INSIGHTS ANALYSIS OF THE SUPPLY CHAIN FINANCE

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Abstract

Supply Chain Finance has emerged as a pivotal strategy for enhancing financial efficiency and reducing expenditure within supply chains. This article aims to explore the evolving trends in SCF by conducting a systematic literature review of articles published in Scopus-indexed journals from 2017 to 2022. Employing both quantitative and qualitative analyses, this study maps global article patterns in Supply Chain Finance, revealing the most cited works, leading authors, influential journals, key research keywords, and the primary contributing countries. Preliminary findings suggest a surge in interest in integrating digital technologies in Supply Chain Finance. By delineating the current state of Supply Chain Finance research and identifying literature gaps, this study not only contributes to academic discourse but also lays down a robust foundation for future empirical and theoretical advancements in the field. Consequently, it outlines crucial areas for forthcoming research, aiming to foster innovation and development within Supply Chain Finance.

Keywords: Supply Chain, Supply Chain Management, Supply Chain Finance, Analysis, Management.

1. INTRODUCTION

Supply Chain Finance helps companies reduce financial costs and improve companies' performance *(Hofmann E. and Zumsteg S., 2015)*. *Supply Chain Finance* is a strategy aimed at maximizing working capital efficiency. To ensure the successful growth of the Supply Chain Finance, it is crucial to consider its unique features and wide range of players to support the economy and small/ medium-sized companies effectively.

Although Logistics, Supply Chain Management, Collaboration, and Finance have been extensively studied, Supply Chain Finance is a relatively nascent discipline. Figure 1 demonstrates a company`s Supply Chain Finance strategy and its primary Supply Chain Network, which encompasses possible service providers.

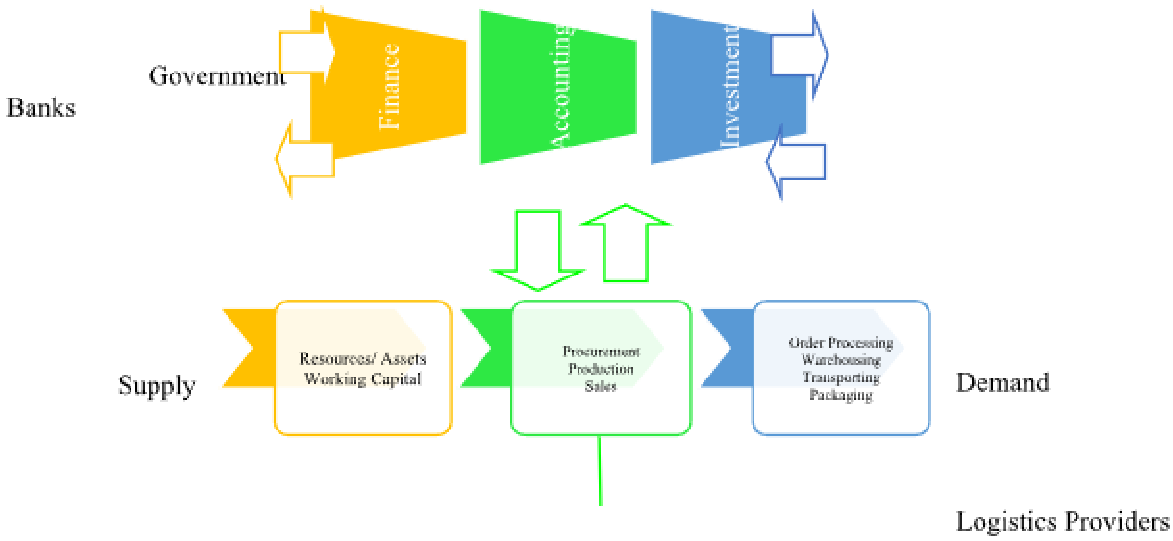

Figure 1: *Supply Chain Finance Methodology*

Supply Chain Finance has played a crucial role in operational and financial practices and has garnered attention among academics and industries *(Yan B. et al., 2020)*. There are several Literature Reviews with the same theme of Supply Chain Finance as examples *(Chang S. et al., 2023)*.

In recent years, there has been a rise in the amount of research dedicated to Supply Chain Finance. This has contributed to developing a more precise and varied conceptual Framework for describing Supply Chain Finance.

