

EXPLORING THE EMERGING AREAS OF CORPORATE DISCLOSURES: A BIBLIOMETRIC ANALYSIS

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Abstract

In the current Indian scenario of the financial reporting regime, stakeholders are increasingly looking at the disclosure practices of the companies. Therefore, higher level of transparency is required which implies that there is need of higher level of disclosure. In the present era, the sources of information are not only restricted to annual reports for stakeholders to take decisions. Hence, it is very crucial to have encyclopaedic study on corporate disclosures. The main objective of this paper is to determine the current state of research on corporate disclosure practices across the world. In the present study, literature in subject areas business, management, accounting, economics, econometrics, and finance has been retrieved from Scopus Database and analysed for 15 years between 2009 & 2023. The bibliometric analysis has been conducted using VOS Viewer. This study highlights the trend of publication across two decades, countries and journals along with most cited papers, top journals, most influential authors. Finally, through co-occurrence analysis of keywords, least explored areas have been identified. This paper highlights the gap in the available literature and make recommendations for future research in emerging areas.

Keywords: Corporate disclosures, Stakeholders, PRISMA, Bibliometric analysis, VOS Viewer, disclosure

1- INTRODUCTION

The complexity in the business environment led to increase in the need of disclosing more information to meet the requirements of stakeholders (Simona, 2021). Shareholders are one of the most influential stakeholders to put pressure on management for achieving higher performance and reduce information asymmetry. Financial reporting is used as a tool by companies to minimize asymmetry of information (Grossman, 1981). Agency theory says that management acts as an agent to shareholders so it is expected that management will act in best interests of shareholders. Therefore, shareholders should be well informed by the management by disclosing information to avoid agency costs. Hence, with the growing importance of corporate disclosures it is necessary to study and understand the available literature on current body to find out the research gap and emerging areas of corporate disclosures.

The concept of corporate disclosures is seeming inchoate. Many researchers tried to conceptualize and measure them but still their attempts didn't lead to any universal approach. Cooke and Wallace (1989) defined disclosure is an abstract concept which cannot be measured directly. According to Parker (1992) disclosures means reporting of financial and non-financial information to the stakeholders voluntarily or as per legislation. Haskin et.al. (2009) highlighted the impact of global crisis on the stock market of India in 2008. Its obvious no investor would like to lose his hard-earned money after investing in a portfolio. Therefore, before taking any decision of investing they will go through the company's financial statements and all the necessary information disclosed in annual reports. Hence, if there is lack of sufficient disclosure of information, there are higher chances that investor might shift his decision of making investment to another alternative which seems safer.

Socio-Political Theories have suggested that disclosures should satisfy the societal expectations and change perceptions about firm performance (Roberts, 1992; De Villiers, 2006; Aerts, 2009). Therefore, firm's success is based on fulfilling the needs & satisfying powerful stakeholders, and in return, the chances of survival of firms will increase and firm can expect a perennial flow of vital resources. According to Nakajima & Inaba (2021), stock markets react positively to voluntarily integrated reporting publication by firms. According to Shima and Fung (2019), environmental performance and firm's voluntary disclosure are positively significant. Abdol Mohammadi's (2005) found significant effect of IC disclosure of fortune 500 companies on market capitalization. According to Uyar & Kilic (2012), investors that discloses voluntarily, along with mandatory items, have positive

impact on market price of companies. This alludes to the idea that effective managers share with the public what they do and how they efficiently manage their firms.

Previous bibliometric studies available on this subject area mostly focussed on voluntary disclosures or a specific sub-part of Corporate Disclosures. However, a bibliometric study was conducted on corporate transparency in 2016 which considered 210 papers published till 2014. (Saggese et al.; 2016). Similarly, another bibliometric study was conducted in this subject area on 410 articles published till June 2021 (Bhimavarapu et.al., 2023). There has been a significant increase in research publications around 350 research papers have been published after this study.

From the above discussion, it is evident that concept of corporate disclosures is prominent. Therefore, the authors not only want to understand the concept of corporate disclosures based on available literature but also aimed in finding the emerging areas of this field in this dynamic environment. With the advancement in technology, the stakeholders have also become more aware. So, detailed study on corporate disclosures is the need of hour. Therefore, a bibliometric study of Corporate Disclosures will be helpful in giving a clear picture.

This study presents a comprehensive overview of available literature on corporate disclosures for past 15 years. The present study aimed at acquiring knowledge from the available literature in this field to fill the gap by analysing and representing the available literature through various scientific claims using bibliometric analysis. This study has also identified the research hotspots and emerging areas of Corporate Disclosures which will be helpful for academicians, researchers and practitioners in conducting further research. This rest of the article is organized as follows: Objectives of the study, Research questions, Research methodology, Data analysis and interpretation, Research gap & future propositions and conclusion.

2- RESEARCH METHODOLOGY

2.1- Objectives of the study:

- 1- To review the latest trends in literature of Corporate Disclosures using Bibliometric Analysis.
- 2- To determine the research hotspots in the field of Corporate Disclosures.

2.2- Research Questions:

The main aim of this study is to conduct bibliometric study of Corporate Disclosures. In order to achieve these research objectives, the following research questions have been framed. The research questions of this study have been mentioned in Table-1 with their objectives and method of analysis.

Table -1: Outlook of research development in this study

S. No.	Research Question	Research Objective	Research Methodology
1	What is the publication trend of Corporate Disclosures practices?	To know how literature on Corporate Disclosures evolved over the years	Descriptive analysis (Publication analysis)
2	Which countries contributed the most to research on Corporate Disclosure Practices?	To find out the most contributing countries and highly cited in this area.	Descriptive analysis (Country-wise Publication analysis, Citation analysis)
3	Which journals are leading in the field of Corporate Disclosure Practices?	To determine the leading journals who have contributed the most in this field.	Descriptive analysis (Source title-wise Publication analysis, Citation analysis)
4	Which are the influential articles on Corporate Disclosures?	To discover the most popular papers on Corporate Disclosures	Descriptive analysis (Citation analysis)
5	How is the countries collaboration structure in Corporate Disclosures?	To ascertain the trend of countries collaboration in studies of this field	Network Analysis (Co-authorship analysis)
6	What is the conceptual structure of keywords in Corporate Disclosures?	To identify the least researched areas in this field	Conceptual Analysis (Keyword Co-occurrence analysis)
7	What are the countries' coupling structure in the Corporate Disclosures Practices?	To provide information on similarity in research conducted between two countries	Intellectual Structure analysis (Bibliographic Coupling)
8	Which are the research fronts of the Corporate Disclosures?	To find out theme-wise similar articles of this field.	Intellectual Structure analysis (Bibliographic Coupling)
9	How key authors, journals and keywords are related?	To find out association between key authors, key journals and keywords	Connotation analysis

2.3- Selection of Database

There are various databases for published articles such as Scopus, Web of Science, Google Scholar etc and articles published have either open access or paid access. Basically, the database of Scopus and Web of Science provides superior quality articles with higher citations. So, mostly researchers, academicians, institutions prefer these databases for any sort of analysis. According to Pranckutė (2021), the database of Scopus is more suitable for research purposes as it is interlinked and can filter the data as per our requirements.

