

Stock Market Volatility and Mutual Fund Returns: A Bibliometric Analysis of Research Trends (2000–2022)

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Abstract

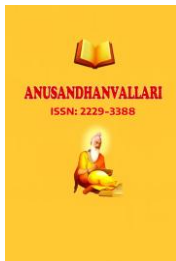
This study examines the research landscape on the relationship between stock market volatility and mutual fund returns through a bibliometric approach. A total of 174 publications indexed in the Scopus database from 2000 to 2022 were analyzed using the Bibliometrix package and its Biblioshiny interface. The study identifies key contributors, influential journals, leading countries, and dominant research themes through descriptive and network analysis techniques. The findings reveal that scholarly interest in this domain remained limited in the early years but experienced significant growth after 2010, indicating increasing academic and practical relevance. The analysis further highlights the intellectual structure and evolving thematic areas within the field, emphasizing emerging research directions and gaps. While the study is limited to the Scopus database, it provides a structured overview of the domain and offers a foundation for future empirical and theoretical investigations. The results are useful for researchers and practitioners by identifying key areas of focus, collaboration opportunities, and evolving trends in mutual fund performance and market volatility research. This study contributes by consolidating dispersed literature and presenting a comprehensive overview of the development and direction of research in this field.

Keywords: Emerging trends, Fund Performance, Bibliometric analysis, VOS Viewer, Portfolio Selection, Stock Market Volatility

1.Introduction:

Mutual funds and the financial sector play a crucial role in economic development and progress, and this fact cannot be argued. A sizable number of investors and families use mutual funds. Mutual funds combine money from consumers and distribute it among the financial market investors as a financial middleman and institutional investor. On the other side, financial markets support effective capital accumulation and allocation by assisting in the distribution of cash from households to borrowers. Market volatility, however, primarily prevents the financial markets from operating properly and smoothly. Volatility in the financial markets emphasizes upon risk and ambiguity in the financial securities' prices. The risk of financial market could impede the efficient operation of financial system and the overall economic system.

Mutual funds as institutional investors utilize the financial market crucialities such as liquidity, knowledge, and diversification etc. in reducing risk (Merton & Bodie, 1995). By avoiding significant market volatility, institutional investors may be able to stabilize the equilibrium of the financial markets. According to Strickland and Dennis (2002), there is a distinction in the trading styles of institutional and individual that may be seen in the way that



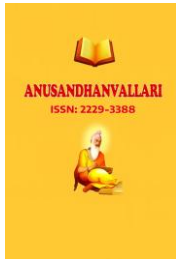
information is gathered and processed. In addition, institutional investors retain less price volatile securities during market declines than do individual investors (Faugere & Shawky, 2003).

According to theoretical foundations, sophisticated institutional investors are less likely to be affected by stock market volatility and respond to it rationally (e.g., Daigler and Wiley (1999); Aggarwal and Rao (1990); Saar, Kaniel, and Titman (2008)). They are referred to as "smart investors" because they balance out the investments of each impulsive investor and lessen market noise (Timotity & Ormos, 2016). In 1953, Friedman claimed that prudent investors maintain asset values. Institutional investors, according to Fama, can moderate the dramatic volatility in asset values (1965). Furthermore, savvy mutual fund investors typically timing the market correctly (Cao, Chang, & Wang, 2008). Other studies, however, present conflicting information. Institutional investors, for example, can find riskier and more volatile securities more tempting since they have a higher chance of outperforming typical market securities.

Sias (1996) asserts that institutional investors increase trading frequencies during market volatility and engage in momentum trading. This also applies to mutual funds because they function as institutional investors and have a history of using herding and positive feedback in their trading, which can amplify volatility and speed up price changes. It is argued that market stability should instead result from institutional investors' prudent decisions (Bohl, Brzeszczyski, & Wilfling, 2009). Market volatility and mutual funds have a favorable correlation and it has been found by prior studies (Harlow, Brown, and Starks, 1996; Sias, 1996; Strickland and Dennis, 2002). Others, however, contend that there is negative correlation between institutional trading and market volatility (Albin & Grier, 1973; Reilly, 1977; Wachowicz Jr & Reilly, 1979). This introduction demonstrates the difficulties of drawing a firm conclusion from the current theoretical and empirical debate because investigations often produce unclear findings. As a result, the results of these investigations have been ambiguous and conflicting. Regardless of the significance of mutual funds for stock trading, the literature on market volatility and mutual fund flows has received little attention. Additionally, there is sufficient data to establish the association between volatility, market volume, and equity market returns. Additionally, scholars' interest in deep areas of market volatility and its impact on mutual funds has increased recently. However, there is little and emerging macro analytic literature.

We conduct research through bibliometric analysis to give a critical overview of knowledge maps as they relate to published scientific papers in light of the just mentioned problem. Utilizing bibliometrics to assess the qualitative and quantitative shifts in research activity across time is a wise strategy (Xie et al., 2020). Literature methodological techniques and literary databases are both employed. It is now commonly utilized to clarify certain research-related issues. Publications with a high number of citations are consistently reviewed by many peers and subject-area experts. Many academic studies have evaluated the impact of articles in pertinent fields of study in a manner similar to this. Because of this, bibliometric research has evolved in many academic disciplines. Finding the often-referenced publications that made a significant contribution to the research studies is useful. The purpose of the current study is to look into the variables influencing the research roadmap cluster's cluster on the association between stock market volatility and mutual funds. Bibliometric analysis has recently been used in studies to summaries a range of academically connected topics.

This study's goal is to make the research roadmap better so that it will be helpful for future research projects. The clustered research road map would make it simpler for new researchers to develop fresh research ideas. This paper's goal is to provide a summary of scholarly studies on the connections between stock market volatility and mutual funds. As previously stated, the current study focuses on the important trends and research topics and finding the correlation between share market volatility and mutual funds, emphasizing the necessity for additional research for future research projects.