The article aims to comprehensively analyze the present state and global publishing patterns of Supply Chain Finance. In this article, Section 2 describes the Literature Review. Section 3 describes the Methodology used to collect data. Section 4 concludes by presenting the Results. The article closes with Section 5, which pertains to the Conclusions established to suggest potential future research directions in the field of Supply Chain Finance.

2. LITERATURE REVIEW

2.1 Supply Chain Management

The Supply Chain is the facilities, functions, and activities involved in producing and delivering a product or service from suppliers to customers *(Rusell R., and Taylor B., 2019)*. The integration of activities and processes among the supply chain members is frequently referred to as Supply Chain Management *(Handfield R.B. and Nichols E.L., 2003)*. Supply Chain Management involves the critical company activities that connect final consumers with initial suppliers, who provide products, services, and information that enhance value for customers. Supply Chain Management is the integration of trading partners' key business processes from initial raw material extraction to the final customer, including all intermediate processing, transportation, and storage activities, and final sale to the product customer *(Wisner J.D. et al., 2012)*.

In the procurement area, Supply Chain Management focuses on supplier selection, sourcing cost improvement, and sourcing risk management. In the manufacturing area, Supply Chain Management focuses on production planning and control, production R&D, maintenance and diagnosis, and quality management. In the logistics and transportation area, Supply Chain Management focuses on logistics planning, in-transit inventory, and management. In the warehousing area, Supply Chain Management focuses on storage assignment, order picking, and inventory control. In the demand management area, Supply Chain Management focuses on sensing current demand, shaping future demand, and demand forecasting *(Zhang Zh. and Li J., 2020)*.

2.2 Supply Chain Finance

The main characteristic of Supply Chain Finance is the integration of financial flows into the Supply Chain, which is an integral part of Supply Chain Management *(Stemmler L., 2002)*. Supply Chain Finance is an approach for an organization or multiple organizations within the supply chain, including external service providers, to collectively create value by planning, driving, and controlling the flow of financial resources at the organizational or inter-organizational level *(Hofmann E., and Kotzab H., 2010)*.

According to *(Gomm M., 2010)*, the goal of Supply Chain Finance is to optimize cross-border financing between companies to reduce the cost of capital and accelerate cash flow. The advantages of implementing a Supply Chain Finance systemare:

For consumers: preserving liquidity, safeguarding money, and boosting revenue.

For suppliers: increasing working capital and enhancing cash flow.

For banks: receiving fees for maintaining services to suppliers and consumers.

Supply Chain Finance is the optimization of financing between companies and the integration of financing processes with customers, suppliers, and service providers to enhance the value of all participating companies *(Pfohl H.C., and Gomm M., 2010)*.

3. METHODOLOGY

Bibliometric analysis is the application of statistical and quantitative approaches to research articles and publications *(Thomson R., 2008)*. The article used an advanced search method to identify all scientific articles in the Elsevier database (www.sciencedirect.com) between 2017 and 2022 that had the phrase "Supply Chain Finance" within two fields:

1. *Economics, Econometrics, and Finance.*
2. *Business, Management, and Accounting.*

The research in the article included 7,627 results on the topic of Supply Chain Finance. The details of the results are shown in Table 1.

Table 1.

Classification of research on Supply Chain Finance on Elsevier database

Research Type	***No.***
Research Articles	6,890
Book Chapters	305
Review Articles	145
Other	138
Editorials	76
Short Communications	42
Discussion	12
Case Reports	7
Mini Reviews	6
Book Reviews	4
Conference Abstracts	1
Erratum	1

Many tools are available to facilitate bibliometric analysis, including CiteSpace, Bibexcel, SciMAT, Gephi, VOSviewer®, UCInet, etc. The original data received in the article from Table 1 were used for further analysis using VOSviewer® software version 1.6.20. The methodology applied is shown in Figure 2 to achieve the article's goals.

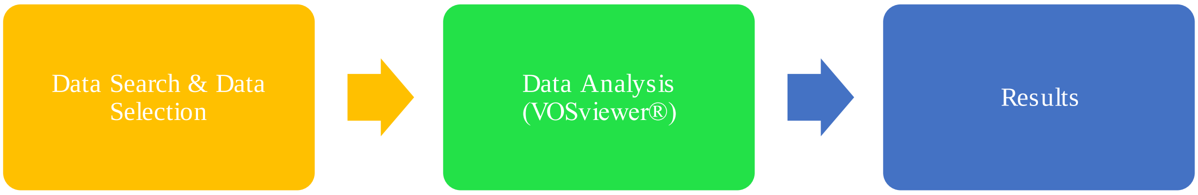

Figure 2. *The methodology*

4. RESULTS AND DISCUSSION

The research results obtained using VOSviewer® software provide a comprehensive and organized perspective on worldwide Supply Chain Finance.

