



# EXCHANGE RATE EXPOSURE AND FIRM VALUE: A BIBLIOMETRIC ANALYSIS

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## ABSTRACT

This study employed bibliometric analysis to assess the literature on foreign exchange risk. To represent changes in a research field and identify potential future research directions, bibliometric analysis, a statistical technique, is used for exploring and analyzing vast amounts of scientific data, 125 documents for the years 1984 to 2021 using co-citation and bibliometric-coupling analyses. Identifying most citation author, country and articles in the area. Further four (bibliometric coupling) specific clusters of finance that apply Forex Exposure and firm value. The researcher also highlights trends and research using co-occurrence analyses.

**Keywords:** Forex Exposure, Exchange Rate Exposure, Firm value, Bibliometric Analysis

1.

## INTRODUCTION

The foreign exchange market (Forex, FX, or currency market) is a global decentralized or over-the-counter (OTC) market for trading of currencies. This market determines foreign exchange rates for every currency. In terms of trading volume, it is by far the largest market in the world, followed by the credit market. In finance, exchange rate is the rate at which one currency will be exchanged for another. An exchange rate is the price of one currency expressed in terms of another currency, or against a basket of other currencies. More than \$5 trillion is traded on the forex market every day, far more than is traded on the global stock market, making it the most active market in the world. Despite such massive trading volumes, currencies typically don't make headlines. However, there are instances when currency movements are dramatic and have an international impact. The foreign exchange market experienced a sea change with the collapse of the Bretton Woods system and the emergence of the era of flexible exchange rate regime, not only in terms of turnover but also in terms of its erratic nature (Dhagat & Raju, 2016). Globalization of national economies, floating foreign exchange rate regimes and international trade have led to increased exposure of firms to foreign exchange risk. Foreign exchange risk is the sensitivity of a firm's cash flows to unanticipated changes in exchange rates. Foreign exchange risk, also commonly referred to as currency risk, is more pronounced in businesses that deal with more than one currency in their import and export transactions. This risk can negatively impact the financial performance of a firm. The exchange rate is regarded as a key channel for bridging different economies (Wan & He, 2021). Because of the close relationship between the exchange rate and the country's trade balance, capital flows, and foreign debts, it is also one of the top concerns for policymakers (Hung et al., 2022). Recent studies have revealed that the risk of foreign exchange is extremely important for both investors and business owners. facilitated a clear understanding of management such risks (Kang et al., 2019). We have seen that the researchers have focused on the exchange rate risk and the area of firm's value. To reduce that risk, this area must receive more attention. As a result, we have determined that it is necessary to write research that integrates all prior contributions into a single document while also opening the door for future investigations.

Thus, this study aims to examine the countries and top authors who are publishing articles on exchange rate exposure and firm value, as well as the publication trend of exchange rate exposure and firm value the researcher use bibliometric analysis to present an overview of the bibliometric methodology, with a particular focus on its different techniques, while offering step-by-step guidelines that can be relied upon to rigorously perform bibliometric analysis with confidence. Bibliometric analysis is a popular and rigorous method for exploring and analyzing large volumes of scientific data. It enables us to unpack the evolutionary nuances of a specific field, while shedding light on the emerging areas in that field. and the best publications of these works, using citation analysis. Co-occurrence analysis is used to highlight the trends and research directions regarding exchange rate exposure and firm value, as the paper also intends to examine the development of exchange rate exposure and firm value globally. Additionally, bibliographic coupling is used to infer the knowledge and thematic organization of exchange rate exposure and firm value for the period of 1984 to 2021, resulting in the identification of four distinct areas of focus for exchange rate risk research in the finance.

Five sections make up the paper. Section 2 discusses the literature. The methodology & research tools & techniques are covered in Section 3, and the empirical analysis and interpretations are covered in Section 4. In Sections 5 the study's findings and their implications are covered

## **2. BACKGROUND OF THE STUDY**

### **a. Background On Forex Exposure**

Risk emerged from the unfavorable moments in exchange rate, when the firms are having receivables or payables, assets and liabilities in foreign currency, it can be called as exchange exposure or currency exposure. Risk connected to unexpected changes in exchange rates is known as foreign exchange exposure (Forex exposure). Exchange rate exposure is the unpredictability brought on by the inconsistent changes in currency exchange rates. According to (Hekman, 1983) exchange rate exposure is the "sensitivity of its economic value, or stock price, to exchange rate changes." Import, export, lending, borrowing, subsidiaries in foreign countries, and other activities are the main sources of exposure to foreign exchange risk.

Forex exposure, also referred to as foreign currency risks, describes the uncertainties in the expected cash flows of the companies as a result of unforeseen changes in exchange rates. For businesses engaging in international transactions with foreign currency invoices, the risk is significant (Abdul-Rahim et al., 2022).