We have made our best efforts in the current study to integrate bibliographic analysis with the linked systematic literature on the relationships between share market volatility and mutual funds, which allows us to investigate the following research questions:

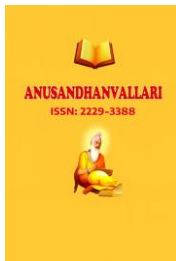
2. Research Significance Questions

What is the publication and citation trend annually?	It would aid in determining the annual number of articles and citations, which would also aid in forecasting the future trend.
What journal made the most contributions and was most frequently cited?	It would assist researchers in locating specific journals that contributed the most, as well as journals that are the most cited. This will aid the researchers' future publications.
Which author and country published the most research papers?	It will aid in identifying the research efforts of various authors and countries. It will assist the researcher in identifying the most influential academicians.
What are the most important publishing affiliations?	It would aid researchers in selecting appropriate forums and academic institutions to publish their scientific work. It may have an impact on future citations of their paper.
Which countries dominate the publication?	It would help researchers and practitioners understand which countries are most concerned about the subject. This will allow them to add value their research findings from that country to future publications.
Which countries contributed the most in terms of research production and collaborative efforts?	It will assist in determining the nation with the highest level of research productivity as well as in recognizing international cooperation. This will result in scholars conducting intra-country research.
What essential terms are used?	It will be a simple method of searching for future researchers.
What are the most important research topics?	It will aid in the identification of various themes prevalent in the area, thereby providing future scope.

Table 1: Research Questions

3. Objectives

This review's objective is to provide an overview of the body of research on the connection between volatility and mutual fund returns. The main goal is accomplished and broken down into three parts. First, the most important aspects of the literature on the connection between mf returns and volatility are examined. An examination of published materials, authors, affiliations, and sources shows a summary of the most important facets of literature. The goal of this review is to provide an overview of the literature that is currently available on the most significant sources, institutions, and paperwork with the most references are used in a qualitative statistic to study the key



aspects of literary works as a glimpse of the literature landscape globally and annual scientific throughput over the specified period of sample.

Following that, the primary areas of research on the relationship between volatility and MF performance are discussed. The second purpose is specifically advanced by the use of textboxes, co-citation graphs, conceptual structure maps, thematic maps, co-occurrence networks, and country collaboration maps. Finally, this study makes an effort to resolve the future scope and lays the groundwork for more research utilizing the descriptive, theoretical, logical, and social structural evaluations.

4. Research Methodology

A subfield of information science and library science called "bibliometrics" measures the features of research across many fields (Broadus, 1987). The analysis of research papers, books, and other academic documents statistically is a focus of the information and library sciences, or scientometrics (Nicola, 2009). As a result of the Scopus database's substantially wider range of papers and citations (Boyack et al., 2018), it is used in the current bibliometric analysis (Okoli, 2015). R is used to depict the various types of study-related keyword phrases for the bibliometric analysis.

4.1 Search Strategy and Selection Criteria

We have used common keywords to exhaustively cover the entire corpus of relevant works in order to account for all pertinent studies and minimize the omission of off-topic documents. To encircle the relevant literature, keywords such as "Stock Market Volatility" or "Share Market Changes" AND "Bond Mutual Funds" or "Debt Funds" or "Bond Funds" are preferred. 786 documents total from all Scopus fields up to March 2022 were found during the initial search. The study's time frame spans the years 2000 to 2022. Furthermore, the study's inclusion criteria were also stated as:

a) Scopus research works on topics like "Business, Accounting and Management" and "Finance, Economics, and Econometrics" were considered.

b) For the analysis, research materials in English language were preferable.

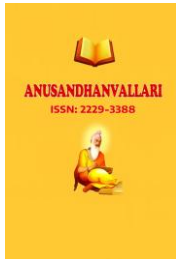
For the bibliometric analysis, 243 documents from 22 years between 2000 and 2022 were used after adhering to the inclusion criteria. Finally, after manual screening, just 174 documents were kept in mind for the investigation.

In bibliometric analysis, scientific communication is quantified to create a basis for the study area with linkages and present themes, such as in the categories of clusters and systems (Small, 2006). Contextually, a careful evaluation of the various aspects of the scientific areas involved in the link between market volatility and relative mutual fund returns can result from a thorough analysis of research breakthroughs. (Biancone and others, 2020).

When employed in the study, Biblioshiny, a web-based and open-source interactive interface for bibliometrics for non-coders, connecting to R packages and offers factual quantitative approach insight into debt funds (Aria & Cuccurullo, 2017).

5. Results and Discussion

Descriptive and evaluative approaches to data processing and interpretation are two branches that separate the research on bond funds. These sections fully describe all key research contributions and show an enhanced assessment visualization (Tijssen, 2004).



1) A Global Overview:

This bibliometric analysis describes the results in Table 1 and provides a glimpse of the literary work. Out of total of 174 publications, including 162 articles, 7 review papers, and 5 conference papers, were published between 2000 and 2022.

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2000:2022
Sources (Journals, Books, etc.)	107
Documents	174
Annual Growth Rate %	11.03
Document Average Age	6.86
Average citations per doc	11.11
References	8190
DOCUMENT CONTENTS	
Keywords Plus (ID)	146
Author's Keywords (DE)	510
AUTHORS	
Authors	390
Authors of single-authored docs	24
AUTHORS COLLABORATION	
Single-authored docs	24
Co-Authors per Doc	2.53
International co-authorships %	28.16
DOCUMENT TYPES	
article	162
conference paper	5
review	7

Table 2: Overview

2) Annual Scientific Production

Figures 1 and 2 show the relationship between publications and citations over time. On average, there is an upward tendency between 2000 and 2022, especially in 2018 and 2022, the years with the most publications per year with over 15 articles each. When it comes to average citations each year, the trend is not upward, but rather downward, falling from 4 publications annually in 2002 to an average of 2 papers in 2021.

