



REST Journal on Banking, Accounting and Business

Vol: 2(1), March 2023

REST Publisher; ISSN: 2583 4746

Website: <http://restpublisher.com/journals/jbab/>

DOI: <https://doi.org/10.46632/jbab/2/1/15>



Internal Control System: A Bibliometric Analysis for Sustainable Growth

*¹Preeti, ¹Anuja Dhyani, ²K.R Jain

¹H.N.B.Garhwal University, Srinagar, Uttarakhand, India.

²D.A.V. (P.G.) College, Dehradun, Uttarakhand, India.

Corresponding author Email: wllp1996k@gmail.com

Abstract: *an internal control system is to ensure the efficacy of business organizations. This works with the defined reporting of annual reports with compliance of laws and regulations. The internal control system (ics) is an evaluative component of an audit tool that can provide a strong and competent working condition. This study presents a bibliometric analysis that provides insights to the growth in internal control system and data is been gathered from dimensions database i.e., graphically analyzed through vos viewer software to analyze the trends of research. Thus, various tools like co-citation, bibliographic coupling among authors, sources, countries etc. Will represent how the research was conducted and will provide better outcomes for sustainable growth in research literature.*

Keywords: *bibliometric analysis, internal control, vos viewer, efficiency, sustainable, dimensions*

1. INTRODUCTION

Internal control is a subset of internal audit. Internal control system act as a shield to protect the system from detection of errors. It helps in ease of compliance with regard to taxation and laws. In this context “internal control” and “internal audit” are been taken in filtration to understand about the analysis further explained. The growth of system depends on how effectively it is utilized and how it is evaluated.

This concept was propounded by American Institute of Certified Public Accountants in the year 1949 (Lakis & Girinas 2012). Internal control provides the plans, methods, and procedures that are benefited from in realizing the objectives; also, it serves as a first line of Défense against the outer environment of the enterprises concerning the fault and corruption issues. It helps in achieving administration role with full control. reliability. IC provides various technique that are to be applied to provide outcome for auditors check-list. Continuous auditing is done to withdraw the traditional auditing. It helps to detect the suspicious transactions on time. It helps auditors to provide end results.

The total of 17 sustainable development goals (SDGs) are been adopted for 2030 agenda. The principle of “leaving no one behind”, is enlisted to provide a holistic approach in achieving sustainable development for all.

2. BACKGROUND

Sustainable development goal 4 deals with quality education thus research in internal control system plays a vital role another sustainable development goal is goal 8 decent work and Economic growth. Any institution upholds the major role on transformation for any economy. For the growth of economy stakeholders as well as researcher’s role lies under the sustainable development. The term, “Internal Control System” is been taken to find the transparency in the terms of sustainable growth.

The five basic elements provided by COSCO framework “Control environment, risk assessment, control activities, information and communication and monitoring” it will provide all the institution to keep a track of their activities in regard to reduce the unnecessary expenditure and increase the profit for the welfare of economy.

The analysis among the literature will provide scholars the best sources and the total number of citation in regard to number of publications done. The shift of economy towards the faster pace and for better co-ordination among them. It becomes important to understand the role and check on transparency for better compliance. It enables ease to entrepreneurship, promoting infrastructure and development.

3. METHODS

a. Bibliometric Analysis

Bibliometric analysis is the analog inspection of organized data. It is used for decoding and networking the increasing scientific data and developing nuances of a well-settled field to take cognizance of the huge amount of unstructured data (Donthu et al., 2021). The dialogue on bibliometrics is ongoing since the 1950s (Wallin, 2005) which suggests that it is not a new technique for analyzing data, however, its penetration into business and management research is quite recent (Donthu et al., 2021). It utilizes a large volume of bibliometric data.

i.e., qualitative data to generate both qualitative (for the interpretation only) and quantitative (for both evaluation and interpretation) information. The study followed the following, steps:

1. Identifying the field of research
2. Selecting the database,
3. Adjusting the research criteria,
4. Clubbing and classifying the recovered data,
5. Analyzing the data.