A country's economic development is significantly impacted by changes in the exchange rate. However, a country's economic development is evaluated by the success of its businesses and industries. Although significant exchange rate fluctuations have occurred quite frequently over the past few decades and have a significant impact on firm performance (Mohapatra, 2020)

Estimating the currency exposure of listed Indian non-financial firms, (Modekurti & Rathi, 2019) When observed at the market and industry levels, the evidence at all levels suggests that sample firms, on average, during the study period, appear to have protected the quarterly changes in operating cash flows and net income from currency risk. However, both of these variables have demonstrated significant exposure at quintile levels, particularly between 2009 and 2016. It's interesting to note that quarterly changes in net income have a significant positive exposure to contemporaneous changes in USD during the second sub-period, and that this exposure is more symmetrical than asymmetrical.

### **b. Forex Exposure and Firm value**

As globalization and currency volatility rise in the modern era, a company's operations and profitability can be significantly impacted by changes in exchange rates. There is a common belief that changes in exchange rates should have an impact on corporate expected cash flows, and consequently stock returns, by changing the home currency value of foreign revenue (costs) and the terms of competition for multinationals and businesses with international operations (importers and exporters)(Doukas et al., 2003). It is implied that the market value of the company is sensitive to exchange rate uncertainty by the increasing focus on exchange risk management, the extensive use of foreign currency derivatives, and other hedging instruments by corporations to safeguard their foreign currency denominated cash flows from unexpected exchange rate movements (NANCE et al., 1993)(Bodnar et al., 1996)

(Azadeh, Hadian; Cahit, Adaoglu, 2020) This study examines the value effects of financial and operational hedging in a managed floating exchange rate regime with strict limitations on the trading of Malaysian Ringgit for a sample of 109 Malaysian multinationals from 2004 to 2018. The sample consists of non-financial

multinational companies listed on the Bursa Malaysia Main Board. The sample covers the 2004 to 2018 period. The results also show that the magnitudes of hedging by FC derivatives and FC debt affect company value in opposite directions. Operational hedging does not affect company value.

(LeI, 2012) investigates the impact of the strength of governance on firms' use of currency derivatives Using a sample of firms from 30 countries over the period 1990 to 1999, the study found that strongly governed firms tend to use derivatives to hedge currency exposure and overcome costly external financing.

(Bartram et al., 2011) examine the effect of derivative use on firm risk and value Using a large sample of nonfinancial firms from 47 countries, found that using derivatives is associated with significantly higher value.

### **c. management of exchange rate exposure**

(Bachiller et al., 2021) research on the relationship between financial hedging and firm performance, the findings show that the use of foreign currency derivatives, alone or along with other types of derivatives, drives firm value positively. They also show that hedging presents an economic advantage for all firms, especially those from common law and developed countries.

(Huang et al., 2019) Use the conditional autoregressive value at risk in this study to calculate the exchange-rate risk. We investigate the variables that affect China's exchange-rate risk in various regimes by developing a Markov regime-switching model. The findings demonstrate that in various regimes, trade balance, investor focus, and the interaction between policy uncertainty and investor focus have an asymmetric impact on exchange-rate risk. To be more precise, there is a linear relationship between trade balance and exchange-rate risk, a U-shaped relationship between investor attention and exchange-rate risk, and an inverted-U relationship between policy uncertainty and investor attention.

(Alam & Gupta, 2018) Examine whether the firm's hedging strategy adds value to the firm, and if so, is the source of the benefit consistent with hedging theory. By using 129 top non-financial Indian companies. The study discovers that firms engaged in hedging have lower volatility in their firm's value when compared to non-hedgers. Hedging has been shown to increase value for hedgers during the financial crisis.

(Luo & Wang, 2018) Using quarterly data from 2000 to 2013, investigate the relationship between the use of foreign currency derivatives and corporate value among Chinese firms. According to the study, Chinese firms that engage in derivative hedging to reduce their foreign exchange exposure have higher corporate value. Furthermore, it was discovered that the use of foreign currency derivatives has a greater impact on firm value.

(Debasish, 2008) investigated 501 non-banking Indian enterprises' foreign exchange risk management strategies in order to determine the techniques they employ to control their foreign exchange risk. The motive for hedging was discovered to be volatility and a reduction in cash flows. Forward contracts, swaps, and cross-currency options are some of the tactics employed by Indian companies. The paper addresses the many methods for managing foreign exchange risk.

(Papaioannou, 2006) investigated, for decreasing a company's vulnerability to major exchange rate volatility, measuring and managing exchange rate risk exposure is significant. This paper examines the different types of exchange rate risk faced by firms, namely transaction, translation and economic risks, it also discusses the VaR approach as the currently dominant method of measuring a firm's exchange rate risk exposure and examines the main advantages and disadvantages of various exchange rate risk management strategies, including tactical versus strategical and passive versus active hedging

(Streams et al., 2014) hedging of currency exposure by Indian corporate: evidence from select Indian IT companies. The study is based on secondary data. The three Indian IT companies TCS, Wipro and Infosys have been selected. The annual report for the year 2012-13 has been studied to analyse the hedging and risk management activities by these companies. This study conclude that Indian corporate have shown upward trend in using forwards for hedging their foreign exchange risk.