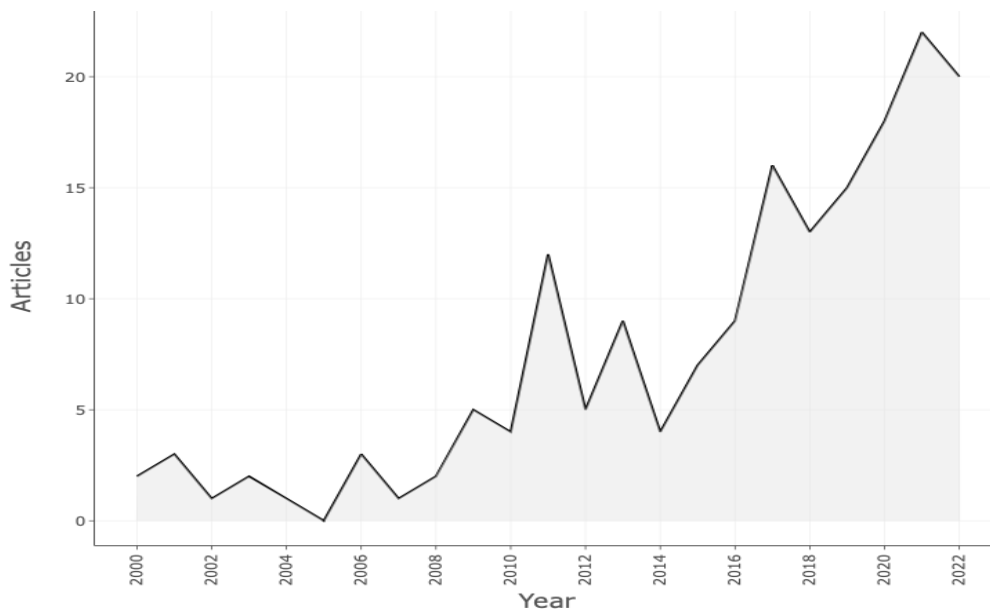


Figure 1: Annual scientific production

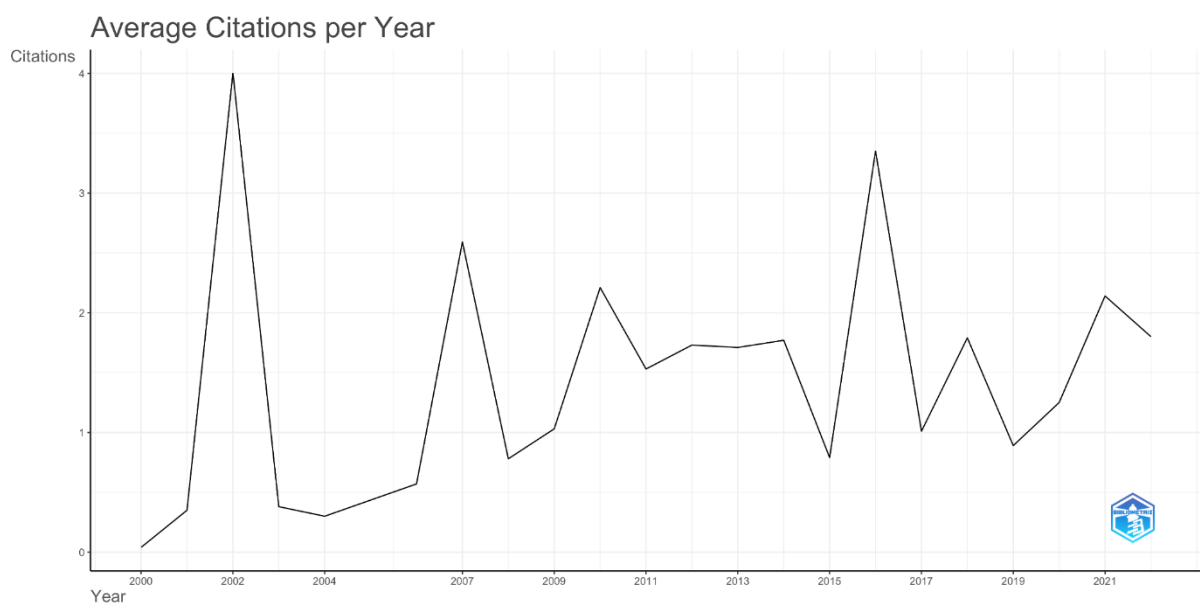


Figure 2: Average citation per year

The Sankey diagram is employed in this study to examine the thematic progression of relations between stock market volatility and mutual funds returns in Figure 3. Sankey plots are used to show a three-field plot where the size of the part is negatively proportional to the amount of the node (Riehmman et al., 2005). The keywords are indexed below the Sankey Plot on the left side, the authors are depicted in the middle row, and the countries that are chosen for analysis are shown on the right-hand side. The analysis shows that fund performance, liquidity, and volatility are the main keywords with the most contribution coming from Thailand, China, Australia. Author Wattanatorn from Thailand contributes 4 papers about mutual fund performance and market timings.

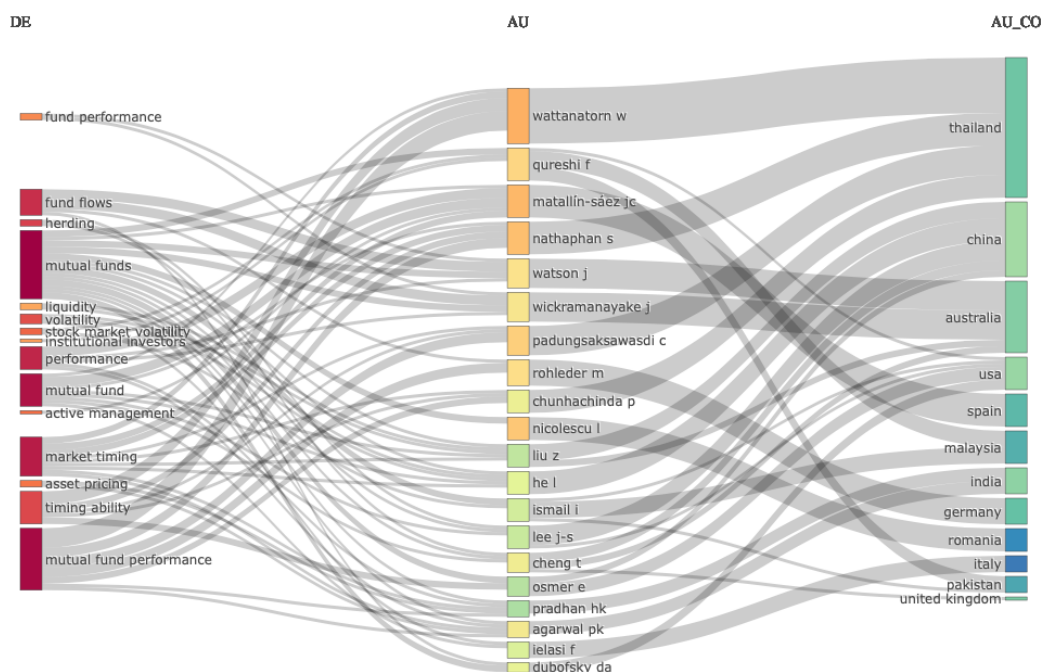


Figure 3: Keywords, Authors and Author’s Country containing Three Field Plot

3) Sources: Most relevant and cited Journals

The number of times of citations a research document obtains and the studies it cites are two key indications of a research document's quality (Duque-Oliva-et-al. in 2006; and Rey-Mart-et-al. in 2016). Table 3 shows that, of all the Scopus documents selected, Journal of Banking & Finance is the most pertinent source, with 14 articles, followed by Pacific Basin Finance Journal. Journal of Finance, on the other hand, is the most cited journal, with 698 citations, and is accompanied by Journal of Finance and Economics.