A total of 7,627 articles were published from 2017-2022. Between 2017 and 2019, there was a substantial increase in published articles, rising from around 770 in 2017 to 1,066 in 2019. Most articles (64.13%) were published from 2020-2022. The discipline of Supply Chan Finance is developing as a research subject worldwide. The number of articles published on Supply Chain Finance conducted per year from 2017 to 2022 is shown in Figure 3.

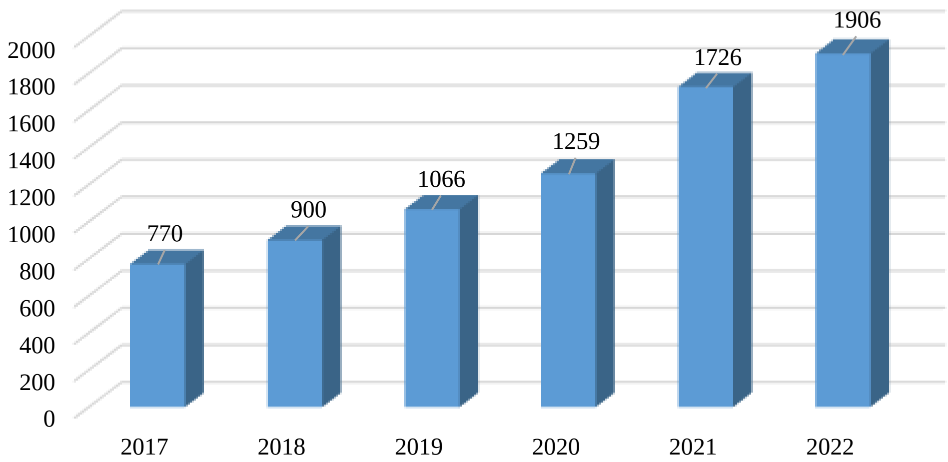

Figure 3. *The number of articles published through the period 2017-2022*

Figure 4 shows the graphical research trend in Supple Chain Finance categorized by their source of publication. The Top 3 journals in Supply Chain Finance are in decreasing order:

Technological Forecasting and Social Change, International Journal of Production Economics, and Journal of Business Research.

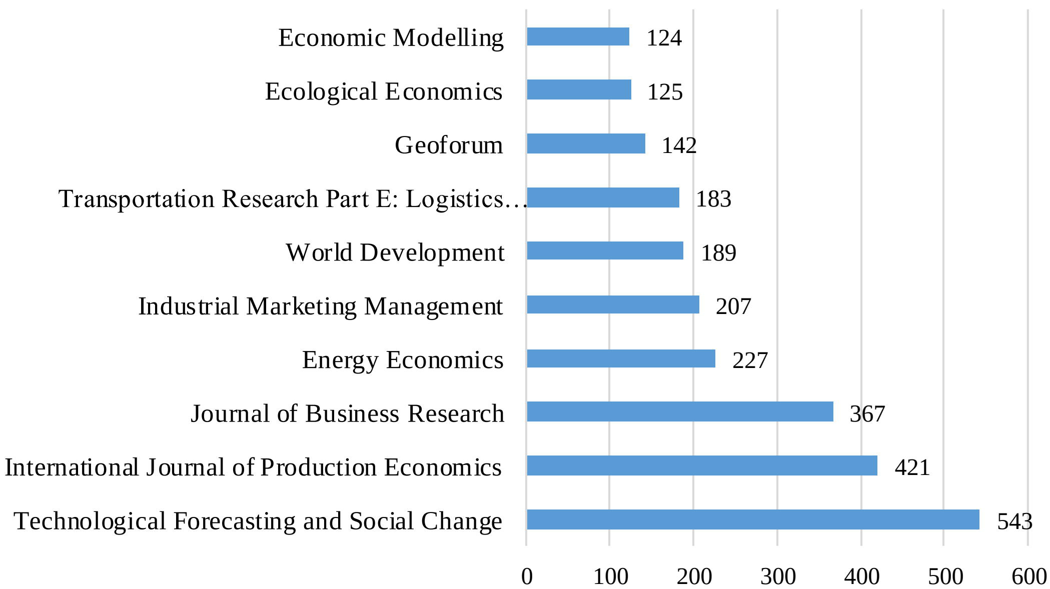

Figure 4. *The number of 10 Top journals on Supply Chain Finance*

Figure 5 shows the graphical research on Supply Chain Finance among different countries. China has the highest number of research articles on Supply Chain Finance. The United States is the second country, followed by Germany as the third country.