In this study, Scopus database has been selected for bibliometric analysis. It was chosen because almost all papers of Web of Science are also indexed in Scopus. The Scopus database give comprehensive overview of research conducted in various domains across the world. It has a database of approximately 24,000 peer-reviewed journals out of which around 6,000 journals are open-access. This database is widely used in almost every domain. The database of Scopus was explored on 10 January 2024 to analyse the output of articles published. The present study is confined to 15 years (i.e., from 2009 to 2023).

2.4- Selection of Keywords

The search criteria for Scopus database comprised of the following keywords “Corporate Disclosure Practices”, “Corporate Disclosure”, “Disclosure Practices”, “Determinants of Corporate Disclosures”, “Disclosure Index” or “Impact of Disclosure practices.” The papers were extracted using advanced search option and a combination of Title-Abstract-keyword was used to retrieve the data for a period of 15 years. The figure 1 shows the entire process of identification, screening and data analysis using a PRISMA flowchart.

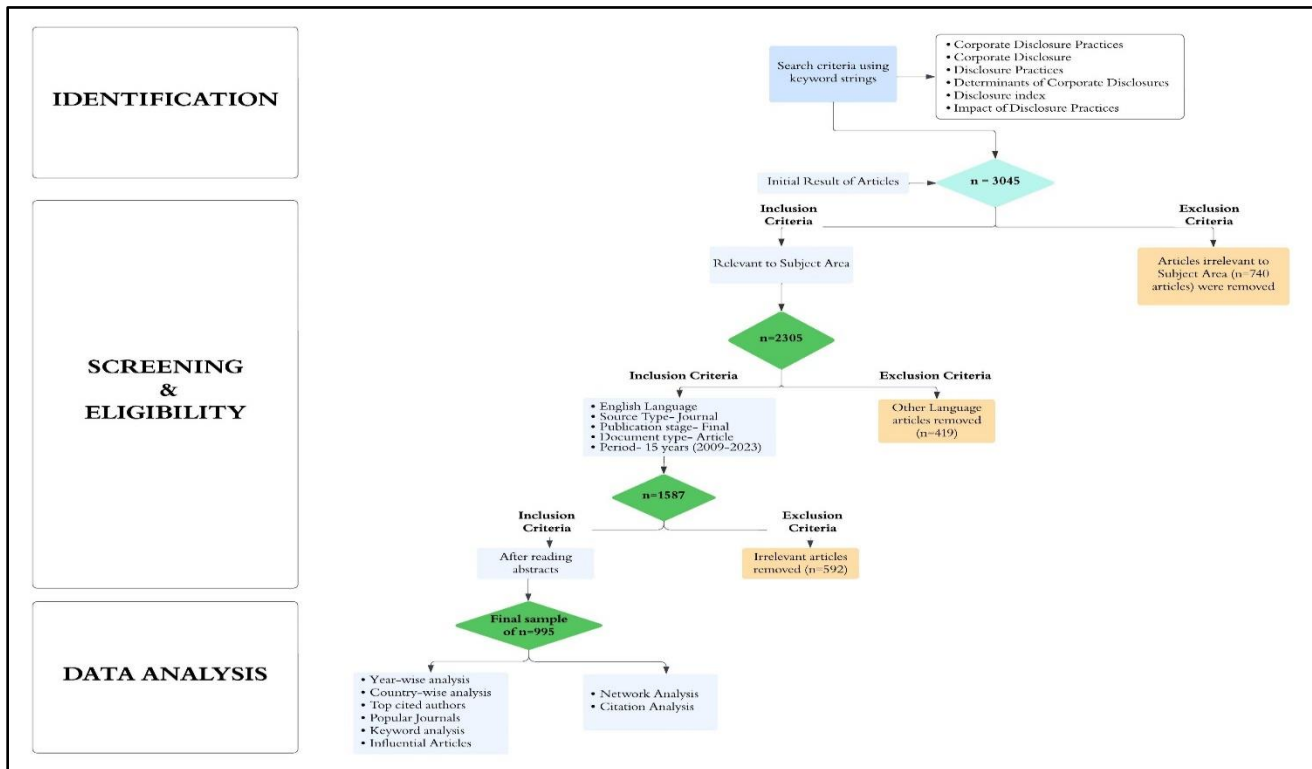


Figure 1: Flowchart of PRISMA

Source: The Authors

Note: This figure represents flowchart of PRISMA to record relevant articles from above searches. Adapted from Gokhale et.al. (2020)

After retrieving and extracting the articles from Scopus database, the relevant articles were selected after screening and the final sample is of 995 articles on which bibliographic methods were applied to reveal the information needed to address research questions. VOS Viewer was developed by Van Eck and Waltman (2010) and is a software widely used to construct network mapping of keywords, authors, countries, and journals. VOS Viewer can build network maps to visualize the relations of selected items, making it easier for interpretation (Gu et al., 2021).

3- BIBLIOMETRIC ANALYSIS

The bibliometric analysis use immense amount of studies in identifying the popular trends in literature of corporate disclosures. Hence, this section lays emphasis on results generated via bibliometric analysis tools.

3.1- Descriptive analysis

This sub-section focusses on a comprehensive view of trends in publication followed by most contributing countries in literature of corporate disclosures and most influential authors, journals and articles to identify the current trends in study of Corporate Disclosure Practices.

3.1.1- Study of articles on the basis of year of publication- The comprehensive study of articles on the basis of year of publication is represented by a bar chart in Figure 2 for the period of 2009 to 2023. Initially in 2009 and 2010 the number of articles published were around 50. After that it grew steadily till 2016, then there was slight decline in number of articles published in 2017. Then, there was an increasing trend in terms of publications of Corporate Disclosures. This scenario indicates that interest in study of Corporate Disclosures among academicians and researchers in past decades has increased significantly. There is quite drop in studies on Corporate Disclosures in 2021 but then it showed an upward trend with highest published articles in 2023 i.e., 171 articles.

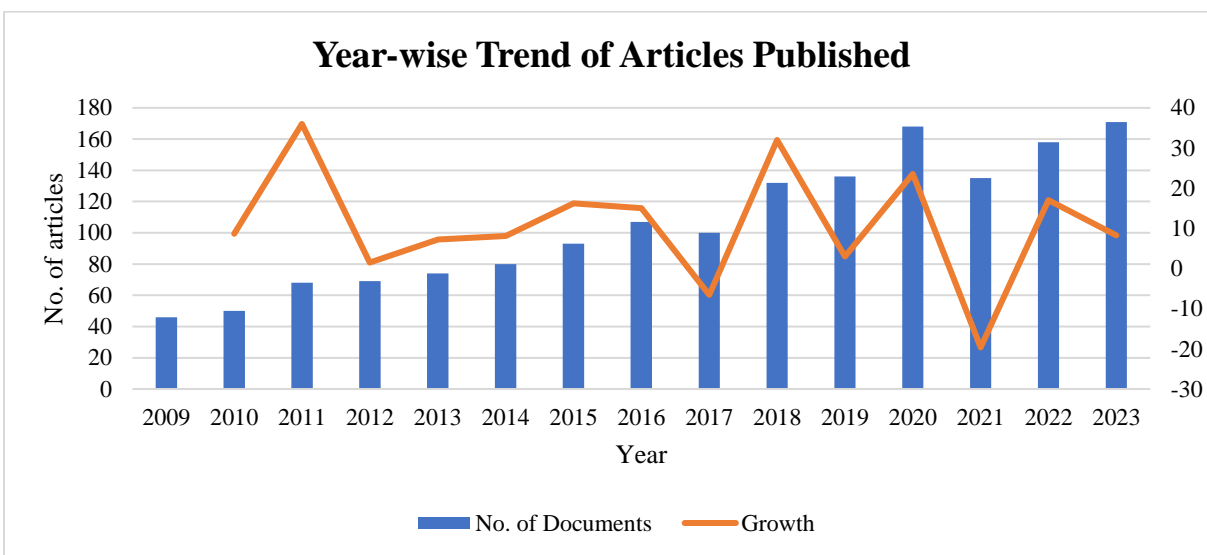


Figure 2: Year-wise trend of articles published between 2009 & 2023.