Most Relevant Journal		Most Cited Journal	
Sources	Articles	Sources	Articles
JOURNAL OF FINANCE AND BANKING	14	JOURNAL OF FINANCE	698
PACIFIC BASIN FINANCE JOURNAL	7	JOURNAL OF FINANCIAL ECONOMICS	542
EMERGING MARKETS REVIEW	4	THE JOURNAL OF FINANCE	306
INTERNATIONAL REVIEW OF ECONOMICS AND FINANCE	4	REVIEW OF FINANCIAL STUDIES	270
JOURNAL OF EMPIRICAL FINANCE	4	J FINANC ECON	244
JOURNAL OF INTERNATIONAL FINANCIAL MARKETS, INSTITUTIONS AND MONEY	4	J FINANCE	237
REVIEW OF QUANTITATIVE FINANCE AND ACCOUNTING	4	JOURNAL OF BUSINESS	159
APPLIED ECONOMICS	3	JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS	158
COGENT ECONOMICS AND FINANCE	3	J FINANC	151
ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA	3	REV FINANC STUD	136

Table 3: Most relevant and cited Journals

Bradford's law and source impact are used to analyze the impact of the most relevant source. Figure 4 depicts the top 10 sources based on H index which means number of articles published in a journal (H) each of which has been cited in other journal at least h times. Journal of Banking and Finance has the highest H index of 9 among top 10 sources. In comparison, Table 4 The top 10 research journals are ranked using the Bradford law categorization system, which divides academic journals into three zones, Zone 1 containing core journals that publish works on stock market volatility and mutual fund return relation and also termed as a nuclear zone since it is making the most contribution to research. It was concluded that out of 107 research journals, 13 journals fall under Zone 1, 37 journals fall under Zone 2, and 57 journals fall under Zone 3. Both represent that Journal of Banking and Finance is the most relevant source followed by Pacific Basin Finance Journal.

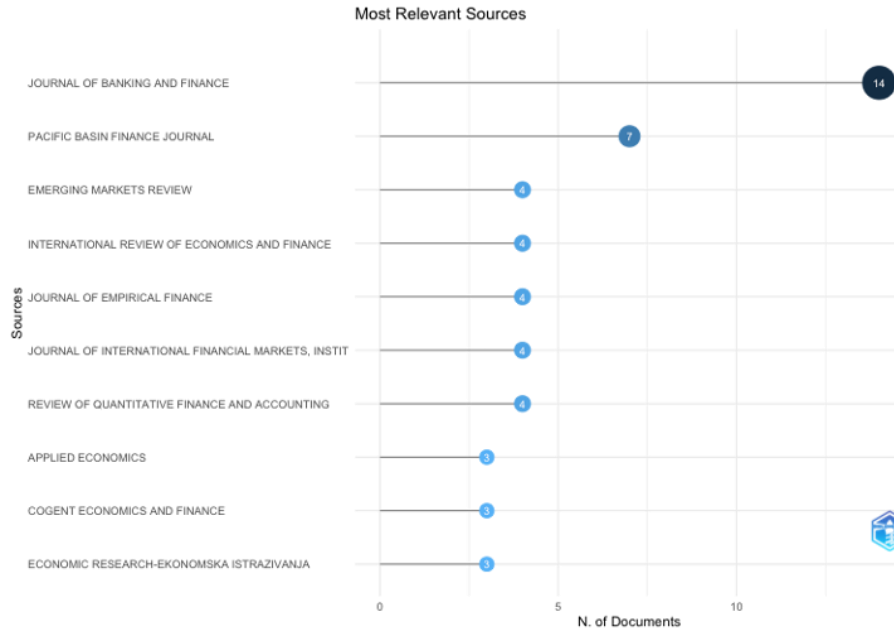


Figure 4: Source Local Impact

Source	Rank	Freq	cumFreq	Zone
JOURNAL OF BANKING AND FINANCE	1	14	14	Zone 1
PACIFIC BASIN FINANCE JOURNAL	2	7	21	Zone 1
EMERGING MARKETS REVIEW	3	4	25	Zone 1
INTERNATIONAL REVIEW OF ECONOMICS AND FINANCE	4	4	29	Zone 1
JOURNAL OF EMPIRICAL FINANCE	5	4	33	Zone 1
JOURNAL OF INTERNATIONAL FINANCIAL MARKETS, INSTITUTIONS AND MONEY	6	4	37	Zone 1
REVIEW OF QUANTITATIVE FINANCE AND ACCOUNTING	7	4	41	Zone 1
APPLIED ECONOMICS	8	3	44	Zone 1
COGENT ECONOMICS AND FINANCE	9	3	47	Zone 1
ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA	10	3	50	Zone 1

Table 4: Source Clustering through Bradford's Law

4) Data Analysis: Author’s, Affiliations and Countries

In this section the study provides data regarding authors, academic affiliations, and countries contributing towards research inputs significantly.

Figure 5 depicts the top 10 authors ranked on the basis of their total publications and h-index. Wattanatorn W is on the top of the list with 7 publications, and 4 h-index followed by Matallin-Saex Jc and Nathaphan S both having 4 publications and h- Index of 3. Table 5 represents author productivity through Lotka’s Law indicating that Wattanatorn W core author Published 7 articles whereas 355 occasional authors have published single documents only.