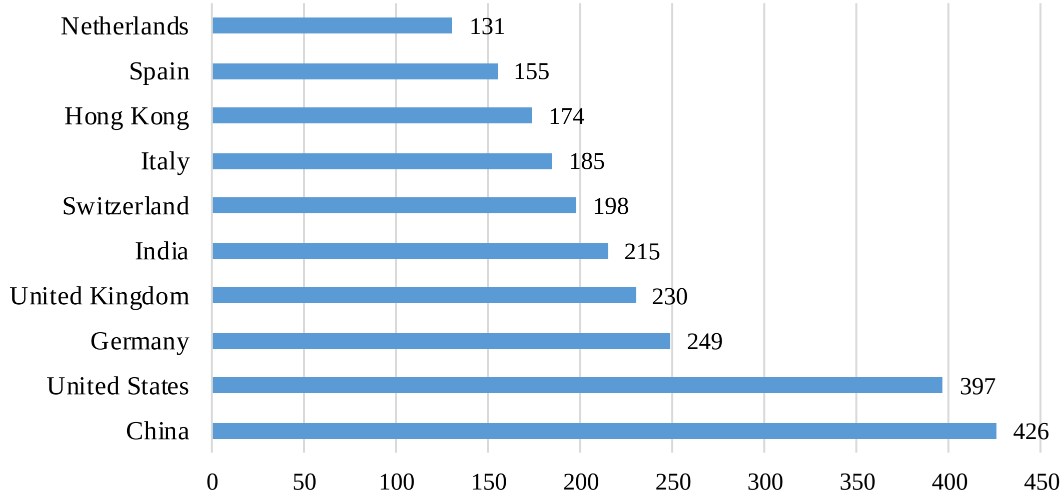

Figure 5. *The number of 10 Top Countries on Supply Chain Finance*

According to *(Hudha M.N et al., 2020)*, VOSviewer® can be applied for data analysis and can be graphically represented in the form of bibliometric maps. The article uses bibliometric analysis about Supply Chain Finance, using network data visualization in Figure 6.

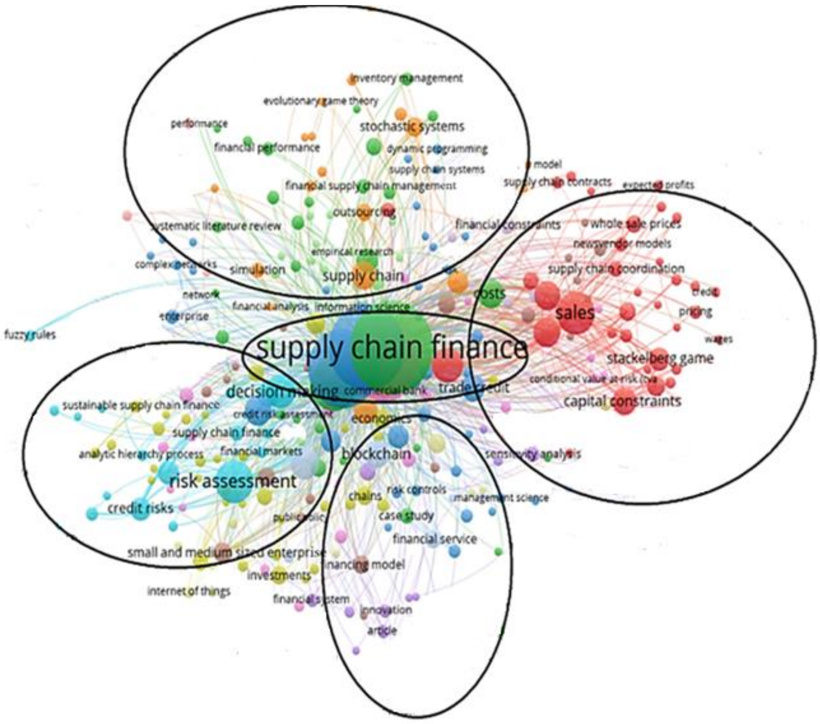

Figure 6. *Network data visualization on Supply Chain Finance (VOSviewer®)*

- **s** 426 articles.

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