Source: Developed by the authors using Scopus Database

3.1.2- Most Contributing Countries- A total of 88 countries contributed in study of Corporate Disclosures. The top 10 most contributing countries are listed in the Table-2. Most of the research work is concentrated within UK with total 131 articles. USA has been emerged as a country with second highest with 115 articles published, followed by Malaysia (113), Australia (105) and India (95). Publications from USA have recorded highest number of citations (5,545), followed by UK (4,983) and Australia (4,726).

Table-2: Top 10 most contributing countries

S. No.	Countries	No. of Documents	Total link strength	Citations	Average citations
1	United Kingdom	131	114	4983	38.04
2	United States	115	73	5545	48.22
3	Malaysia	113	47	2671	23.64
4	Australia	105	65	4726	45.01
5	India	95	7	942	9.92
6	Italy	72	33	2909	40.40
7	China	60	45	1382	23.03
8	Indonesia	41	15	500	12.19
9	Spain	39	17	2333	59.82
10	Egypt	38	34	1000	26.32

Source: Summarised by the authors using VOS viewer software

Publishing Trend of articles on Corporate Disclosures around the world

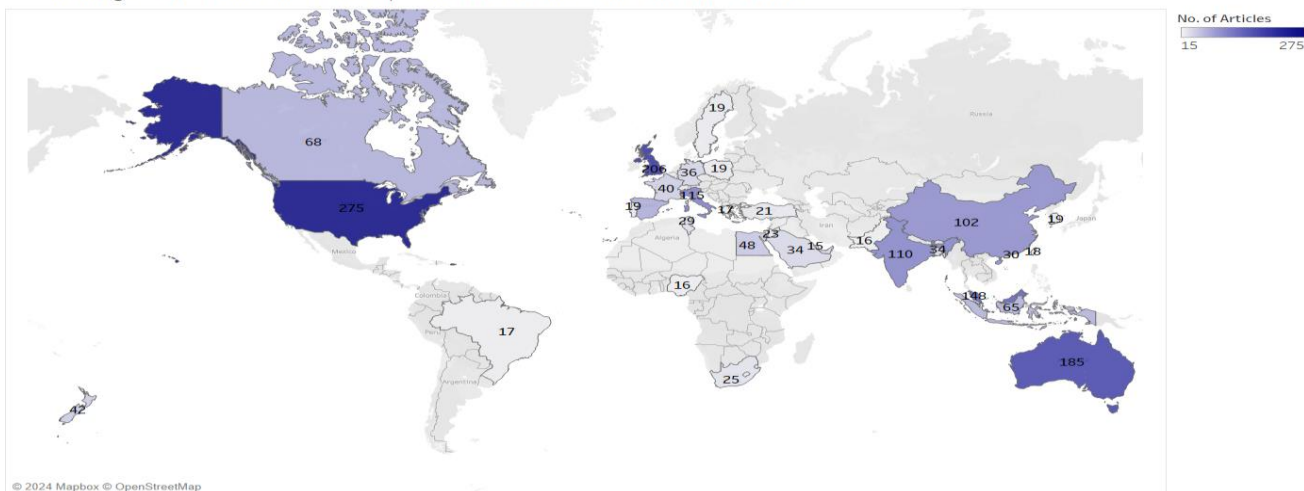


Figure 3: Contributions across the world in terms of number of articles published.

Source: Developed by the authors using Tableau

3.1.3- The most productive authors- The analysis of the most productive authors based on citations can provide a general idea of most contributing authors in the field of Corporate Disclosures. This analysis will assist the future researchers, academicians in the related area. Table 3 presents the most productive authors in the field of Corporate Disclosures based on citations within the period. Among the 313 authors, the studies of Guthrie j. are highly cited with a total of 606 citations, followed by second most productive author Deegan c. (581) and Hussainey k. with 548 citations.

Table-3: Top 20 most productive authors

S. No.	Authors	Citations	Total link strength
1	Guthrie J.	606	28733
2	Deegan C.	581	26320
3	Hussainey K.	548	25816
4	Cooke T.E.	521	26048
5	Jensen M.C.	406	18561
6	Gray R.	384	17451
7	Patten D.M.	355	17685
8	Hossain M.	327	15656
9	Cormier D.	305	14984
10	Verrecchia R.E.	292	12185
11	Shleifer A.	289	12341
12	Gray S.J.	283	13574
13	Garcia-Sanchez I.M.	254	15052
14	Magnan M.	254	12474
15	Ntim C.G.	251	11457
16	Leuz C.	237	9733
17	Abeysekera I.	234	12100
18	Naser K.	230	11422
19	Haniffa R.M.	228	11378
20	Li Y.	227	10044

Source: Summarised by the authors using VOS viewer software

3.1.4- Top most contributing journals- Generally, academic journals are the platforms used by the researchers, academicians to share their thoughts and knowledge. Hence, it is very essential to study that which journals are most contributing to the study of Corporate Disclosures. The most productive journals will be publishing high quality research papers based on recent trends and developments in Corporate Disclosure practices by rigorous peer-reviews of articles.

In this study, Table-4 shows top 20 most contributing journals in the field of Corporate Disclosure ranked according to the number of articles published. There are 322 articles published in the top 20 journals, accounting for 59.96% among all

publications. The *Social Responsibility Journal* has published highest number of articles i.e., 35, followed by *Journal of Applied Accounting Research* (28), *International Journal of Disclosure and Governance* (23), *Journal of Intellectual Capital* (22) and *Corporate Governance (Bingley)* (20).

The number of citations for each journal have been calculated and shown in Table-4 along with the average citations. The *Journal of Business Ethics* has been ranked first in terms of number of citations with total 2,807 citations, followed by *Social Responsibility Journal* (1,653) and *Journal of Cleaner Production* (1,480). Consequently, the journals are also ranked based on total average citations. The *Journal of Business Ethics* has been ranked first in terms of average citations with total 255.18, followed by *Journal of Cleaner Production* (92.5) and *Journal of Accounting and Economics* (82.75).

In the context of H-index, *Journal of Cleaner Production* has highest H-index of 268, followed by *Journal of Business Ethics* with H-index of 229 and *Journal of Accounting and Economics* having H-index of 174.

Apart from this, out of top 20 most contributing journals 9 of them are Q1 Journals & 5 are Q2 journals. The Quartile ranks for the most contributing journals in the field of Corporate Disclosures is presented in the Table 4.

