Mapping the Literature of Financial Management Behavior:A Bibliometric Analysis

Deepa[1],Manoj Kumar[2], Kirti[3], Rohit Kumar[4], Kusum Malik[5], Parveen[6]

[1] Research Scholar, Department of Commerce, Maharshi Dayanand University, Rohtak, Email id: deepasanwar@gmail.com (first author)

[2] Assistant Professor, Department of Commerce, Tau Devi Lal Government College for Women, Murthal Sonipat, Email id: manojdahiya1981@gmail.com (corresponding Author)

[3] Assistant Professor, Department of Management&studies, Dr. K N Modi, University, Newal, Rajasthan, Email id: kirti.rs.comm@mdurhotak.ac.in

[4] Assistant Professor, Department of Commerce, Tau Devi Lal Government College for Women, Murthal Sonipat, Email id: arya.rohit48@gmail.com

[5] Assistant Professor, Department of Commerce, GCW Mohana, Email id: Kusumpannu@gmail.com

[6] Assistant Professor, Department of Commerce, CCS Jain Girls College Sonipat, Email. id: Parveendahiya2006@gmail.com

Abstract

The publication of financial management behavior research has grown gradually, and the tendencies have been persistently improving.Nevertheless, there is a need to provide an in-depth scientific analysis of the field. Because of this, the study uses knowledge structure synthesis to try and identify the trend in the research field.A Bibliometric analysis of financial management behaviour was carried out. The Scopus database was used to compile literature on financial management behaviour from 1969 through 2022. The study selected 389 valid documents for further examination based on the 'keywords' search results.Out of 389 publications, 322 are Articles, 27 Book Chapters, 27 Conference Papers, 11 Reviews, one Book, and one Letter.The authors then used Biblioshiny R package to visualize the data. Results reveal that from 2007 until the present, there has been a rise in the literature on financial management behaviour. However, in 2013, the figure was slightly lower.

Keywords: Financial management behavior, financial management

1. Introduction

The developments in the global financial world include deregulation of financial markets and several advanced investment products that are now available in the market. The complexity of products makes them difficult for anybody to understand, particularly for financially inexperienced investors. Financial management behaviour includes possession, distribution, and makes use of financial assets with a particular purpose in mind. Previous studies suggest that when families achieve excellent financial management, so there is an improvement in the long-term economic well-being and financial satisfaction (CFPB, 2015). Financial behavior is intimately linked to financial literacy and financial aptitude (Xiao, 2014).Financial literacy is

By : School of International Business and Entrepreneurship (SIBE)

"knowledge and understanding of finance and risks, as well as the skills, motivation, and confidence to implement such understanding and knowledge in order to make sound decisions across a variety of financial circumstances, to enhance individuals' and society's financial well-being, and to facilitate access to economic life." (OECD, 2014). It is critical to create a long-term economic strategy, to understand financial options for investing or saving money. Thus this study uses a comprehensive approach to pool the previous literature of 53 years using Bibliometric analysis to better understand the financial management behavior. Thus there is a need to manage finance effectively and efficiently.

Financial management behavior plays a crucial role in one's life as financial resources are scare therefore it is vital to wisely manage them. It can be defined as the management of one's savings, budget and the expenditure that he/she made. Previous studies, (Camara and David, 2015) suggested that regardless of the individual's financial situation, financial management should be practiced in the decision making process or making financial objectives. Moreover, there are various antecedents of financial behavior. The study conducted by (Bapat 2020)examined various antecedents of FMB. The study was conducted on the young adults (between ages 18-35). The findings demonstrate a relationship between the financial awareness, financial attitude and ideal financial management behavior. Furthermore, Owusu (2021) studied various demographic factors that can affect the individual's financial behavior. The study considered factors like age, income, gender, and status of employment. The findings revealed that age, gender and occupation are demographic parameters that influence prudent financial management behaviour.There is plenty of empirical and theoretical work that has been conducted in the past; it is generally dispersed among the countries and fields like finance, psychology and consumer behavior. Thus there is a need of comprehensive study in the field of financial management behavior. The study considered publication right from the evolution of the concept to present.