b. Choice of Database and Data Extraction

The information is taken from Dimensions. Dimensions is a Digital Science, citation database launched in 2018. Dimensions adopted a “freemium” business model that provides free access to the publication database along with the institutional model, called Dimensions Plus (Schonfeld, 2018). Dimension holds over 128 million publications (extending from articles, books, book chapters, preprints, monographs, and conference proceedings) with more than 1.6 billion citations till June 2022. Studies have found that, in comparison to Scopus and the WoS, Dimensions has alike or better publications and citations coverage and it can be a good alternative to other popular databases (Harzing, 2019; Martin-Martin et al., 2020; Thelwall, 2018, and Visser et al., 2019). The study analyzed the articles published from 1991 to 2022, as the year 1991 brought new economic reforms in the economy. The selection criteria of article naming titles, abstract with “Internal Control System”, “Internal Audit” was selected. The selected field of research was Subject Area: “Commerce, Management, Tourism and Services. The total result was 57,876 which was further refined with the area of “Accounting, Auditing and Accountability” making the result of 2302 total articles selected. Then selection of articles with keywords “Internal Control” or “Internal audit” in the field of title, abstract was refined making it to final selection of total 1474 articles. This result was conducted in the month of December 2022.

TABLE 1. Search criteria and article selection

Filtering Criteria	Reject	Accept
Search engine: Dimensions Search date: 02 December 2022 Search Term: “Internal Control System” Subject Area: “Accounting, Auditing and Accountability” “Commerce, Management, Tourism and Services Time Screening: 1962-2022 Only Articles and Proceedings were taken Document type:	55574	57876
Article Selection Erroneous records screening: Include document with valid author information only Language Screening: Include documents in English only Content Screening: Include articles if Titles, abstract, and keywords Indicate relevance to scope of study of internal control system only in financial institutions	381	2302
	25	1921
	422	1474

Note(s): This table discloses the systematic procedure adopted to find right number of articles for review. The search terms were derived through a brainstorming among the authors consisting of subject- matter and methodological experts.

c. Codification Process

Once filtration was complete data was exported from Dimensions and a CSV file comprising the complete registry with the variables of publication id, DOI, title, abstract, source title/anthology title, publication year, volume, issue, pagination, authors, authors affiliations – the name of research organization, authors affiliations

- country of research organization, dimensions URL, times cited and cited references was created.

d. Indicators

The present study utilizes the quantity, quality, and structural indicators given by Cadavid-Higueta et al., (2012) (as cited by Castillo-Vergara et al., 2018). The quantity indicators measure productivity in terms of the number of publications, quality indicators measure the efficiency by the frequency count of the citations of an author, publication, or, journal in other publications, while, structural indicators compute the relatedness among authors, countries, and institutions.

e. Data Analysis Tools

The tools utilized through VOS Viewer software. VOS viewer version 1 .6.18 was used in this study. Microsoft excel is also used to export and make the data screening.

4. RESULTS

Authors and Organization with Country

The total of 1474 articles were analyzed to find the top 20 with Author name, Organization and country. It can be analyzed through Table 1 showing Total publication (TP) AND Total Citation (TC). Sarens, Gerrit. the top among authors with maximum citation of 298 after this Alles, Michael has citations with 251.

TABLE 1. Top 20 Authors, Organisation and Countries

TC	Author	TP	TC	Organization	TP	TC	Country	TP
251	alles, michael	3	126	Arizona state university	4	895	Australia	32
46	arnold, vicky	3	88	Bentley university	6	70	Austria	7
143	bedard, jean c.	3	123	Drexel university	4	439	Belgium	10
20	bátiz-lazo, bernardo	3	110	Georgia state university	4	302	Canada	18
143	curtis, mary b.	3	487	Harvard university	5	427	China	76
33	evans, elaine	3	570	Indiana university	5	174	Finland	7
140	hooghemstra, reggy	3	119	Iowa state university	5	240	Germany	17
180	hoque, zahirul	4	504	Maastricht university	5	57	Ghana	6
43	janvrin, diane j.	4	333	rutgers, the state university of new jersey	9	265	Italy	17
25	lee, ho-young	3	156	University of antwerp	4	107	Japan	16
112	maroun, warren	3	186	University of arkansas system	4	188	Malaysia	17
193	masli, adi	3	228	University of kentucky	6	709	Netherlands	15
65	murthy, uday s.	4	265	University of manchester	4	268	New zealand	11
63	nagy, albert l.	3	175	University of north texas	4	62	Portugal	7
20	noguchi, masayoshi	3	115	University of the Witwatersrand	4	138	South Africa	6
22	pamungkas, bambang	3	158	University of vaasa	5	689	South korea	14
202	richardson, vernon j.	4	87	Unsw sydney	4	251	Spain	11
289	sarens, gerrit	6	107	Virginia tech	4	63	Taiwan	6
142	sutton, steve g.	5	121	xi'an jiaotong university	6	1477	United Kingdom	49
29	watson, marcia weidenmier	3	101	xi'an university of finance and economics	4	5160	United states	202

Maastricht university and Harvard university have highest number of total citations. In the context of countries United States have a greater number of citations then after United Kingdom and least amongst 20 is the country Ghana.