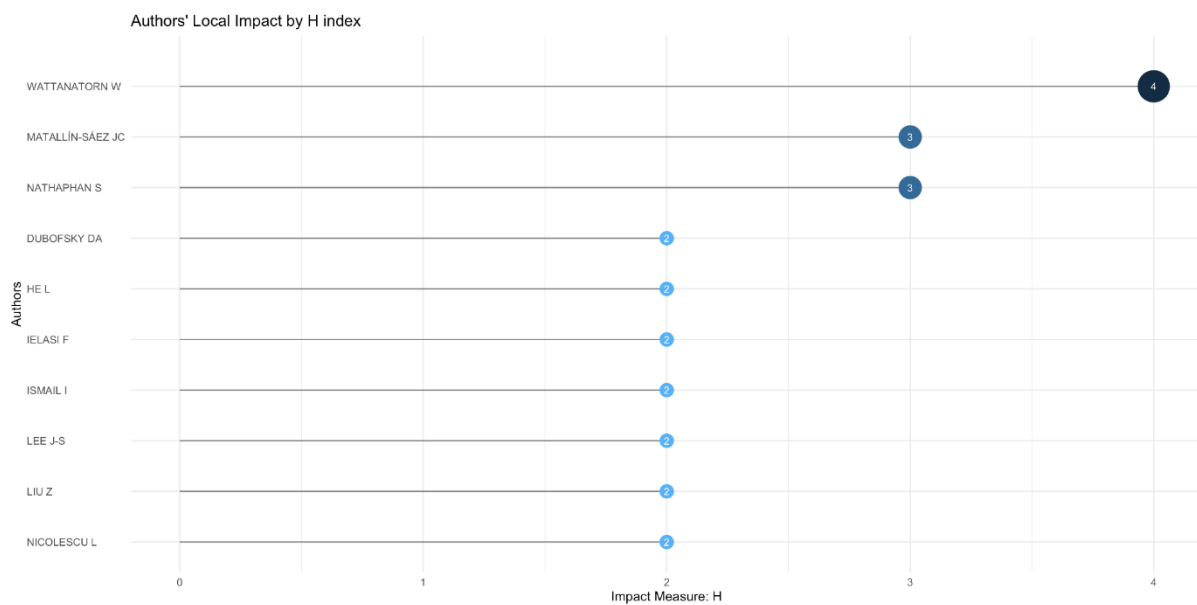


Figure 5: Author’s local impact by H index

Documents written	N. of Authors	Proportion of Authors
1	355	0.91
2	26	0.067
3	6	0.015
4	2	0.005
7	1	0.003

Table 5: Lotka’s Law in Annual Productivity

4.1) Corresponding Author’s Country

Table 6 breaks down statistical data into single-authored publications (SCP) and multi-authored publications (MCP) to present specific information about the top 10 countries. With 26 articles, 15 of which are single-authored and 11 of which are multi-authored, USA is rated top. China and India are placed at second and third place

respectively. UK and Hong Kong are two countries having MCP more than SCP indicating inter-country collaborations is much stronger than intra -country collaborations in these countries.

Country	Articles	SCP	MCP	Freq	MCP_Ratio
	38	32	6	0.218	0.158
USA	26	15	11	0.149	0.423
CHINA	24	16	8	0.138	0.333
INDIA	12	11	1	0.069	0.083
UNITED KINGDOM	9	3	6	0.052	0.667
SPAIN	8	7	1	0.046	0.125
AUSTRALIA	7	5	2	0.04	0.286
GERMANY	7	5	2	0.04	0.286
THAILAND	6	6	0	0.034	0
HONG KONG	5	2	3	0.029	0.6

Table 6: Countries' List (Highly Corresponding Author)

The top performing organizations on the basis of quantity of papers contributed are summarized in Table 7. The most prolific institution is Thammasat University of Bangkok with 14 articles followed by Hunan Normal University of China, Universitat Jaume I of Spain and Germany's university of Augsburg each with 6 articles. On the Contrary, Table 8 shows the most prolific country on the basis of total citations is the USA (400 citations), followed by the UK (254 citations) and China (235 citations). Most interesting fact is that top contributed affiliation is from Thailand which is not in the top cited list of countries.

4.2) Top Affiliations and cited countries

Affiliation	Articles
THAMMASAT UNIVERSITY	14
HUNAN NORMAL UNIVERSITY	6
UNIVERSITAT JAUME I	6
UNIVERSITY OF AUGSBURG	6
ZHEJIANG UNIVERSITY	5
FUDAN UNIVERSITY	4
INDIAN INSTITUTE OF MANAGEMENT	4
MONASH UNIVERSITY	4
NANJING UNIVERSITY	4
NORTHERN ILLINOIS UNIVERSITY	4

Table 7: Top Affiliations

In this section, the lists of countries, having the maximum number of citations are presented. Table 8 shows that the United States has the maximum number of citations i.e., 400 TC followed by UK with a count of 254 citations and then followed by China (102) and Germany (132). However, the average article citations are maximum in UK with 28.22 average followed by Netherland (23.5) which has second lowest total publications.

Country	TC	Average Article Citations
USA	400	15.38
UNITED KINGDOM	254	28.22
CHINA	235	9.79
GERMANY	132	18.86
SPAIN	81	10.13
ITALY	68	17
AUSTRALIA	59	8.43
CANADA	50	16.67
NETHERLAND	47	23.5
MALAYSIA	44	8.8

Table 8: Top Cited Countries

Figure 6 illustrates collaboration network maps between nations using bibliometric analysis. Dark blue indicates high productivity, while light blue indicates poor production countries. The thickness of the red link indicates how frequently countries collaborate; the thicker the linkages between countries, the more frequently they collaborate. The top two countries for producing research papers are China and the United States, with 75 papers each. India comes in third with 37 articles, and Pakistan comes in last with 11 papers. USA has most frequent Canada, UK and Australia whereas China is more inclined towards USA and Australia from a research point of view. India has research collaboration with South Africa. While analyzing country's production over Time in fig 7, study finds that The USA and Australia produced the documents continuously starting from 2000 only whereas China and India pace up the publishing after 2009 at a rapid rate. Australia is consistent in production but speed is slow comparatively and ended up just 32 articles in 2021.