Table-4: Top 20 most contributing Journals

S. No.	Journal	Documents	Citations	Avg. Citations	H-index	SJR Quartile Rank
1	Social Responsibility Journal	35	1653	47.2286	45	Q1
2	Journal of Applied Accounting Research	28	720	25.7143	31	Q2
3	International Journal of Disclosure and Governance	23	469	20.3913	22	Q2
4	Journal of Intellectual Capital	22	1144	52	105	Q1
5	Corporate Governance (Bingley)	20	541	27.05	72	Q1
6	Asian Review of Accounting	17	346	20.3529	28	Q3
7	Journal of Cleaner Production	16	1480	92.5	268	Q1
8	Meditari Accountancy Research	16	253	15.8125	31	Q2
9	Journal of Financial Reporting and Accounting	16	214	13.375	16	Q2
10	Corporate Ownership and Control	15	117	7.8	24	Q4
11	Managerial Auditing Journal	13	843	64.8462	67	Q2
12	Journal of Accounting and Economics	12	993	82.75	174	Q1
13	Business Strategy and The Environment	12	700	58.3333	131	Q1
14	Corporate Social Responsibility & Environmental Management	12	652	54.3333	96	Q1
15	Advances in Accounting	12	515	42.9167	37	Q3
16	International Journal of Managerial and Financial Accounting	12	192	16	15	Q3
17	Journal of Business Ethics	11	2807	255.1818	229	Q1
18	Accounting, Auditing and Accountability Journal	10	656	65.6	112	Q1
19	Pacific Accounting Review	10	307	30.7	27	Q3
20	Accounting Research Journal	10	133	13.3	23	Q3

Source: Summarised by the authors using VOS viewer software

3.1.5- Highly Influential Articles- The analysis of the most influential articles gives an idea of the recent trends and developments in the field of Corporate Disclosures and helps the researchers and academicians in their investigation in related area. The table-5 indicates the top 20 highly influential articles based on the citations within the period. The total citation plays a vital role in determining the impact of an article. As the article having higher number of citations indicates the quality of the published article.

Among the 995 articles, the article with the highest number of citations is “*Determinants of corporate social responsibility disclosure ratings by Spanish listed firms*” by Shapiro B. (2009), published in the *Journal of Business Ethics* and had a total 738 citations. The “*Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy*” by Kaya D., Pillhofer J.A. (2013) has been ranked as the second most cited article with 699 citations, followed by Hsu W.-H., Chang Y.-L. (2011) which is “*Determinants of voluntary CSR disclosure: Empirical evidence from Germany*” (529).

Table-5: Details of Top 20 highly influential articles

S. No.	Publication Year	Document Title	Authors	Journal Title	Total no. of citations
1	2009	Determinants of corporate social responsibility disclosure ratings by Spanish listed firms	Shapiro B.	Journal of Business Ethics	738
2	2013	Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy	Kaya D., Pillhofer J.A.	Journal of Business Ethics	699
3	2011	Determinants of voluntary CSR disclosure: Empirical evidence from Germany	Hsu W.-H., Chang Y.-L.	Review of Managerial Science	529
4	2015	Voluntary environmental disclosure quality and firm value: Further evidence	Hasan I., Song L., Zhan M., Zhang P., Zhang Z.	Journal of Accounting and Public Policy	455
5	2009	The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies	Mir M.Z., Chatterjee B., Rahaman A.S.	Social Responsibility Journal	397
6	2009	The supply of corporate social responsibility disclosures among U.S. firms	Abad D., Sanabria S., Yague J.	Journal of Business Ethics	337
7	2013	Corporate boards, audit committees and voluntary disclosure: Evidence from Italian Listed Companies	Ferguson A., Feigin A., Kean S.	Journal of Management and Governance	314
8	2018	The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking Sector	Tiron-Tudor A., Nistor C.S., Stefanescu C.A.	Journal of Business Ethics	287
9	2014	Legitimizing Negative Aspects in GRI-Oriented Sustainability Reporting: A Qualitative Analysis of Corporate Disclosure Strategies	Freedman M., Park J.D.	Journal of Business Ethics	279
10	2013	Individual investors and financial disclosure	Condie J., Dunmore P.V., Dunstan K.	Journal of Accounting and Economics	256
11	2013	Is integrated reporting determined by a country's legal system? An exploratory study	Hope O.-K., Kang T., Kim J.W.	Journal of Cleaner Production	242
12	2012	Information disclosure and corporate governance	Maia H.A., Formigoni H., da Silva A.A.	Journal of Finance	239
13	2018	Role of Country- and Firm-Level Determinants in Environmental, Social, and Governance Disclosure	Jaggi B., Allini A., Macchioni R., Zagaria C.	Journal of Business Ethics	235
14	2014	Corporate social responsibility and financial performance in Islamic banks	Cai Y., Dhaliwal D.S., Kim Y., Pan C.	Journal of Economic Behavior and Organization	235
15	2010	Media pressures and corporate disclosure of social responsibility performance information: A study of two global clothing and sports retail companies	Buniamin S., Alrazi B., Johari N.H., Abd Rahman N.R.	Accounting and Business Research	232
16	2019	The effect of economic policy uncertainty on investor information	Ashfaq K., Rui Z.	Journal of Accounting and	224

		asymmetry and management disclosures		Economics	
17	2012	Corporate social responsibility: The disclosure-performance gap	Shil N.C., Chowdhury S.S.	Tourism Management	222
18	2017	Integrating Environmental, Social and Governance (ESG) Disclosure for a Sustainable Development: An Australian Study	Rosman R., Che Azmi A., Amin S.N.	Business Strategy and the Environment	214
19	2014	Stakeholders' power, corporate characteristics, and social and environmental disclosure: Evidence from China	Skouloudis A., Jones N., Malesios C., Evangelinos K.	Journal of Cleaner Production	205
20	2016	The association between integrated reporting and firm valuation	James T.L., Nottingham Q., Collignon S.E., Warkentin M., Ziegelmayer J.L.	Review of Quantitative Finance and Accounting	202

Source: Summarised by the authors using VOS viewer software

3.2- Network Visualization

The network analysis visualizes the co-authorship of countries, co-occurrences of keywords, bibliographic coupling of countries and articles. The network analysis portrays better graphical visualization of collaborations, co-occurrences and bibliographic coupling through nodes having different sizes, color and thickness of connecting lines (Zhang et al., 2019).

3.2.1- Countries Co-Authorship- The analysis of co-authorship between countries examines the level of strength of collaboration among various countries. This also gives deeper understanding of contributions made by various countries in the related area. (Tandon et al., 2021). In this study, the limit for minimum number of documents was set to three documents. This will facilitate in network analysis of most collaborative countries in research on Corporate Disclosures. Hence, by this limit it implies that selected companies will have at least three articles published. So, the 55 countries have been selected out of 88 countries for the analysis and countries with unconnected nodes have been excluded.

The Table-6 shows top 10 most collaborative countries ranked according to articles published and total link strength. The term total link strength refers to the number of articles published in collaboration with authors from different countries. Hence, the country having highest total link strength is the most collaborative country.