1.1 Bibliometric analysis

Itemploysstatistical perspective to examineblueprint in previously available material (Singh and Dhir, 2019).The bibliometric analysis emerged from library and information science research utilizing a huge number of bibliographic resources (Broadus, 1987). In several research disciplines it examines and map published work in the topic.Besides analyzing, bibliometric studies classify bibliographic information by generating meaningful summaries of existing literature. Financial management behaviour has emerged as an interdisciplinary field throughout

By : School of International Business and Entrepreneurship (SIBE)

time. In this context, it is critical to study the existing publications with the goal of recognizing the series of the research ground. This study answers the subsequent questions:

1.2 Research Objective

(1) Who are the most significant financial management behaviour journals and authors?

(2) What constitutes the research community's conceptual and intellectual foundation?

(3) What collaboration networks are there in the area of financial management behaviour?

(4)Howfinancial management behaviour has evolved over the time?

The following article is divided into the sections listed below. It includes review of the literature, followed by a discussion on methodology and eventually data analysis. The fifth portion includes the discussion about the outcome of the study, while the final section presents the conclusion.

2. Research Methodology

This analysis offers both network and descriptive analysis based on the above and following the applications of the literary concepts.
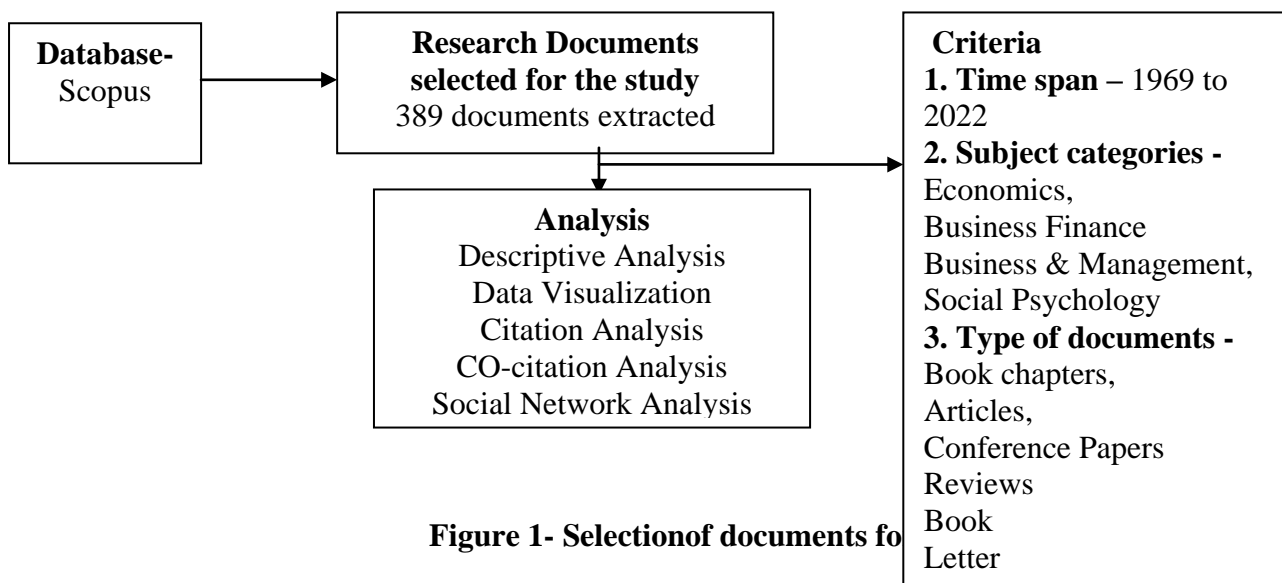

Figure 1- Selectionof documents fo

The descriptive analyses cover the whole literature, as well as the number of citations and other important information. In addition to descriptive analysis, network analysis used co-occurrence and bibliographic co-citations information of the publication. In addition to descriptive analysis, network analysis used co-occurrence and bibliographic co-citations information of the publication.

By : School of International Business and Entrepreneurship (SIBE)

2.1 Choosing a Database

In this study, Scopus database was employed to retrieve the related studies. It is the most significant and extensive database of research work (Ahmi&Mohd Nasir, 2019). The database provides information about publications, including the year, source type,subject, access type, source title, author name, document type, country,keywords, language and affiliation. In this study, to pinpoint the pertinent scholarly publications on the subject under consideration, we narrowed our search for web accessibility studies based on their titles.