(Hedging Foreign Exchange Exposure : Risk Reduction from Transaction, 2002) investigated the impact of currency derivatives and foreign denominated debt in decreasing foreign exchange exposure. The outcomes were favorable.

### 3. RESEARCH METHODOLOGY

#### 3.1 Bibliometric analysis

By examining the bibliometric structure summing up the publication trends of articles, journals, authors, institutions, and countries, the researcher aim to infer Forex Exposure and the firm value in finance research. The researcher use quantitative tools for the analysis of bibliometric and bibliographic data as part of our bibliometric methodology(Goodell et al., 2021). The research utilizes a variety of bibliometric analysis methodologies to assess the research relevant to the Forex Exposure and firm value within foreign exchange market. In addition to being able to handle a large corpus, bibliometric analysis may identify publication trends, produce visualizations of the development of a subject, and identify emerging themes. This allows for both evaluation and foreseeing prospective future research areas(Hanaa & Abdul, 2023). The bibliometric analysis introduces a transparent, organized, and repeatable review method, which considerably raises the quality of the literature review. It gives a way to map the study areas and significant works without subjectivity, which is essential for providing comprehensive support for the literature process (Nasir et al., 2020).

#### a. Selecting the Analysis's Methods

The use of statistical and mathematical tools in the examination of books and media communication is known as bibliometrics. VOS Viewer was used by the study to analyse the data. A set of tools for quantitative bibliometric and scientometric research are provided by the bibliometrix package. The primary instrument of science, quantitative analysis, is reversed in bibliometrics. In its simplest form, bibliometrics is the application of quantitative analysis and statistics to works like journal articles and the citation counts that go along with them. Today, practically all scientific domains use quantitative analysis of publication and citation data to assess a community's growth, maturity, top authors, conceptual and intellectual frameworks, and trends. In addition, policymakers, research directors and administrators, information experts and librarians, as well as academics themselves, employ bibliometrics to assess the effectiveness of their own research, particularly in government and academic labs. Graphical maps have been represented using the Vos-Viewer programme. The information in terms of bibliographic coupling, citation, co-citation, and co-occurrence of author keywords can be shown graphically by the Vos Viewer(Flores-Sosa et al., 2022).

#### b. Data Collection

Our bibliometric data is divided into two parts. We choose the source in the first section from which to pull articles for analysis. We have chosen the data base Scopus to extract the necessary data for that purpose. According to (Hanaa & Abdul, 2023) Across all fields, Scopus offers more papers than Web of Science. Yet Google Scholar has a lot more publications than Web of Science and Scopus put together for every discipline. However, they warn that the quantity of papers typically available in Google Scholar should not be taken too seriously because many of these papers may be duplicate records with fewer than two citations, highlighting the fact that Scopus is the most trustworthy database. They also advise manual cleaning and merging of stray citations for individual academic documents. In the second segment, we have formed the search query for holistic data collection. we have applied various filters to our search query and make it match to our objective and optimal results. Table 1 provides a thorough description of the methodical process used to obtain the data. Even though the data period is from 1984 to 2021, the year 2022 is not included because it is only in the middle. Also, in this study on augmented reality-related research in tourism, keywords were used to retrieve the data from Scopus using the (Hanaa & Abdul, 2023) technique.

Table 1: Search criteria

Filtering criteria	excluded	Included
Data base: Scopus		
Date of search:10-08-2022		
Key words: “foreign exchange exposure” OR “currency risk exposure” OR “exchange rate fluctuation” AND “value of firm” OR “financial performance”		
Published from: No limit		
Subject area: Economics, Econometrics and finance		
Document type: Articles only		
Limit language : English only		126
Duplication	1	125

#### 4. Bibliometric results and discussion

##### i. Performance analysis of Exchange Rate Exposure and Firm Value

Publications trends in years from 1984 to 2021, Figure 2 shows the publication trends of articles on Forex Exposure and value of firm. The years 2019 (12 article), 2020 (11 article) and 2021 (17 article) saw the highest number of articles, whereas 1977 saw the publication of the sole pertinent article. The number of articles that have been published on this subject has clearly increased over time. Figure 2 in particular demonstrates a notable increase in research since 2000. The papers that were chosen focus on how to reduce the risks that businesses face when engaging in international financial transactions.