UK is the leading country with highest number of articles published along with being the most collaborative country having total link strength of 114 and 17 link numbers. Its not surprising that USA is the second most collaborative country with total link strength of 73 and 23 link numbers. Subsequently, Australia is the third most collaborative country with 18 link numbers and total link strength of 65. From this analysis, it can be seen that mostly the developed countries are more interested in collaborating with developed and under-developed countries such as Nigeria, Kenya etc.

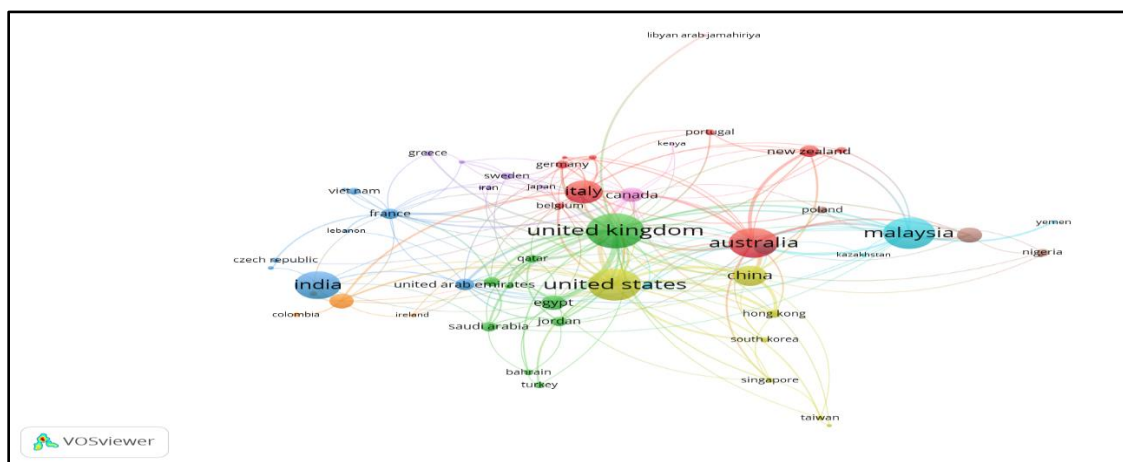
The figure 4 portrays the network analysis of co-authorship among countries in publishing articles on Corporate Disclosures. The network analysis is a visualization map of collaborative countries depicted by nodes in different color and sizes connected with lines. The size of node shows number of articles published by a country. Hence, the bigger the node size, higher the articles have been published by that country. The connecting lines to nodes shows those countries have published articles in collaboration. Different color of nodes depicts the various clusters formed. In this figure, countries with red, green, yellow blue and sky blue color were found to be the most collaborative and influential country in terms of articles published on Corporate Disclosures. The network analysis of countries co-authorship is based on documents weights. It can be seen that UK, USA, Australia, Malaysia & India are the most collaborative countries.

Table-6 Co-authorship among countries

S.no.	Country	Documents	Links	Total link strength
1	United Kingdom	131	37	114
2	United States	115	23	73
3	Australia	105	18	65
4	Malaysia	113	17	47
5	China	60	17	45
6	Canada	37	17	34
7	Egypt	38	14	34
8	Italy	72	16	33

9	United Arab Emirates	28	17	30
10	France	24	18	27

Source: Summarised by the authors using VOS viewer software



Source: Developed by the authors using VOS viewer software

Figure-4 A network analysis of countries co-authorship

3.2.2- **Keyword Co-occurrences-** The keyword co-occurrence analysis is one of the most popular techniques used in bibliometric analysis. In this study, analysis has been conducted on 2195 keywords to reveal the research hotspots and emerging areas of Corporate Disclosures. The minimum keyword frequency has been limited to eight to identify the essential keyword co-occurrence. So, 91 keywords met the threshold but only 72 keywords were interconnected, which were used in visualization analysis. The unconnected keywords were excluded. The Table 7 highlights the top 10 keywords ranked according to the total link strength. The “Corporate Governance” has the highest total link strength (264) followed by “Disclosure” (204) and “Voluntary Disclosure” (142).

The visualization of network analysis of keywords is shown in figure 5. The nodes here represent the keywords which are connected with lines representing co-occurrences. The size of the nodes reflects the frequency of keywords on Corporate Disclosures and the colors of nodes shows the various clusters of keywords.

In this study, through network analysis of keyword co-occurrences the keywords were divided into 8 major clusters. The details of cluster-wise keywords are shown in Table 8 below. The top 5 most co-occurring keywords are Corporate Governance, Disclosure, Voluntary Disclosure, Content Analysis, Corporate Social Responsibility. Basically, Corporate Governance, Voluntary Disclosure, Corporate Social Responsibility are the sub-parts of Corporate Disclosures and Content analysis is one of the techniques to study the corporate disclosures.

Table-7 Keywords’ Co-occurrences

S.NO.	Keyword	Occurrences	Links	Total link strength
1	Corporate Governance	175	59	264
2	Disclosure	140	55	204
3	Voluntary Disclosure	110	41	142
4	Content Analysis	93	47	146
5	Corporate Social Responsibility	92	41	147
6	Corporate Disclosure	78	42	94
7	Integrated Reporting	45	37	85
8	Intellectual Capital	45	25	81
9	Legitimacy Theory	38	31	74
10	Annual Reports	37	30	60
11	Disclosure Index	36	29	60
12	Financial Reporting	36	26	50
13	Sustainability Reporting	31	28	61
14	Ownership Structure	28	22	50
15	Environmental Disclosure	28	24	41