Country Collaboration Map



Fig 6: Country's collaboration map

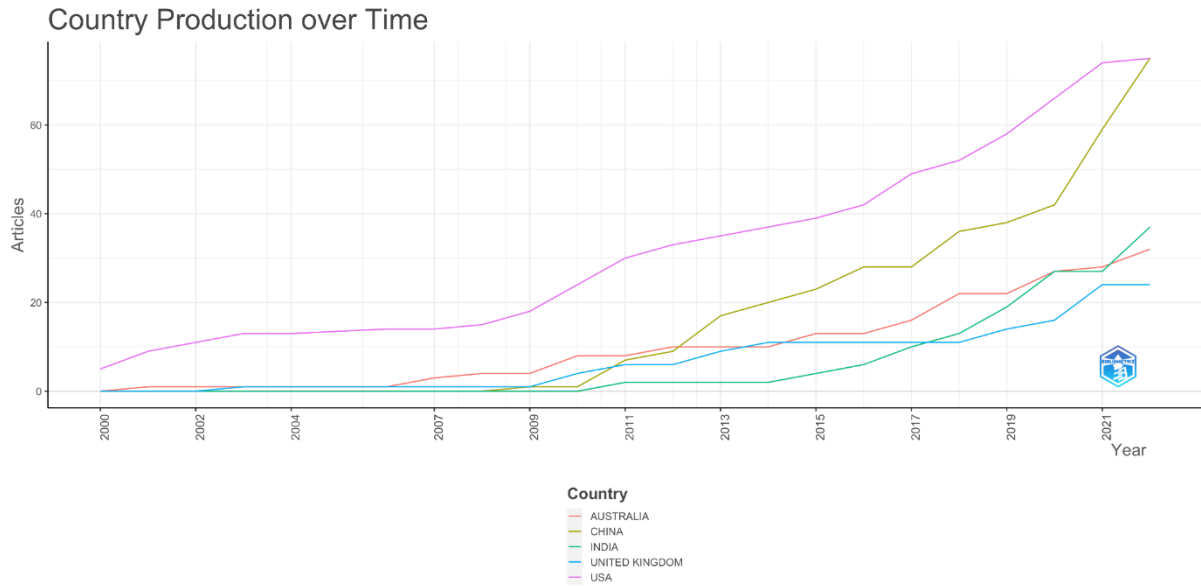


Fig 7: country production over time

5) Keyword Analysis

The word cloud in Fig. 8 features the authors' keywords ringed. The loess analysis's trend through time is depicted by the inclusion of the authors' frequently used keywords in this section (Secinaro & Calandra, 2021). The relationships between the writers' main keywords are established by this, and these keywords are dispersed around the most important keyword, "Stock Market," with a frequency of 13. Other vital keywords are Investments, capital flow, financial markets, mutual funds (4 frequencies).



Figure 8: Word Cloud

6) Thematic Map

Identification of the field's primary themes is aided by a co-word analysis of an author's keywords. A strategic thematic map was created using the method Cobo et al. utilised (2011). Based on the degree of importance (centrality) and degree of development (density) along two axes, Figure 9 is divided into four quadrants (clusters of keywords). According to Cobo et al. (2011), centrality is a gauge of a theme's and innovations' significance across the board of the entire study area. The degree of a theme's development is determined by its density. The software selects the cluster labels in line with the dominating author keywords, and the size of the cluster indicates the number of keyword occurrences.

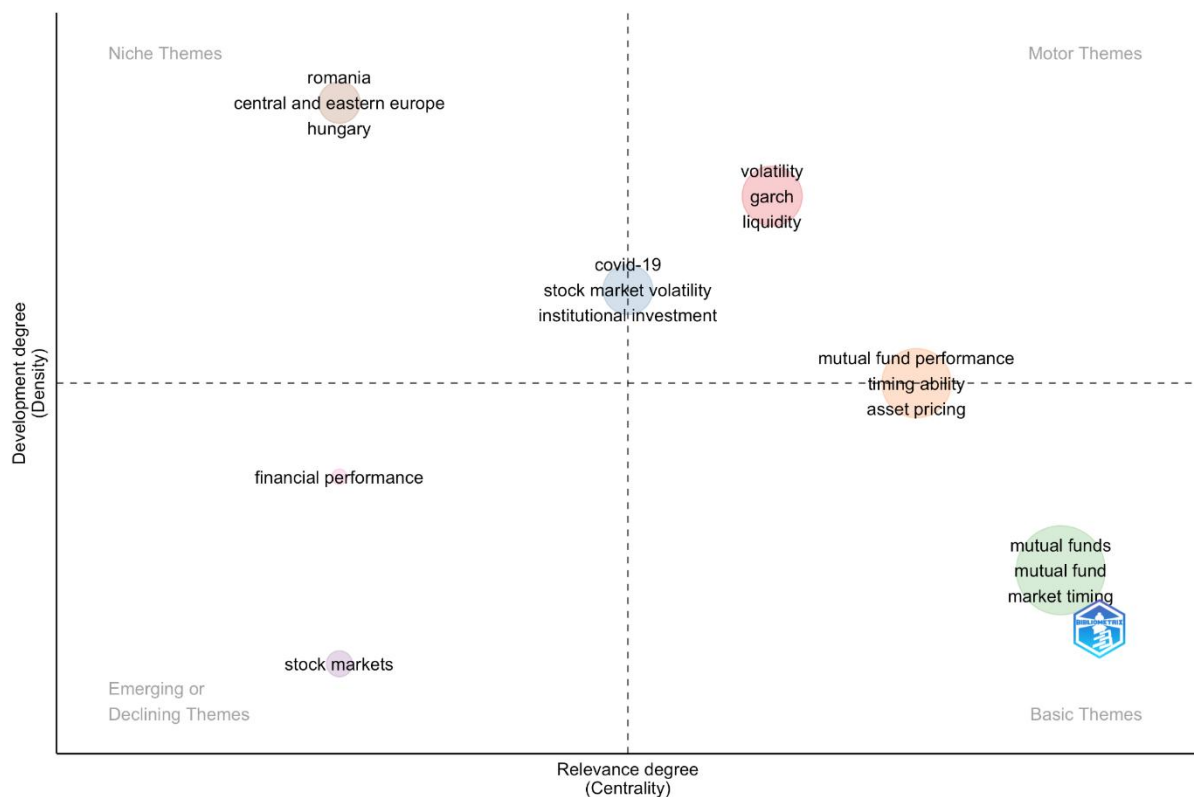
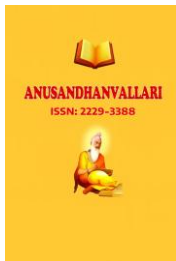


Figure 9: Thematic Map

The motor-themes, which are located in the top-right quadrant, feature well-structured and important research fields like "Volatility," "Garch," "Liquidity," and "Mutual Fund Performance." Kosowski R (2011) average mutual funds have negative risk adjusted return during expansion other than recession. Białkowski J (2013) discussed the Ramadan anomaly related to mutual funds in Turkey. Wagner N (2013) talked about new family of equity shares and mutual fund performance. Low risk exposure of Islamic mutual funds as compare to conventional ones in Pakistan is discussed by Naveed F (2020).