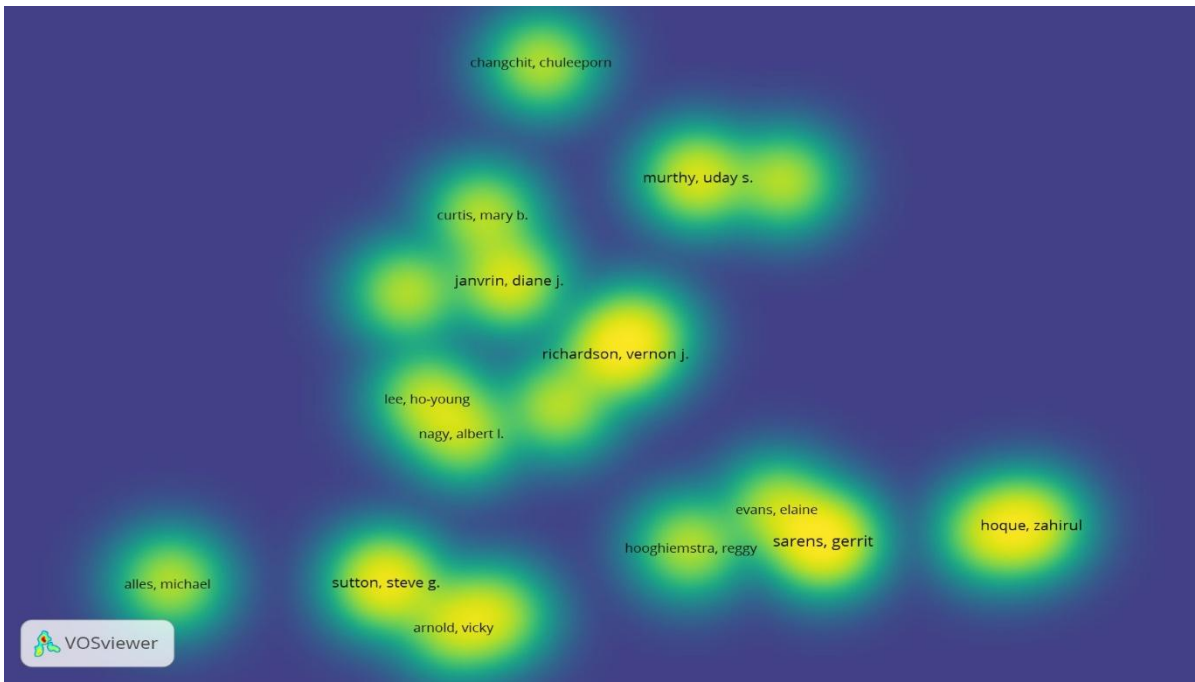


FIGURE 1. Collaborative Research Networks between Authors. Items that do not have link with others are not included in the analysis.

In the above figure Density Visualization of VOS viewer was utilized that is showing the top authors with 5 clusters. Bibliographic coupling is done to make a graphical presentation.