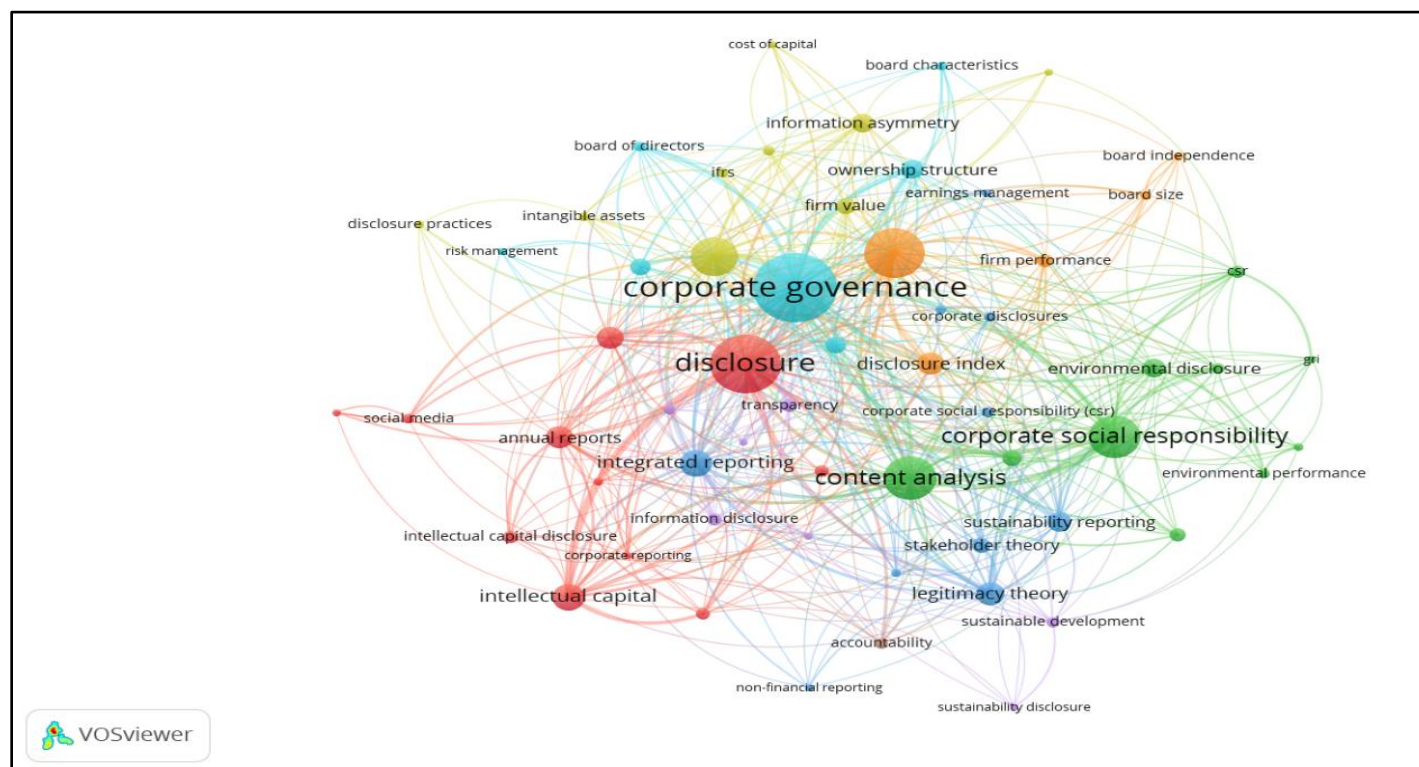
16	Information Asymmetry	28	20	40
17	Sustainable Development	25	27	55
18	Risk Disclosure	25	16	29
19	Agency Theory	24	22	51
20	Sustainability	24	24	44

Source: Summarised by the authors using VOS viewer software

Table-8 Clusters of Keywords Co-occurrences

Cluster	Color	No. of keywords	Major Keywords
1	Red	16	Disclosure, corporate disclosure, disclosure index, financial reporting, non-financial information, social media, disclosure quality, corporate reporting, voluntary disclosures, internet reporting
2	Green	12	corporate social responsibility, environmental disclosure, sustainable development, global reporting initiative, environmental performance, environmental reporting, sustainability disclosure
3	Blue	11	integrated reporting, sustainability reporting, CSR disclosure, corporate disclosures, textual analysis, earnings management, non-financial reporting
4	Yellow	10	Sustainability, financial performance, transparency, information disclosure, disclosure practices, value relevance, profitability, ESG
5	Purple	8	content analysis, intellectual capital disclosure, human capital disclosures, firm characteristics
6	Sky blue	7	corporate governance, voluntary disclosure, ownership structure, firm performance, board size, board characteristics board independence
7	Orange	4	CSR, GRI, institutional investors, climate change
8	Brown	4	risk disclosure, agency theory, risk management

Source: Summarised by the authors



Source: Developed by the authors using VOS viewer software

Figure-5 A network analysis of keywords co-occurrences.

3.3- Bibliographic Coupling- The concept of bibliographic coupling was first introduced by Kessler (1963). The bibliographic coupling helps in determining the relatedness within the articles published by various countries or association with the articles published on Corporate Disclosures.

3.3.1- Bibliographic Coupling of Countries- The bibliographic coupling of countries shows how many times two or more countries cites an article is in their reference list of documents of published (Gu et al., 2021). Basically, this shows the similarity between the two publications. In this study, the bibliographic coupling of countries is presented through a visualization map of network analysis shown in figure 6. Countries are represented in each node having various colours reflecting the number of clusters formed. The size of the node shows country's contribution. Hence, bigger the node size, higher the contribution by that country. In this study, the limit of minimum number of documents of a country is set to three. So, 56 countries out of 88 countries met the threshold. Similar to the results shown in Table 6, bibliographic coupling analysis also revealed that UK, USA, Malaysia, Australia & India are the top 5 countries in studies on Corporate Disclosures.

The bibliographic coupling of countries involved seven clusters with different colours (red, yellow, purple, blue, sky blue, green & orange) as shown in figure 6. UK is the leading country with significant cluster (Red cluster) and is closely related with India, Egypt, Saudi Arabia, UAE, Jordan. US being the second largest cluster (Purple cluster) closely coupled with Canada. Malaysia is the third largest cluster (Blue cluster) closely related with Brazil, Poland, Nigeria etc. Australia is the fourth leading country with significant cluster (Yellow cluster) coupled with Italy.

Basically, UK is located at the core of network, has a strong influence on research work of Corporate Disclosures as many countries are coupled with UK.