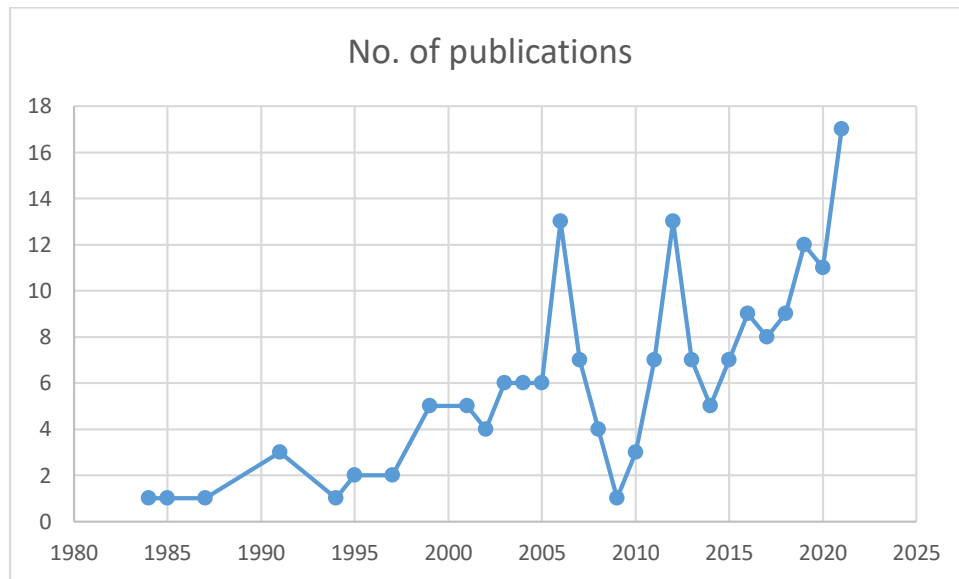


Figure 1. Publications Trends in years

Source: Elaborated by the authors and based on data by Scopus

##### ii. Top authors and countries of Exchange Rate Exposure and Firm Value

Table 2. Top cited authors and cited countries

Author	TP	TC	Country	TP	TC
Allayannis G.	2	536	United States	63	2851
Bartram S.M.	3	172	United Kingdom	25	545
Muller A.	3	82	France	6	177
Verschoor W.F.C.	3	82	Netherlands	5	122
Hagelin N.	2	50	Sweden	7	110
Pramborg B.	2	50	Turkey	6	100
Aabo T.	2	38	Australia	8	68
El-Masry A.A.	2	38	Germany	8	64
Judge A.	2	36	Norway	4	63
Clark E.	2	33	Pakistan	4	49

Note: TC=total citations, TP= total publications

Source: Elaborated by the authors and based on data by Scopus

The top ten authors are listed in Table 2. With 536 citations and a maximum of 2 published documents, Allayannis G. emerges as the most significant author in exchange rate exposure. Bartram S. M with 172 citations and a maximum of 3 published documents.

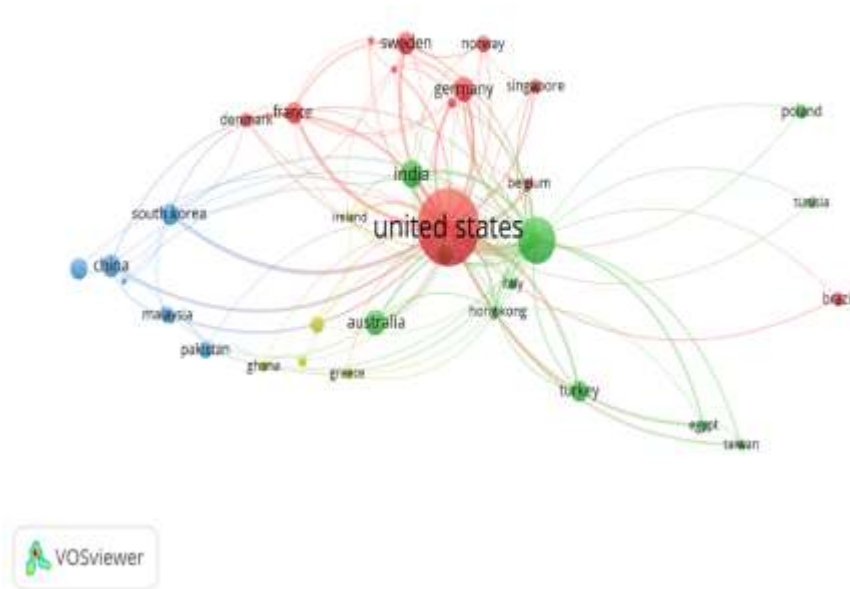


Figure 2. Citation network linking authors' countries of (created using VOSviewer)  
Source: Elaborated by the authors and based on data by Scopus

Figure 2 visualizes the citation network linking authors' countries of origin. The US has the highest number of widely cited authors (2851) on the topic of exchange rate risk and value of the firm. The UK is the second while France, Netherlands, Sweden, Australia and Germany, among others, have also made significant contributions.