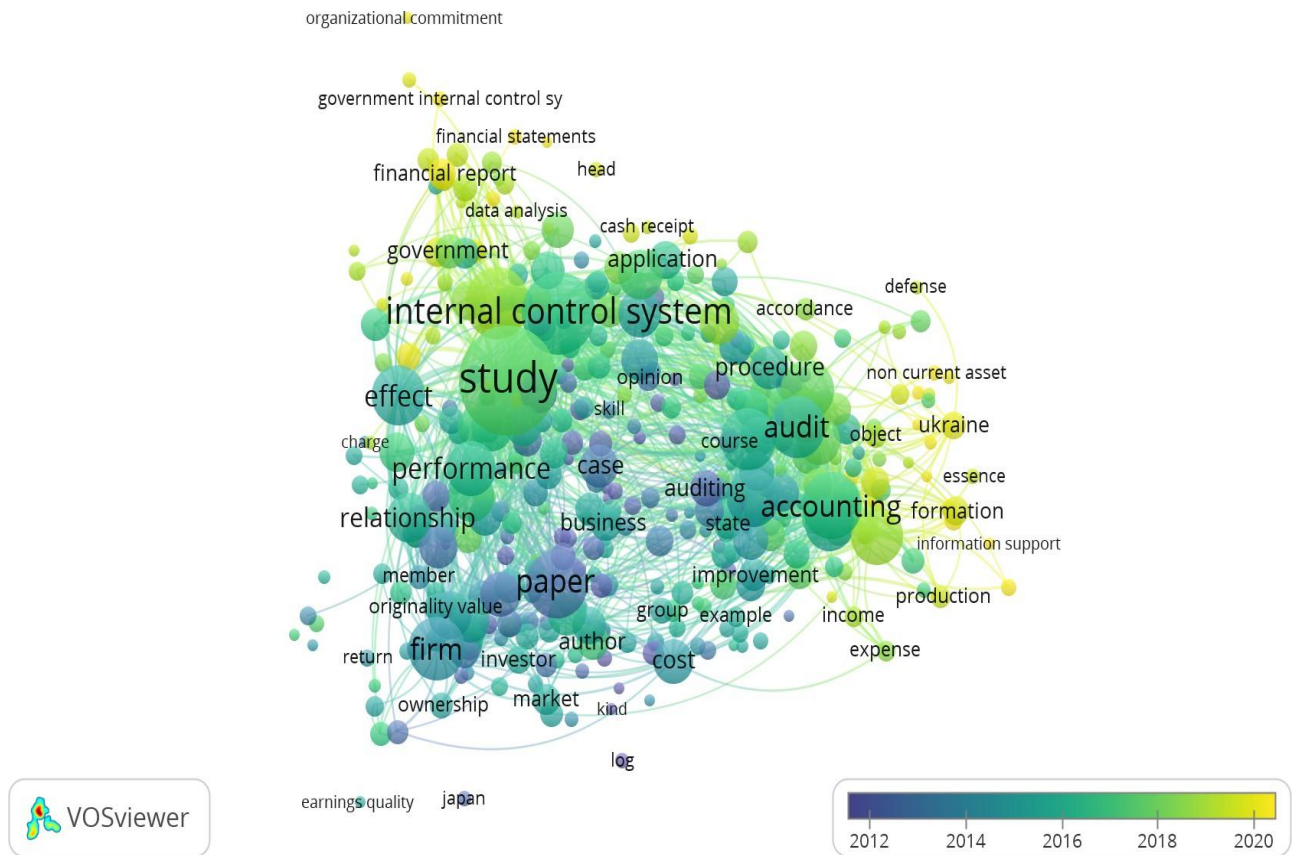


FIGURE 2. Co-occurrence map based on text. Items that do not have link with others are not included in the analysis.

In this Figure 2 Overlay visualization with total of 400 clusters .Association strength method adopted in the software. Weight is given on the basis of occurrence and scores are average publications. The co- occurrence map shows the

TC	Top 20 Journals	TP
241	Accounting and business research	9
135	Accounting horizons	5
865	Accounting organizations and society	14
563	Auditing a journal of practice & theory	13
519	Contemporary accounting research	7
562	Corporate governance an international review	12
112	International journal of accounting and information management	6
585	International journal of accounting information systems	13
288	International journal of auditing	10
102	International journal of disclosure and governance	6
84	Issues in accounting education	10
133	Journal of accounting research	6
117	Journal of applied business research (jabr)	9
125	Journal of applied corporate finance	5
664	Journal of information systems	22
95	journal of management accounting research	5
141	Journal of management and governance	8
1125	Management accounting research	5
701	Managerial auditing journal	52
904	The accounting review	10

The top 20 journals are been listed above in Table 2, Management accounting research journal has received the maximum number of citations. Research scholars can insights to the idea of top 20 journals for the development of study.