2.2 Data revival

To fulfill the software need, data were retrieved in plain text format from Scopus.In accordance with the search criteria, certain documents were selected on July 28, 2022.Criteria for keyword search was (("Financial management behavior" OR "Personal financial management" OR "Financial behavior"))in the keyword list, abstract, or the title. The result of the search string reveals that 389 publications were published from 1969 to 2022. Out of 389 publications, 322 are Articles, 27 Book Chapters, 27 Conference Papers, 11 Reviews, one Book and one Letter. However, there is a lack of publication in the form of Editorial, Erratum, Retracted, Short Survey, and Data Paper.

2.3 Choosing a bibliometric tool

In this study, analysis of data was done with Biblioshiny. It is simple to use andis used by people who are not programmers.This software enables extensive bibliometric research, including data processing and visualization. As previously stated, most bibliometric analyses are complex because to identify the problems caused by the usage of these software tools under commercial licensing and necessitate substantial researchers training. However, Bibliometric is free software application developed forin depth scientific analysis. As a result, it is well appreciated and has become extremely important in the ever-evolving field for network and descriptive analysis.

By : School of International Business and Entrepreneurship (SIBE)

3. Data analysis & findings

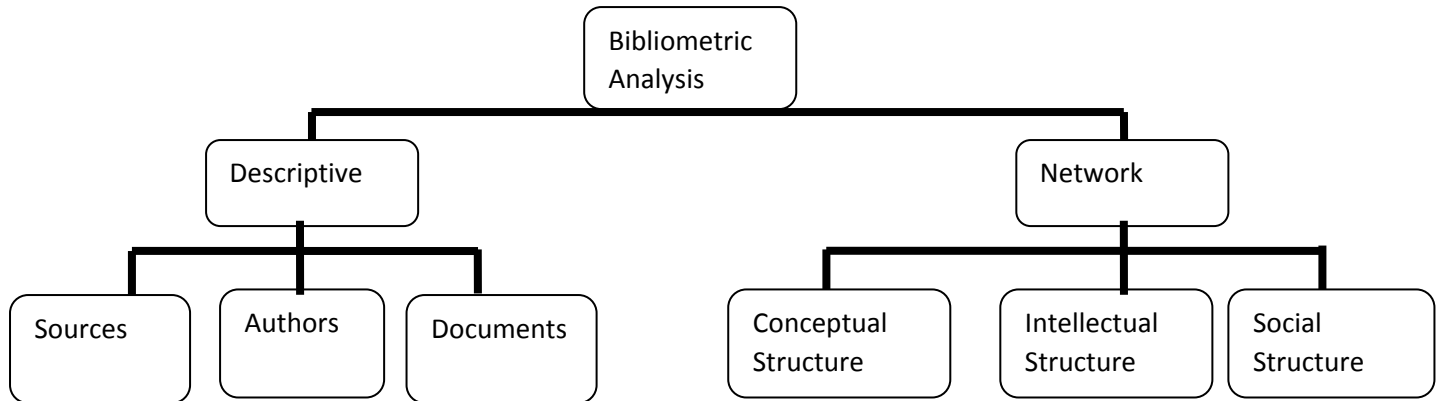This section was categorized into network and descriptive analysis which is depicted below.

Figure 2-Type of Analysis in the current study

3.1 Descriptive Analysis

3.1.1   Three field plot

In Sankey Plots (Figure 2) the"authors" are listed on the left part, the "keywords" are listed in the middle row, and the "sources" are listed on the right part.Each of the ten things represented major buzzwords such as **"**financial management, financial behaviour, financial education, and financial socialization", as well as the sources and prolific authors that created them. These notable authors and periodicals covered important sub-topics such as "financial knowledge," "financial attitude," "financial well being," and "financial literacy."