### iii. Top Cited Documents

Table 3. The most cited Documents

Author	Title	Citations
Allayannis G. (2001)	The use of foreign currency derivatives and firm market value	461
Stulzu R.M. (1984)	Optimal Hedging Policies	395
Jorion P. (1991)	The Pricing of Exchange Rate Risk in the Stock Market	302
Guay W. (2003)	How much do firms hedge with derivatives?	265
Dominguez K.M.E. (2006)	Exchange rate exposure	188
Williamson R. (2001)	Exchange rate exposure and competition: Evidence from the automotive industry	151
Linsmeier T.J. (2002)	The effect of mandated market risk disclosures on trading volume sensitivity to interest rate, exchange rate, and commodity price movements	134
Chaney T. (2016)	Liquidity constrained exporters	122
Kim Y.S. (2006)	Is operational hedging a substitute for or a complement to financial hedging?	96
Bartram S.M. (2004)	Linear and nonlinear foreign exchange rate exposures of German nonfinancial corporations	88

Source: Elaborated by the authors and based on data by Scopus

Table 3 lists citations for Documents that discuss forex. The most citations (461) are allayannis g. (2001) for the title of the use of foreign currency derivatives and firm market value, while the next followed by stulzu r.m. (1984) with (395 citations), the title of Optimal Hedging Policies.

iv. Most Cited Sources

Table 4. Ranking The most cited Sources

Source: Elaborated by the authors and based on data by Scopus

Rank	Source	Documents	Citations
1	Journal of Financial and Quantitative Analysis	3	697
2	Journal of Financial Economics	3	490
3	Journal of International Economics	5	331
4	Journal of International Money and Finance	7	230
5	Managerial Finance	15	150
6	Journal of Corporate Finance	2	139
7	Journal of Multinational Financial Management	6	120
8	European Financial Management	5	117
9	Journal of Banking and Finance	2	99
10	Journal of International Financial Management and Accounting	3	96

In Table 4, the 10 Sources with the highest number of citations for articles on exchange rate risk are listed along with the number of articles and citations for each journal. The journal of financial and quantitative analysis is first with 697 citations and 3 documents, the journal of financial economics is second on the list, with 490 citations and 3 documents, and 10<sup>th</sup> place is held by Journal of International Financial Management and Accounting, which has 96 citations and 3 documents.

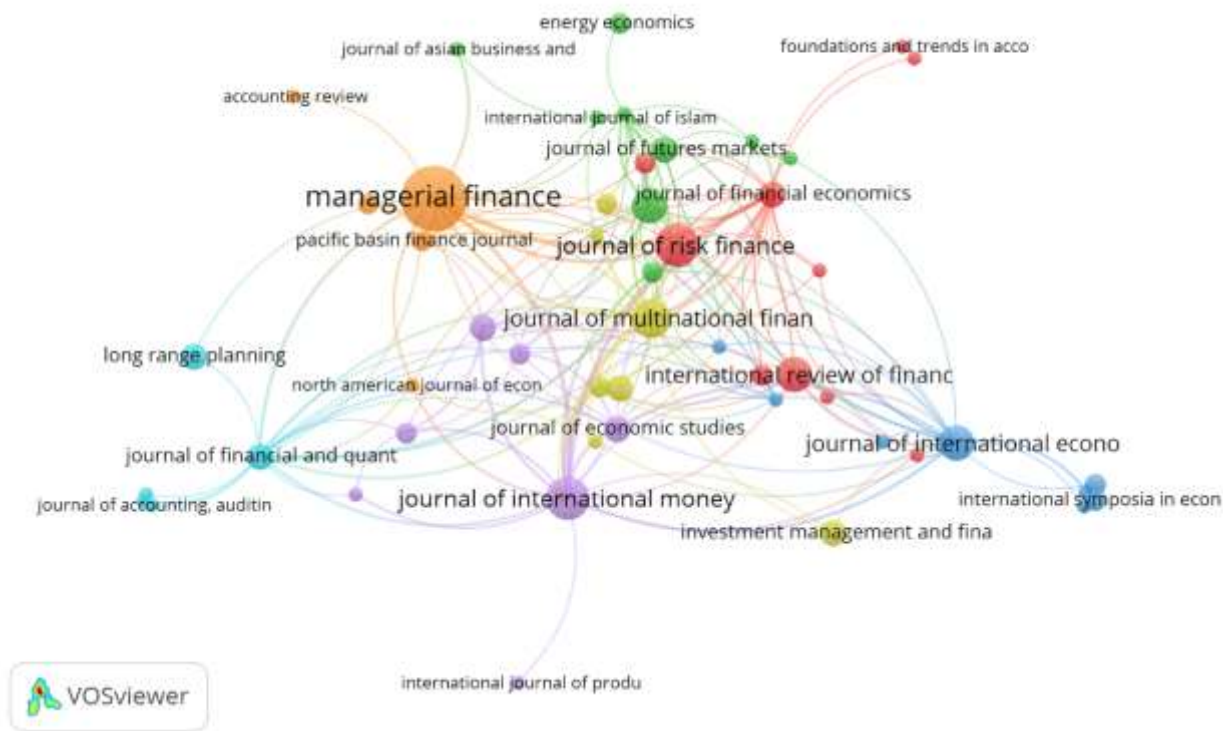


Figure 3. Journal citation network (created using VOSviewer)  
 Source: Elaborated by the authors and based on data by Scopus

A graphical representation of the journal citation network, shown in Figure 3, shows how research on foreign exchange risk has evolved. To visualize the network, VOSviewer was employed. This citation network analysis also serves as a gauge of the calibre of journal articles. This citation network also helps us comprehend how this subject has evolved in the scientific community. In other words, it demonstrates that ideas that emerged from the research have consistently been cited over time. The identification of the expanding literature on foreign exchange risk is the foundation for the clustered network relationships between journals.