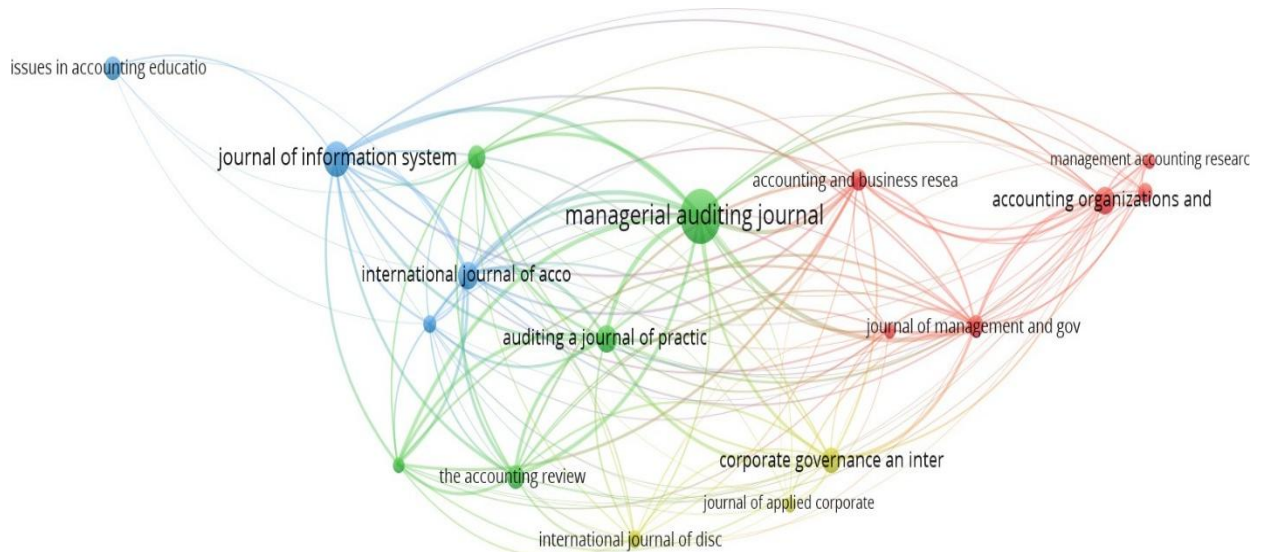


FIGURE 5. Collaborative Research Networks between journals. Items that do not have link with others are not included in the analysis.

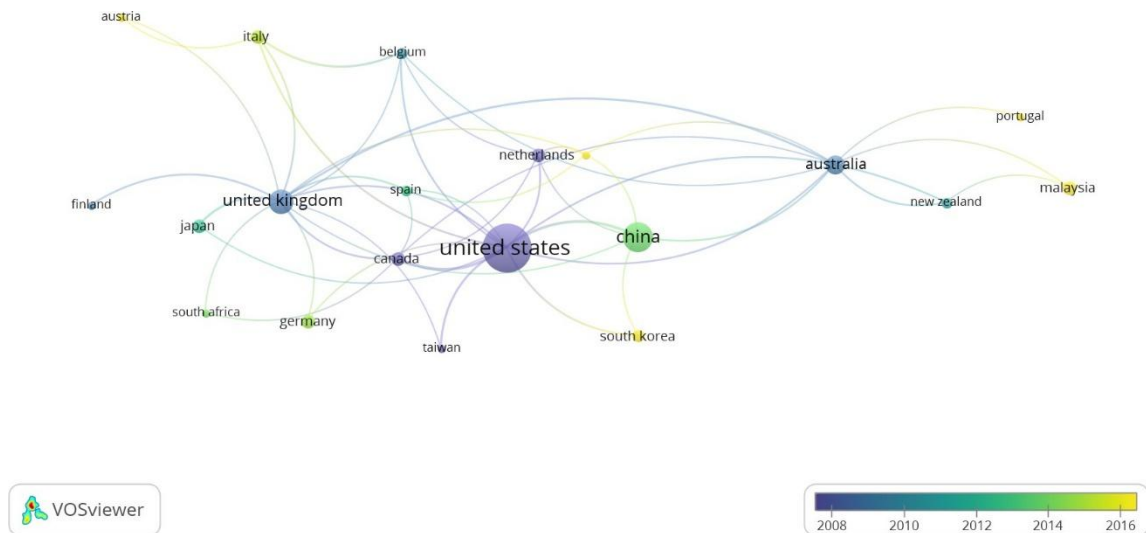


FIGURE 6. Collaborative Research Networks between co-authorship between countries. Items that do not have link with others are not included in the analysis.