3.1.2 Sources

The top 20 scholarly journals in the field are shown in Figure 3, arranged by h-index. This statistic assesses the relative importance of the articles based on the quantity and impact of their citations. An "H-index" is a value that goes up to "n," whereas "n" is the number of scholarly journals published in "n" publications with at least "n" citations. An H-index score for a journal might be a better indicator of its quality or influence.
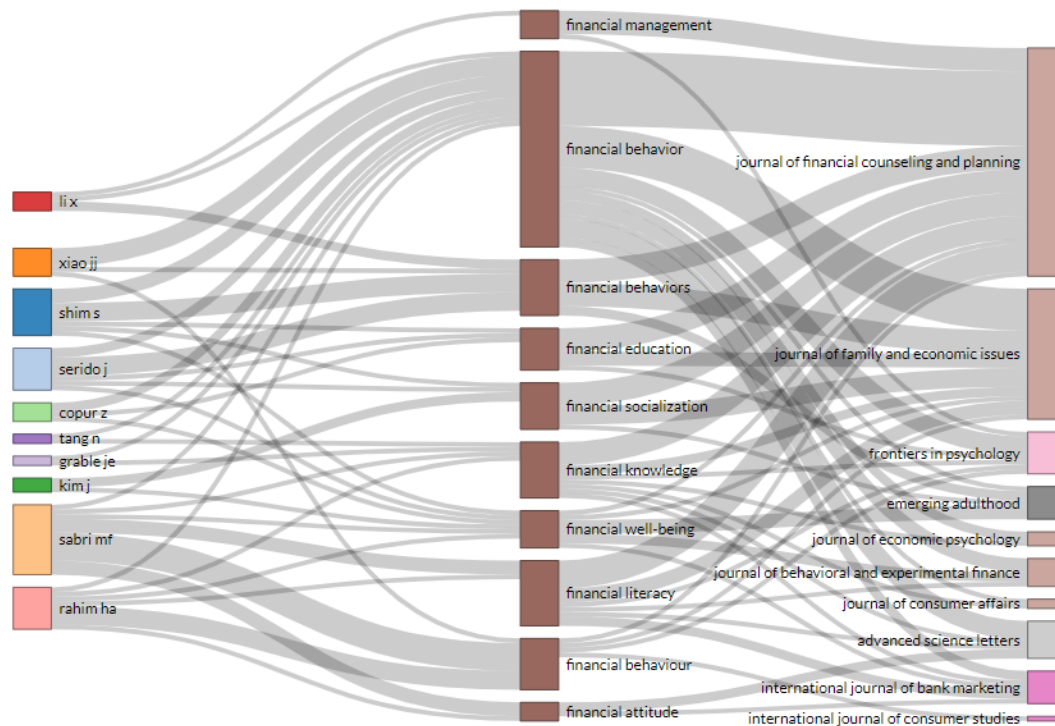
Figure 3-Three-field plot

3.1.3 Authors

The authors who have published the most in the field are SHIM S, SERIDO J, XIAO JJ, and SABRI MF, as seen in Figure 4. SHIM S. and SERIDO J. produced over ten articles in this field. XIAO JJ, SHIM S, and SERIDO J, on the other hand, were the top writers with the highest h index, as shown in figure 5. They have produced ground-breaking work. These publications are important in terms of possible future research in this topic.