*v. Keywords Co-Occurrence Analysis*

In Table 5 shown the most common keywords, their frequency, and their ranking in research papers on Forex Exposure and value of the firm. These 18 keywords serve as a filter to help you better understand the common emerging trends in this research topic over time. They reflect the key themes in this research domain.

Table 5. Ranking analysis of keywords co-occurrence

Rank	Keyword	Occurrences	Rank	Keyword	Occurrences
1	Hedging	25	10	currency risk	5
2	risk management	22	11	emerging markets	5
3	exchange rate	12	12	exchange rate risk	5
4	exchange rate exposure	11	13	financial hedging	5
5	Derivatives	10	14	stock returns	5
6	exchange rates	10	15	Currency derivatives	4
7	foreign exchange exposure	10	16	economic exposure	4
8	foreign exchange	6	17	Exposure	4
9	foreign exchange risk	6	18	firm value	4

Source: Elaborated by the authors and based on data by Scopus

In Figure 4 is Presented the keyword co-occurrence network. The content in the chosen articles that is most pertinent to forex is represented by these keywords. Additionally, these keywords make it easier to locate relevant articles when using search engines. According to the graph, the most popular search terms in the industry are hedging, risk management, and exchange rate and exchange rate exposure.

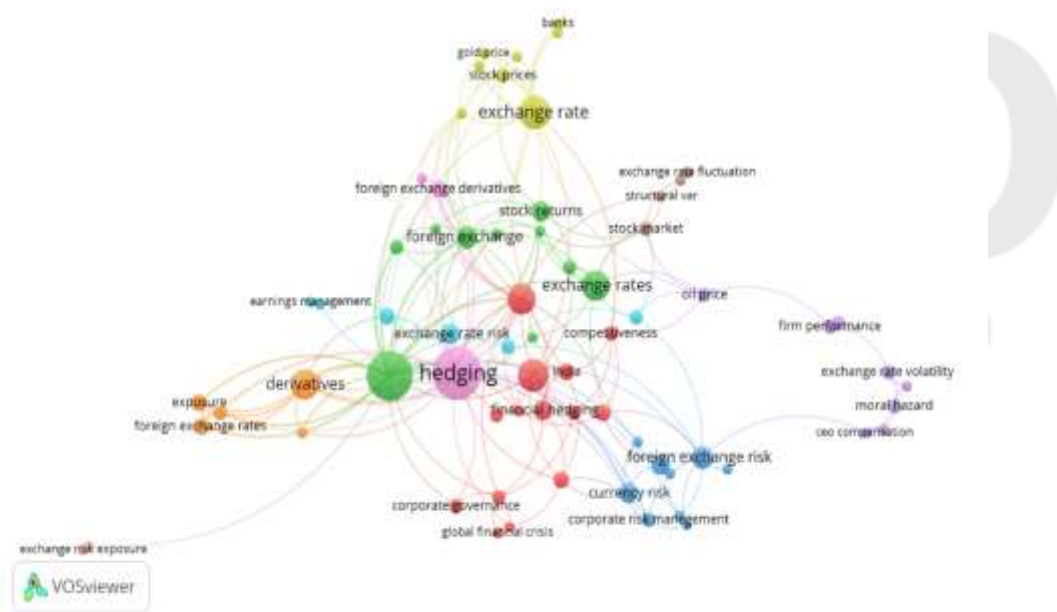


Figure 4. Keywords co-occurrence (created using VOSviewer)

Source: Elaborated by the authors and based on data by Scopus



*vi. Thematic Clusters of Forex Exposure in Finance Through Bibliographic Coupling*

Creating thematic or social clusters is the main objective of clustering, another bibliometric analysis enrichment technique, depending on the type of analysis being done. network clusters creation and tracking their growth can be helpful for comprehending how the research field takes shape and grows. (Donthu et al., 2021)