5. CONCLUSION

This study is been obtained from Dimensions database to provide a jist of research in the context of internal control system specifically related to sustainable growth. The time period from 1962 till 2022 December is been taken to provide extensive literature in terms of top authors, organization, countries and journals. Co- citation, bibliographic coupling is utilized. The literature on internal control system is mainly found in accounting, auditing journals. The analysis of data states that citations occur within country among authors more in home countries rather than other states. Bibliometric analysis has its own set of limitations and may not be able to provide concrete results. This study has onset its own limitation in regard to research methodology used by researcher. The further development can be done in this study by using another database like scopus. However, this study tries to provide an extensive review of the literature on internal control system through collaboration and techniques of bibliometric analysis.

REFERENCES

- [1]. Al-Bahaidi, & Essam. (2014). the effectiveness of the internal control system under the electronic accounting information systems is an applied study on the banks operating in the Gaza Strip.
- [2]. Castillo-Vergara, M., Alvarez-Marin, A., & Placencio-Hidalgo, D. (2018). A bibliometric analysis of creativity in the field of business economics. *Journal of Business Research*, 85, 1-9.
- [3]. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W.M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- [4]. Ehiedu, V. C., and Ogbeta, M. (2014). An Investigation into the Internal Control System in the Banking Industry (A Study of Some Selected Banks in Asaba, Delta State) *European Journal of Business and Management* Vol.6, No.9, 2014 www.iiste.org
- [5]. Harzing, A. W. (2019). Two new kids on the block: How do Crossref and Dimensions compare with Google Scholar, Microsoft Academic, Scopus and the Web of Science? *Scientometrics*, 120(1), 341- 349.
- [6]. Martin-Martin, A., Thelwall, M., Orduna-Malea, E., Lopez-Cozar, E.D. (2020). Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, and Open Citations'COCI: a multidisciplinary comparison of coverage via citations. Retrieved from <https://arxiv.org/abs/2004.14329> on June 20th 2022.
- [7]. Mawanda, S. P., (2008). Effects of internal control systems on financial performance in an institution of higher learning in Uganda: A case of Uganda Martyrs University, Unpublished thesis, Uganda
- [8]. Matyrs University Michelon, G., Bozzolan, S., & Beretta, S. (2015). Board monitoring and internal control system disclosure in different regulatory environments. *Journal of Applied Accounting Research*, 16(1), 138–164. doi:10.1108/JAAR-03-2012-0018
- [9]. Nyakundi, D. O., Nyamita, M. O., & Tinega, T. M. (2014). Effect of internal control systems on financial performance of small and medium scale business enterprises in kisumu city, kenya. *International Journal of Social Sciences and Entrepreneurship*, 1 (11), 719-734.
- [10]. Olatunji, O. C. (2009). Impact of internal control system in banking sector in Nigeria. *Pakistan Journal of Social Sciences*, 6(4), 181-189.
- [11]. Osama Mohammed Saleh, & Supervisor - Babeker Ibrahim Siddiq(2008). The impact of the application of the rules of corporate governance on the efficiency of the internal control system in the Sudanese banking sector (Doctoral dissertation, Sudan University of Science and Technology).
- [12]. Science and Technology).

- [13]. Reid, K., & Ashelby, T. (2002). The Swansea Internal Quality Audit Processes Quality Assurance in Education
- [14]. Schonfeld R. A new citation database launches today: Digital Science's Dimensions. Scholarly Kitchen [Internet]. 15 Jan 2018 [cited 29 June 2022].
- [15]. Thelwall, M. (2018). Dimensions: A competitor to Scopus and the Web of Science? *Journal of Informetrics*, 12(2), 430-435.
- [16]. Visser M., van Eck N.J. & Waltman, L. (2019). Large-scale comparison of bibliographic data sources: Web of Science, Scopus, Dimensions and Crossref. *Proceedings of 17th International Conference on Scientometrics and Informetrics*,
- [17]. pp. 2358-2369.
- [18]. Visser M., van Eck N.J. & Waltman, L. (2019). Large-scale comparison of bibliographic data sources: Web of Science, Scopus, Dimensions and Crossref. *Proceedings of 17th International Conference on Scientometrics and Informetrics*,
- [19]. pp. 2358-2369.
- [20]. Wallin, J.A. (2005). *Bibliometric Methods: Pitfalls and Possibilities*. *Basic & Clinical Pharmacology & Toxicology*, 97(5), 261–275.
- [21]. Yılmaz, Cihan & öztürk, seyhan. (2019). *Finance and Accounting I Chapter: Bibliometric Analysis of internal control., internal auditing and control self – assessment. pages(13-30).*