3.1.4 Country Wise contribution

The literature in this field has been heavily influenced by a developed country. Table 2 detail show various nations have contributed to the field. Most studies in the field were from the "USA", with "India" coming second. The figure of publication in the field influences how many citations the articles receive. In the field, the USA obtained 3633 citations, which showsthe focus of the research in this country.When it comes to receiving citations, the USA performs best among the rest of the nations, which wassucceeded by the "Netherlands, Germany, and Sweden". However, UK and China have limited number of publications. This could represent the slow progress of developed and emerging nations toward quality research.
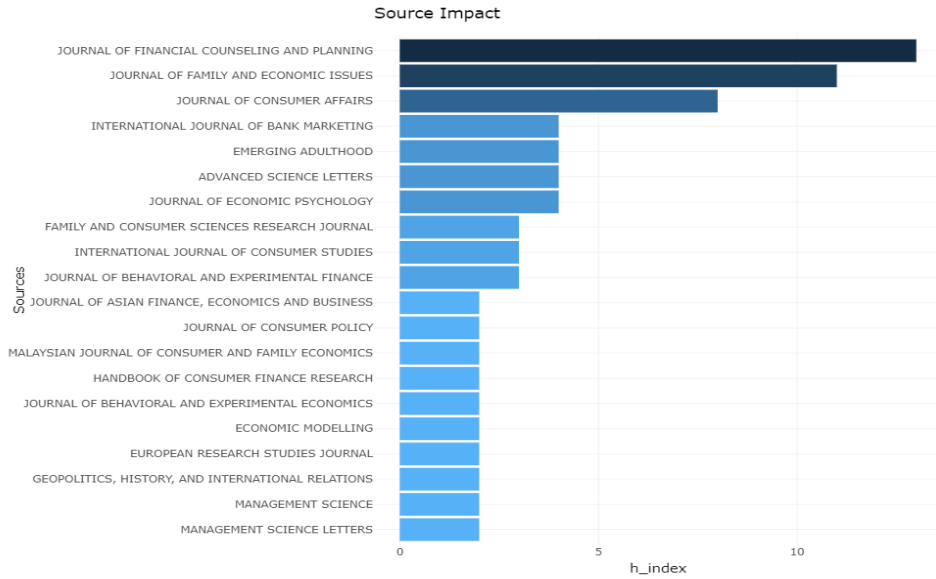
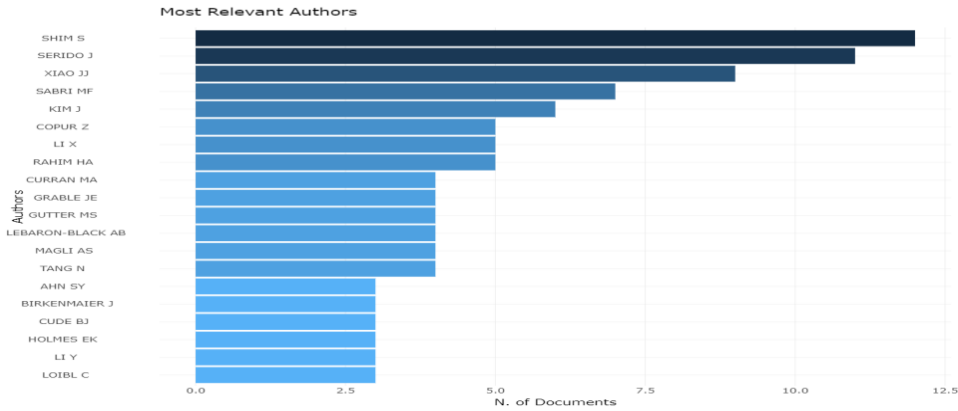**By : School of International Business and Entrepreneurship (SIBE)**

Figure 4-Top 20 impactful sources

Figure 5- Most relevant authors

Figure 6- Author impact

By : School of International Business and Entrepreneurship (SIBE)

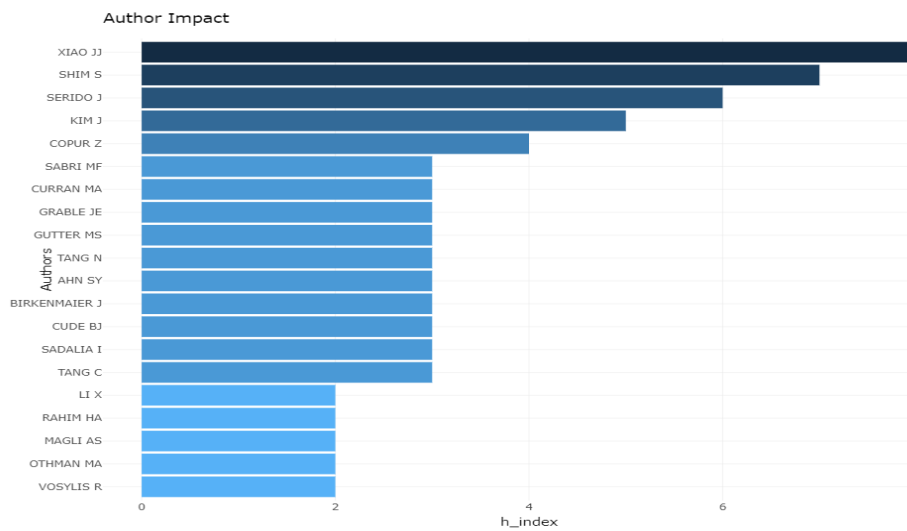### 3.1.5 Documents

In Figure 6, the top 20 articles are displayed. Each of these articles has over 100 references. With 694 citations, Fernandes et al. (2014) is the most referenced paper. This essay covered the significance of financial education and literacy on people's financial behaviour. These extensively cited papers are important sources of information on the topic.