Table 6. Thematic clusters of forex-exposure research in finance

<b>Theme</b>	<b>Author(s)</b>	<b>Title</b>	<b>Tc</b>
Forex Exposure and derivatives	aabo t. (2006)	debt in managing exchange rate exposures in non-financial companies	38
	allayannis g. (2001)	The use of foreign currency derivatives and firm market value	461
	allayannis g. (2012)	The use of foreign currency derivatives, corporate governance, and firm value around the world	75
	choi j.j. (2003)	The Asian exposure of U.S. firms: Operational and risk management strategies	44
	clark e. (2009)	Foreign currency derivatives versus foreign currency debt and the hedging premium	33
	guay w. (2003)	How much do firms hedge with derivatives?	265
	kim y.s. (2006)	Is operational hedging a substitute for or a complement to financial hedging?	96
	linsmeier t.j. (2002)	The effect of mandated market risk disclosures on trading volume sensitivity to interest rate, exchange rate, and commodity price movements	134
	nelson j.m. (2005)	The impact of hedging on the market value of equity	43
Forex Exposure And Determinants	bartram s.m. (2004)	Linear and nonlinear foreign exchange rate exposures of German nonfinancial corporations	88
	bartram s.m. (2008)	What lies beneath: Foreign exchange rate exposure, hedging and cash flows	67
	de jong a. (2006)	A firm-specific analysis of the exchange-rate exposure of Dutch firms	29
	hagelin n. (2004)	Foreign exchange exposure, risk management, and quarterly earnings announcements	50
	hutson e. (2010)	Openness, hedging incentives and foreign exchange exposure: A firm-level multi-country study	49
	muller a. (2006)	Foreign exchange risk exposure: Survey and suggestions	57
	pritamani m.d. (2004)	Foreign exchange exposure of exporting and importing firms	4
	wei k.d. (2013)	Foreign Exchange Exposure Elasticity and Financial Distress	27
Forex Exposure And Firm Value	dominguez k.m.e. (2006)	Exchange rate exposure	32
	ekholm k. (2012)	Manufacturing restructuring and the role of real exchange rate shocks	40
	marston r.c. (2001)	The effects of industry structure on economic exposure	86
	williamson r. (2001)	Exchange rate exposure and competition: Evidence from the automotive industry	151
Models for Forex Exposure	bali t.g. (2011)	Do hedge funds' exposures to risk factors predict their future returns?	74
	doukas j.a. (2003)	Exchange Rate Exposure at the Firm and Industry Level	55

	Jorion p. (1991)	The Pricing of Exchange Rate Risk in the Stock Market	302
	Stulz R.M. (1984)	Optimal Hedging Policies	395

Source: Elaborated by the authors and based on data by Scopus

M. M. Kessler of MIT introduced the idea of bibliographic coupling in a paper that was published in 1963. To explain the state of the art in a field, bibliographic coupling uses citations from published works. (Kessler, 1963). A technique for science mapping called bibliographic coupling works under the premise that two publications with similar references also have similar content. (Donthu et al., 2021). It is an evidence that there is a chance the two works deal with the same subject matter. Table 6 provides an overview of the four thematic clusters that support the knowledge structure of forex exposure and value of the firms. that was discovered through bibliographic coupling.

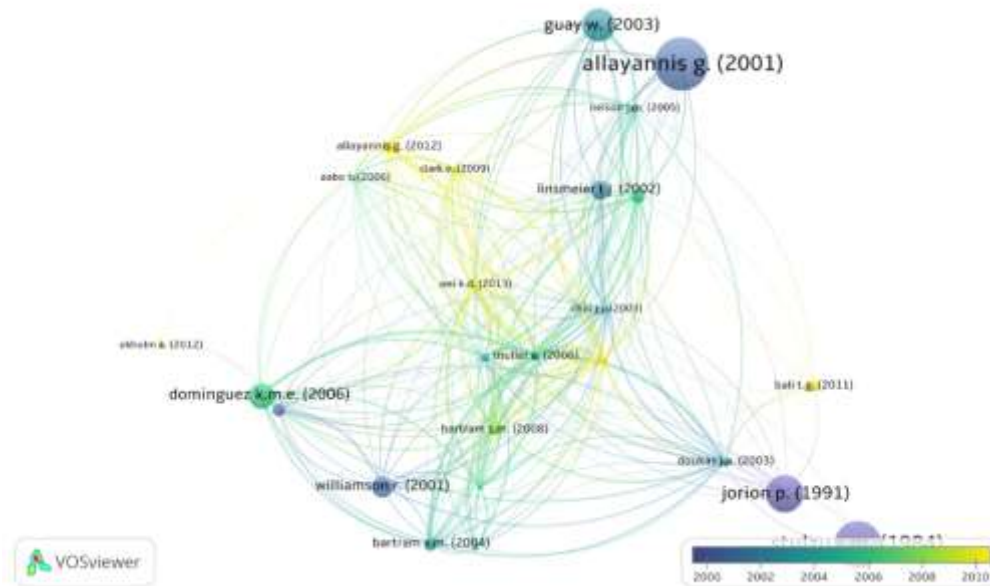
Nine articles in Cluster 1 show the strong value of using hedging to manage forex exposure. The studies focus more on hedging and determine whether market share or market value is important or not, One of the authors who is frequently cited is (Allayannis & Ofek, 2001) title on The use of foreign currency derivatives and firm market value (461 citation). Then came the article How much do firms hedge with derivatives? by (Guay & Kothari, 2003) (265 citation). The effect of required market risk disclosures on trading volume sensitivity to interest rate, exchange rate, and commodity price movements (Linsmeier et al., 2002) (134) citation is the third most cited paper.