Emerging or disappearing themes located in the lower-left quadrant signify that they are still in the early stages of development and are only of minor significance. These themes, such as "stock markets" and "financial performance," are primarily showing either emerging or vanishing themes. There are just 3 studies that deal with stock markets. The influence of COVID 19 on the Indian stock market was discussed by Gupta H (2022). Oh.NY(2007) in Korea examines the connection between mutual fund flow and share market results. In terms of the 175 studies that are available, only 2 studies on financial performance cluster it.



Basic themes included in the lower-right quadrant include transversal and fundamental concepts like "mutual funds" and "market timing" since they are important for the study field, but less developed. Although they are nevertheless important in the area and are rapidly developing, these are not well developed. Research on mutual funds and various economic dynamics is becoming more and more popular. Using Multi-scale Wavelet Granger Causality Analysis, (Ambutipudi. Vet al., 2022) illustrates the impact of Economic Policy Uncertainty Versus Sector Volatility in India.

Very specialized/niche themes, which are located in the upper-left quadrant, show strong internal linkages with weak external ties, although they are not of central relevance for areas like "institutional investment" and "Covid-19." When it comes to the out-flow and in-flows bonds owned by funds, these thematic demonstrate the risk associated with the bond as a trading asset.

Discussion

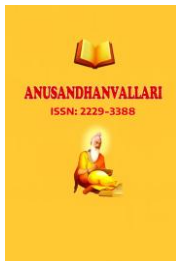
This paper offers a thorough assessment of the research on the relationship between stock market volatility and mutual funds. Fame in the financial markets is an issue of great relevance and has grown exponentially over many years. The academic literature is still in its infancy, nevertheless. This study uses descriptive and evaluative bibliometric methodologies to offer light on the overall overview of the body of academic literature that is currently available. The descriptive analysis shows the scholarly contribution as a whole to be lacking. It's interesting to note that the statistics show significant growth after 2015, especially between 2018 and 2021. The study further reveals that Journal of Finance is the most cited source along with 698 citations. The most well-known papers, including "A Rational Theory of Mutual Funds' Attention Allocation" (Kacperczyk et al., 2016) and "Human Capital Efficiency and Equity Funds' Performance during the COVID-19 Pandemic" (Yarovaya et al., 2021), were left off of the top five works in Scopus that had the most citations. The "Journal of Banking and Finance" and the "Pacific Basin Finance Journal" are without a doubt the top publications on the connection between bond funds and stock market volatility, and these journals continue to serve as the main starting points for subsequent study. The results show that authors who have contributed to the literature have an average h-index of four.

The evaluation analysis's word cloud, collaborative network, and theme map demonstrate how much research has been done in the fields of bond funds and stock market volatility. The creation of good investment plans, which will help in risk management at both the macro and micro levels, will make it easier to build a strong capitalist system for various financial operations.

Conclusion

In the realm of finance, stock market volatility and mutual funds have both attracted a lot of attention, but their relationship has not yet progressed effectively. This study seeks to summarize the existing state and anticipated developments in the literature on the correlation between market volatility and mutual funds. Results from annual scientific production show that since 2016, the field has gained popularity among academicians. From 2016 to the end of 2022, trends in scientific production increased as a result of this.

Although this study supports utilizing Scopus as a primary resource, there is need for additional research using databases like Google Scholar and WoS in the future. The absence of notes and book chapters from the study results in the exclusion of a sizeable portion of the body of literature. The study's bibliometric features will offer insights into the changes in the area through time and teach upcoming scholars on themes and issues for their

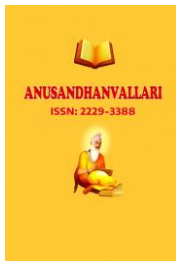


future work. In light of this, the investor sentiment study is still important, and additional theoretical and empirical investigation in this field will promote progress.

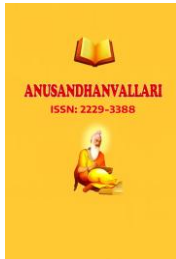
This opens the door for the transition from a domain-specific strategy to a multidisciplinary one. As a result, this research intends to create a framework so that academics and professionals can understand the current position of the area. Additionally, they can look at trends in publications in terms of countries, sources, citations, and authorship, as well as high impact articles, well-known authors, and theme maps, by using bibliometric analysis to evaluate the research opportunities. This study's significant insights into current trends can aid investors and policy makers in deciding their investment portfolio, hedging strategies and diversifications of financial assets throughout the globe. Nevertheless, the recent bibliometric and systematic analysis gives a comprehensive view of existing research. Furthermore, we want to nudge scholars to widen their fields of inquiry and make recommendations for investors and policy makers that would benefit from their pioneering research. Firstly, different financial market assets and key sectors react to changes in the price of shares differently. In order to add to the economic literature, we therefore urge scholars to look into differentiated sector specific research. Secondly, meta-analysis would be an interesting method of conducting research which aids in synthesizing present findings and improves the caliber of study output by including moderators' analysis over numerous investigations. We anticipate that future studies will contribute in this area due to the growing study attention being paid to stock.