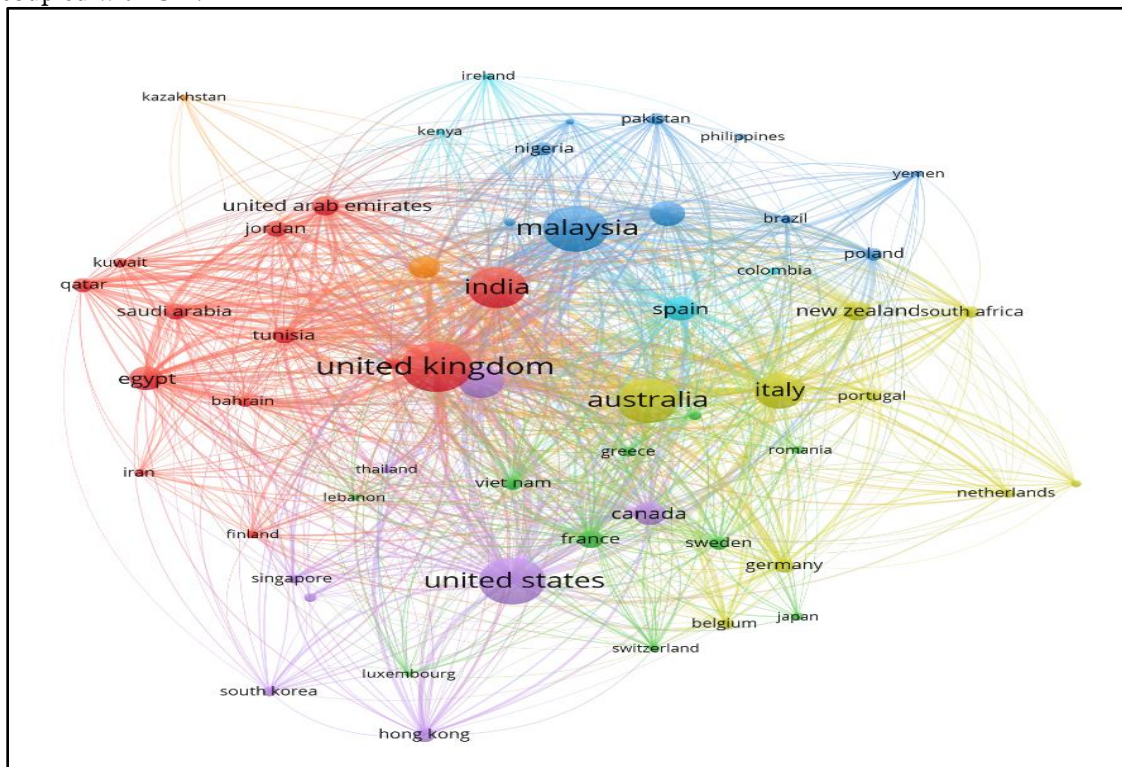


Figure-6 Bibliographic coupling of countries

3.3.2- Bibliographic Coupling of Articles- The bibliographic coupling of articles shows when a same article is cited as reference in two or more articles published. In other words, bibliographic coupling of articles determines articles of similar interests. This is represented by network analysis showing relatedness of articles on Corporate Disclosures through nodes of different colours and sizes. The colour of nodes shows the cluster of articles related to Corporate Disclosures while the node size shows the total number of citations of that article. Figure 7 shows the bibliographic coupling of articles having at least 20 citations. 369 articles met the threshold out of 994 but only 366 were linked rest unconnected ones were excluded from analysis.

The articles on Corporate Disclosures were grouped into eight clusters with different colours of nodes such as red, green, yellow, purple, blue, orange, sky blue and brown. Yellow and brown clusters are located far away from other six clusters. Since, the articles with similar references are categorized with same colours of nodes.

The red cluster is largest cluster comprising of 106 publications and a total of 9,098 citations with an average of 85 citations per article. The majority of publications in this cluster work on environmental disclosure, corporate social responsibility disclosure,

corporate social and environmental disclosure, ESG, corporate sustainability reporting and integrated reporting. The highly cited article in this red cluster focuses on determinants of corporate social responsibility disclosure ratings. (Reverte C. (2009); 746 citations).

The green cluster is the second largest cluster with 84 articles. The articles published in this cluster recorded 5,703 citations, with an average citation of 67 citations per article. In this cluster, most of the articles published focussed on financial disclosure, information disclosure, corporate governance, corporate disclosure and narrative disclosures. However, very few articles were published on internet reporting, web-based corporate reporting, XBRL reporting. The most cited article in this cluster focussed on determinants of voluntary disclosures (Gamerschlag R. et.al, 2011; 535 citations).

The blue cluster is the third largest cluster, containing 64 articles published with 3468 citations, averaging 56 citations per article published. Most of the articles in this cluster studied on risk disclosure practices, association between corporate governance and disclosure practices, board composition, risk reporting, ownership structure, government ownership etc. Few articles have been published on aggregate disclosures, mandatory disclosures, signalling firm performance through corporate disclosures. Such as the most cited article in this cluster has studied on relationship between corporate social responsibility disclosure and corporate governance characteristics (Said R. et.al, 2009; 399 citations).

There are few clusters which are very far away from group of clusters. It is found that nodes which are far away from group and are smaller in size are the hotspots areas in which very less research has been conducted. Such as in sky blue cluster, Holland. J & et.al. (2012) studied on use of intellectual capital information. Similarly, Garay. U & et.al. (2013) studied on internet-based corporate disclosures and market value shown in yellow cluster.

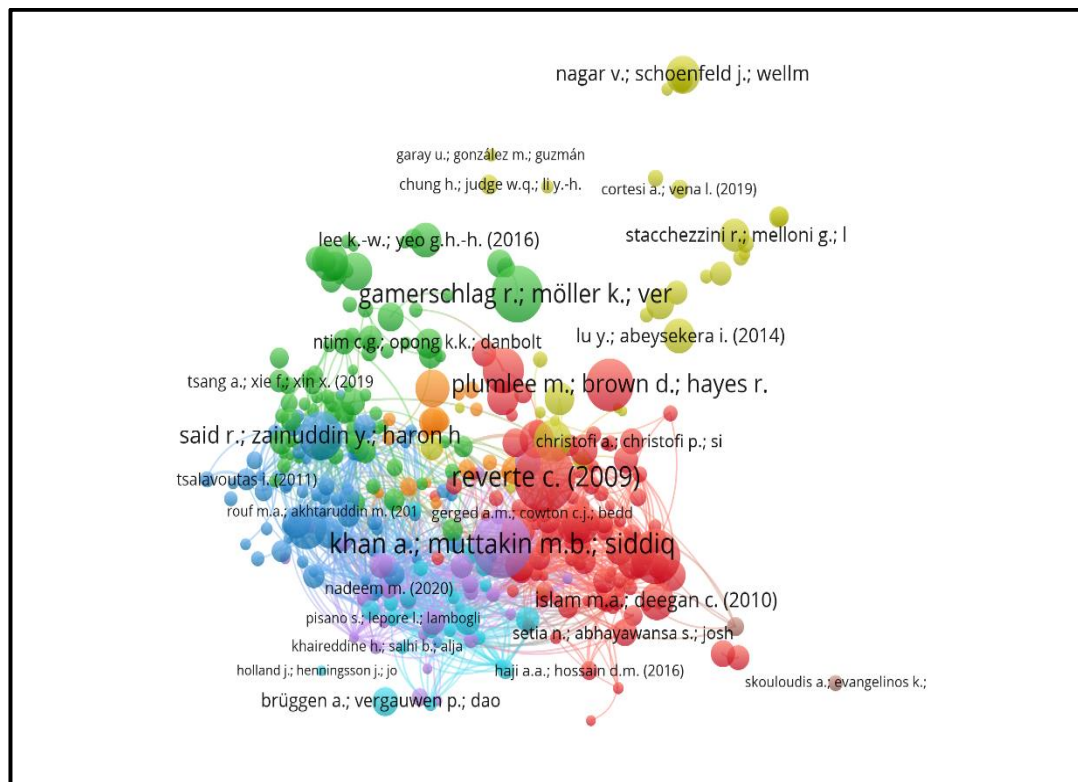


Figure-7 Bibliographic coupling of articles

3.4- Association between Source, Authors and Keywords- The figure 8 shows the association between the journals, authors and keywords used in various articles published on Corporate Disclosures. Visibility of the article is increased if it is more collaborative with the authors across the countries. The figure 8 has bars each of authors, keywords and sources. The bigger the size shows more work is done using that keyword or by that author or more articles have been published in that journal. The keywords such as corporate governance, disclosure, corporate social responsibility, Voluntary disclosure have bigger bar size which shows that a lot of studies have been conducted using these keywords. On the other hand, some keywords such as sustainability, risk disclosure, environmental disclosure have very small size of bars indicating very less studies conducted using these keywords. There is scope for collaboration between the writers and the publications which will lead to rise in number of citations and increase articles visibility.