Eight articles in Cluster 2 discuss forex exposure and the factors that affect it. Linear and nonlinear foreign exchange rate exposures of German nonfinancial corporations (Bartram, 2004) has received the most citations (88). then comes (Bartram, 2008) What lies beneath: Foreign Exchange Rate Exposure, Hedging, and Cash Flows is the title, according to citation (67). Foreign exchange risk exposure: Survey and recommendations has (57) citations, making it the second most cited title.

The four articles in Cluster 3's firm value and forex exposure section looked at how different firms' exposure to exchange rates affected their values. First one Exchange rate exposure and competition: Evidence from the automotive industry (Williamson, 2001) (151) citation is the most cited title from this. The effects of industry structure on economic exposure (Marston, 2001), which has 86 citations, is the second most cited paper. Manufacturing restructuring and the impact of real exchange rate shocks by Ekholm, Moxnes, and Ulltveit-Moe (2012) with (40) citations is the following title.

Four articles in Cluster 4 are centred on Models for Forex Exposure. It focuses primarily on models appropriate for calculating foreign exchange exposure. Among the four articles, Optimal Hedging Policies received the most citations. (Stulz, 1984), with (395), The Pricing of Exchange Rate Risk in the Stock Market by Jorion p. (1991), with 302 citations, and Do hedge funds' exposures to risk factors predict their future returns are the next two papers with the most citations. exchange rate exposure at the firm and industry level (Doukas et al., 2003) is the last and least cited paper, with 55 citations, followed by (Bali et al., 2011) Do hedge funds' exposures to risk factors predict their future returns? with (74) citations.

Research Through Innovation



**Figure: 5** Thematic clusters of forex exposure in finance through bibliographic coupling

Source: Elaborated by the authors and based on data by Scopus

#### 4. CONCLUSION

The researcher aims to infer Forex Exposure and value of the firm in finance research by looking at the bibliometric structure summarizing the publication trends of articles, journals, authors, institutions, and countries. As part of our bibliometric methodology, the researcher uses quantitative tools to analyse bibliometric and bibliographic data (Goodell, Kumar, Lim, & Pattnaik, 2021). A bibliometric review has the capacity to provide information about fields that are characterized by an abundance of bibliometric and bibliographic data, in contrast to traditional systematic literature reviews. The study reveals the relationship between firm value and Forex Exposure in finance as well as recent developments in the study of Forex Exposure. According to the study, researchers are primarily focused on Forex Exposure, or the currency risk, because Changes in exchange rates have a significant impact on the operations and profitability of companies in the current era of growing globalization and increased currency volatility. Small and medium-sized businesses, including those that only conduct business in their home country, are also impacted by exchange rate volatility in addition to multinational corporations, large corporations, and businesses that conduct business in international markets. Investors should be aware of exchange rate risk as well because of the significant impact it can have, even though business owners are naturally interested in understanding and managing it. Recent research has also concentrated on the relationship between forex exposure and financial performance, a topic with enormous potential for study in the field of finance. Given that India is a country with a lot of opportunities for conducting research in the area of exchange rate exposure, and that Indian researchers are doing much less research in this area compared to the high publishing countries.

#### AUTHORS CONTRIBUTION

According to this study, there has been a noticeable increase in the amount of research on Exchange rate exposure over the past 15 years, and authors from a wide variety of nations have contributed. Networks of cooperation have been created as a result of greater integration among researchers to help close knowledge gaps. Additionally, similarities between the distinctive keywords of various articles in the field were discovered. These groups make it easier to identify contexts where various research philosophies overlap.

#### FUTURE RECOMMENDATIONS

The purpose of this study was to identify gaps in literature on foreign exchange risk from 1984 to 2021. Future research should take into account emerging trends that could result in various future risks. Especially in India, India will also adopt international currency standards. Given that India is a country with a lot of opportunities for conducting research in the area of exchange rate exposure, and that Indian researchers are doing much less research in this area compared to the high publishing countries. The researcher suggested expanding the articles'

scope because they primarily focus on forex exposure and the company's value in non-financial firms and industries. It is possible to expand the samples of future research to include the financial sectors. since risk management is a tool used by investors and fund managers to reduce and control the exposure of their investments to such risks. Risk management should be given priority when making investment decisions during a financial crisis to prevent negative outcomes. The level of risk associated with different asset classes varies. microfinance companies operate have introduced, there is a growing need for alternatives to currency hedging. Studies have further suggested that a risk management structure be implemented by businesses to show the methodology used to assess currency risk as well as the management techniques used to deal with it.

## LIMITATIONS

Contrarily, the researcher has some limitations, just like every other research paper. the one of our research paper's primary limitations due to Scopus being the only significant database that contains articles that have undergone peer review, this is one of our research paper's primary limitations. Second, the research's results depend heavily on the keywords that were selected; accordingly, changing the keywords might have led to different results. Due to the fact that it is the middle of the year 2022, we finally limited our scope to that year.

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