References:

- [1] Aggarwal, R., & Rao, R. P. (1990). Institutional ownership and distribution of equity returns. *Financial Review*, 25(2), 211-229.
- [2] Aggarwal, R., Rao, R. P., & Hiraki, T. (1990). Regularities in Tokyo stock exchange security returns: P/E, size, and seasonal influences. *Journal of Financial Research*, 13(3), 249-263.
- [3] Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of informetrics*, 11(4), 959-975.
- [4] BM, L., Chakraborty, S., Kumar Ghosh, B., & Shenoy U, R. (2021). Overview of bond mutual funds: A systematic and bibliometric review. *Cogent Business & Management*, 8(1), 1979386.
- [5] Biancone, P. P., Saiti, B., Petricean, D., & Chmet, F. (2020). The bibliometric analysis of Islamic banking and finance. *Journal of Islamic Accounting and Business Research*, 11(9), 2069-2086.
- [6] Białkowski, J., Bohl, M. T., Kaufmann, P., & Wisniewski, T. P. (2013). Do mutual fund managers exploit the Ramadan anomaly? Evidence from Turkey. *Emerging Markets Review*, 15, 211-232.
- [7] Bohl, M. T., Brzeszczyński, J., & Wilfling, B. (2009). Institutional investors and stock returns volatility: Empirical evidence from a natural experiment. *Journal of Financial Stability*, 5(2), 170-182.
- [8] Boyack, K. W., van Eck, N. J., Colavizza, G., & Waltman, L. (2018). Characterizing in-text citations in scientific articles: A large-scale analysis. *Journal of Informetrics*, 12(1), 59-73.
- [9] Broadus, R. N. (1987). Toward a definition of "bibliometrics". *Scientometrics*, 12, 373-379.
- [10] Brown, K. C., Harlow, W. V., & Starks, L. T. (1996). Of tournaments and temptations: An analysis of managerial incentives in the mutual fund industry. *The Journal of Finance*, 51(1), 85-110.
- [11] Cao, C., Chang, E. C., & Wang, Y. (2008). An empirical analysis of the dynamic relationship between mutual fund flow and market return volatility. *Journal of Banking & Finance*, 32(10), 2111-2123



- [12] Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for information Science and Technology*, 62(7), 1382-1402.
- [13] Daigler, R. T., & Wiley, M. K. (1999). The impact of trader type on the futures volatility-volume relation. *The Journal of Finance*, 54(6), 2297-2316.
- [14] Dennis, P. J., & Strickland, D. (2002). Who blinks in volatile markets, individuals or institutions?. *The Journal of Finance*, 57(5), 1923-1949.
- [15] Duque Oliva, E. J., Cervera Taulet, A., & Rodríguez Romero, C. (2006). A bibliometric analysis of models measuring the concept of perceived quality in providing internet service. *Innovar*, 16(28), 223-243.
- [16] Fama, E. F. (1965). The behavior of stock-market prices. *The journal of Business*, 38(1), 34-105.
- [17] Faugère, C., & Shawky, H. A. (2003). Volatility and institutional investors holdings during a declining market: a study of NASDAQ during the Year 2000. *Center for Institutional Investment Management University at Albany*.
- [18] Friedman, M. (1953). Choice, chance, and the personal distribution of income. *Journal of Political Economy*, 61(4), 277-290.
- [19] Grier, P. C., & Albin, P. S. (1973). Nonrandom price changes in association with trading in large blocks. *The Journal of Business*, 46(3), 425-433.
- [20] Kacperczyk, M., Van Nieuwerburgh, S., & Veldkamp, L. (2016). A rational theory of mutual funds' attention allocation. *Econometrica*, 84(2), 571-626.
- [21] Kaniel, R., Saar, G., & Titman, S. (2008). Individual investor trading and stock returns. *The Journal of finance*, 63(1), 273-310.
- [22] Merton, R. C., & Bodie, Z. (1995). A conceptual framework for analyzing the financial system. *The global financial system: A functional perspective*, 3-31.
- [23] Naveed, F., Khawaja, I., & Maroof, L. (2020). Are Islamic mutual funds exposed to lower risk compared to their conventional counterparts? Empirical evidence from Pakistan. *ISRA International Journal of Islamic Finance*, 12(1), 69-87.
- [24] Oh, N. Y., & Parwada, J. T. (2007). Relations between mutual fund flows and stock market returns in Korea. *Journal of International Financial Markets, Institutions and Money*, 17(2), 140-151.
- [25] Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37.
- [26] O'Reilly, C. A., & Roberts, K. H. (1977). Task group structure, communication, and effectiveness in three organizations. *Journal of Applied Psychology*, 62(6), 674.
- [27] Ormos, M., & Timotity, D. (2016). Unravelling the asymmetric volatility puzzle: A novel explanation of volatility through anchoring. *Economic Systems*, 40(3), 345-354.
- [28] Reilly, F. K., & Wachowicz, J. M. (1979). How institutional trading reduces market volatility. *The Journal of Portfolio Management*, 5(2), 11-17.
- [29] Rey-Martí, A., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2016). A bibliometric analysis of social entrepreneurship. *Journal of business research*, 69(5), 1651-1655.



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- [30] Riehmann, P., Hanfler, M., & Froehlich, B. (2005, October). Interactive sankey diagrams. In *IEEE Symposium on Information Visualization, 2005. INFOVIS 2005*. (pp. 233-240). IEEE.
- [31] Secinaro, S., Calandra, D., Secinaro, A., Muthurangu, V., & Biancone, P. (2021). The role of artificial intelligence in healthcare: a structured literature review. *BMC medical informatics and decision making*, 21, 1-23.
- [32] Sias, R. W. (1996). Volatility and the institutional investor. *Financial Analysts Journal*, 52(2), 13-20.
- [33] Small, M. L. (2006). Neighborhood institutions as resource brokers: Childcare centers, interorganizational ties, and resource access among the poor. *Social Problems*, 53(2), 274-292.
- [34] Tijssen, R. J. (2004). Is the commercialisation of scientific research affecting the production of public knowledge?: Global trends in the output of corporate research articles. *Research Policy*, 33(5), 709-733.
- [35] Wagner, N., & Winter, E. (2013). A new family of equity style indices and mutual fund performance: do liquidity and idiosyncratic risk matter?. *Journal of Empirical Finance*, 21, 69-85.
- [36] Xie, L., Chen, Z., Wang, H., Zheng, C., & Jiang, J. (2020). Bibliometric and visualized analysis of scientific publications on atlantoaxial spine surgery based on Web of Science and VOSviewer. *World neurosurgery*, 137, 435-442.
- [37] Yarovaya, L., Elsayed, A. H., & Hammoudeh, S. (2021). Determinants of spillovers between Islamic and conventional financial markets: exploring the safe haven assets during the COVID-19 pandemic. *Finance Research Letters*, 43, 101979.