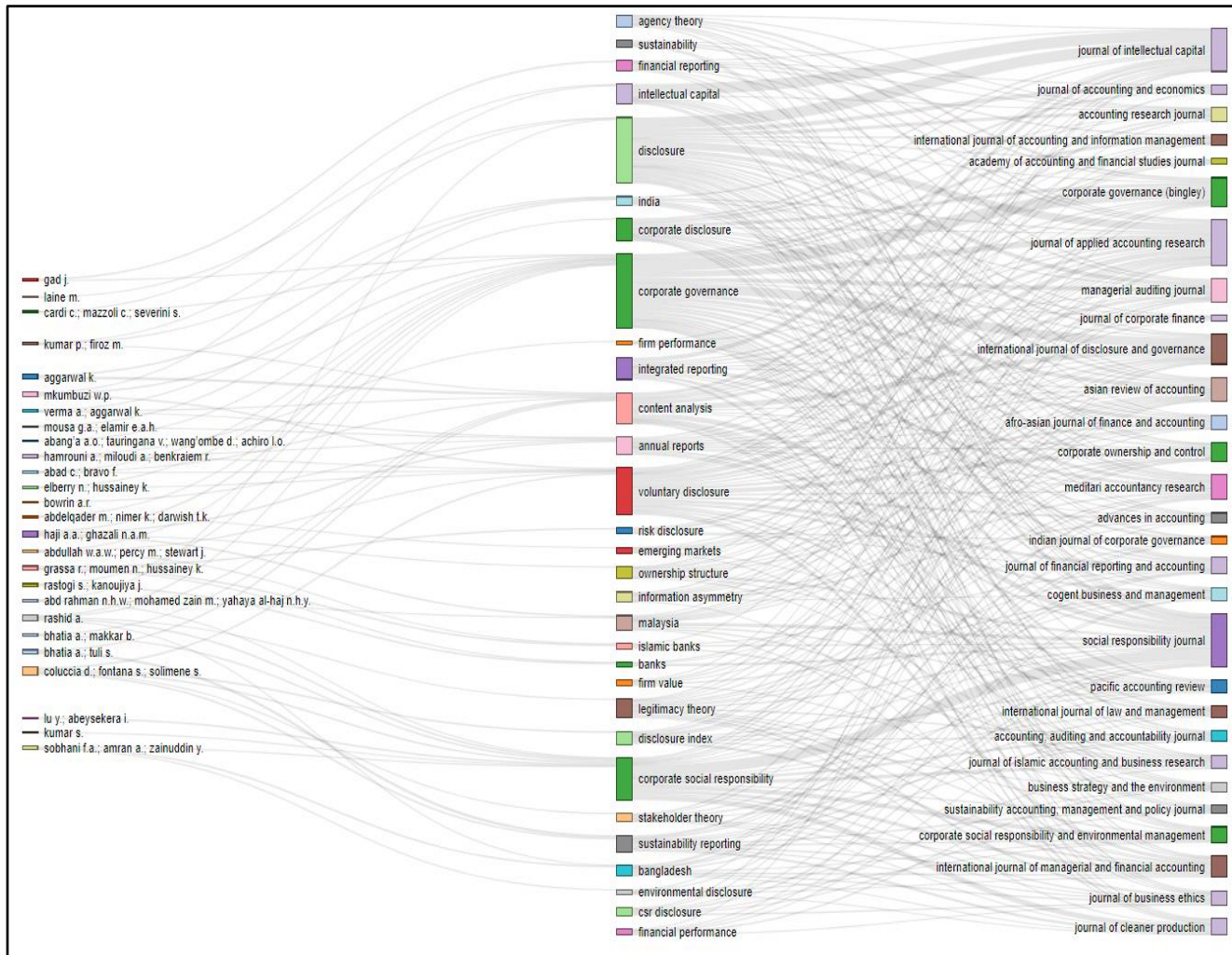


Figure 8: Connotation of Key Authors, Keywords & Key Journals.

Source: Developed by the authors using Scienescape

4 - FUTURE RESEARCH PROPOSITIONS

With regard to broad area of Corporate Disclosures based on bibliometric analysis, this section discusses the least researched areas as the emerging hotspots in the field of Corporate Disclosures. This section will be helpful to academicians, practitioners and research scholars in identifying the emerging areas and prospective studies required to be carried out in future.

The result of bibliometric analysis shows that a lot of research has been carried out on Corporate Governance, Corporate Social Responsibility and their determinants etc. But from the network diagram of keyword co-occurrences as shown in Figure 5, there are many areas in which very less research has been carried out, such as ESG, intellectual capital disclosures, human capital disclosures, determinants of risk disclosure, level of compliance of mandatory disclosures, non-financial disclosures, internet reporting, social media reporting, information disclosure, Corporate Sustainability, XBRL reporting, carbon disclosure, isomorphism etc.

Based on identification of emerging hotspots, nvarious research questions can be formed such as:

RQ-1: Is there association between non-financial disclosures and firm performance?

RQ-2: What are the drivers of risk disclosures?

RQ-3: Will higher level of environmental reporting enhance the market performance?

RQ-4: What is the influence of ESG in non-financial sector?

RQ-5: Whether online reporting influences profitability of the firms?

RQ-6: Is there any influence of social media reporting on stock returns?

RQ-7: Can frequency of online reporting lead to variation in stock prices and volume?

RQ-8: What issues and challenges firms might face due to excessive online reporting?

RQ-9: Which type of disclosures are more beneficial either continuous or periodical disclosures?

RQ-10: What are the mechanisms through which environmental information disclosures affects firm performance?

RQ-11: What are the opportunities and challenges in implementing XBRL reporting?

RQ-12: Is mandating XBRL reporting beneficial? How will be its impact on quality of financial reporting?

5- FINDINGS

This study has made an attempt to review the trends in research on Corporate Disclosures during the period from 2009 to 2023 using bibliometric analysis. The bibliometric analysis showed significant research has been conducted in the field of Corporate Disclosures. Meanwhile, UK is the biggest contributor in the field of Corporate Disclosures with 131 articles published. Social Responsibility Journal has been ranked top journal in terms of no. of articles published whereas Journal of business ethics is the most cited journal with total citations of 2807 and average 255 citations per article. The top three most influential articles were written by Shapiro B. (2009), Kaya D. (2013) and Hsu W.-H. (2011).

According to the network analysis of collaboration among countries, the countries were divided into nine significant clusters out of which UK, US, Australia, Malaysia, India, Sweden, Indonesia, Canada and Spain are the leading countries of every cluster in terms of articles published. The most used top 3 keywords are Corporate Governance, Disclosure and Voluntary Disclosure with highest usage and link numbers. In bibliographic coupling of countries UK has substantial influence as many countries are coupled with UK. On the other hand, coupling of articles has divided articles into eight clusters as shown through network diagram. The association between authors, journals and keywords shows that there is scope for collaboration among authors and top journals to increase visibility of articles and enhance collaborative research leading to higher citations.

6- CONCLUSION

This study can assist the future researchers in deciding their research plan using a scientific approach. The bibliometric analysis showed significant research has been conducted in the field of Corporate Disclosures. In this study, various unexplored areas have been identified such as XBRL reporting, social media reporting, internet reporting etc which can be a stepping stone for future researchers who want to explore this field with deep understanding.

The study has faced limitations, the first is accuracy of data extracted from Scopus Database. There are chances it might be different slightly even though by searching through same keywords and steps but on different dates. Such as the search query for this study was retrieved on 10 January 2024 now searching for same after this date might have slightly different results as articles might be published after that time.

Secondly, the accuracy of results obtained will depend on the source from where data is extracted. Although data has been extracted from Scopus database following PRISMA. But only single database is used in this study which shows might be higher quality articles on Corporate Disclosures may have not been included.

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