3.1.6 Keywords

According to an examination of the frequency ofterminology employed in the publications, "financial behavior " occurred 104 times, following that comes "financial literacy, financial behavior, financial knowledge and financial education." Figure 7 depicts a word cloud, which is the magnitude of the word represents the occurrence of the terms in the document. It might stand in for the literary value of the word.Since 2017, there has been a sharp increase in the frequencies. This word cloud indicates that many determinants of financial management behaviour, including attitude and education, were examined in these studies.

Table 1- Top 10 countries:Citations and Productivity

Most Productive Countries		Most Cited Publications	
Country	Number of publications	Country	Number of Citations
USA	282	USA	3633
India	45	Netherlands	747
Indonesia	45	Germany	338
Malaysia	43	Sweden	163
UK	28	United Kingdom	133
China	25	Canada	100
Turkey	19	Malaysia	92
Netherlands	18	Australia	91
Spain	16	India	77
Germany	15	Indonesia	59

By : School of International Business and Entrepreneurship (SIBE)

3.1.7 Trend Topics

Figure 8 depicts the progression of the most popular topics on a 2D scale, with logarithmic occurrence values on the Y axis and publication years on the X axis. Major topics in 2016 turn aroundpersonal finance, financial behavior and financial management. In the years 2017 & 2018 the emphasis turned to economic and financial issues such as behavioral finance, household finance, savings, debt and financial socialization. Later, 2019 focuses on income and personal financial management. In contrast, various antecedents of financial management behavior like financial knowledge, financial education and financial literacy emerged as the dominant subjects in 2020. Topics such as locus of control, self control, financial inclusion & Covid 19 were highlighted in 2021, indicating interventions.

3.2 Network Analysis

Scientific Mapping can be conducted through intellectual structure, social structure and conceptual structure (Figure 2). Under this, statistical functions were performed.

3.2.1 Conceptual Structure

The relationships between idea, topic, and trend are illustrated through conceptual structure, which makes use of co-occurrence networks or co-occurrence analysis. It is the only method that utilises the content of research papers. Using Louvain's cluster algorithm with fifty nodes and with defaults choices of automatic design and normalisation by organisation, the keyword co-occurrence system illustrated in Figure 9 was built for the keyword analysis. A computer algorithm extracted the words designated as "Keyword Plus" from lists of references and document titles that frequently occured. They are preferred because the information in the papers is represented more fully and precisely (Sher and Garfield, 1993; Zhang et al., 2016).
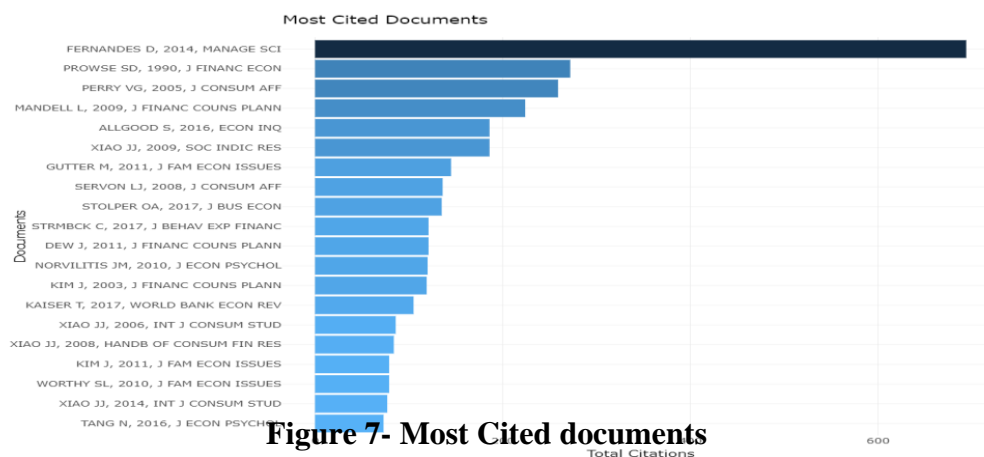

Figure 7- Most Cited documents

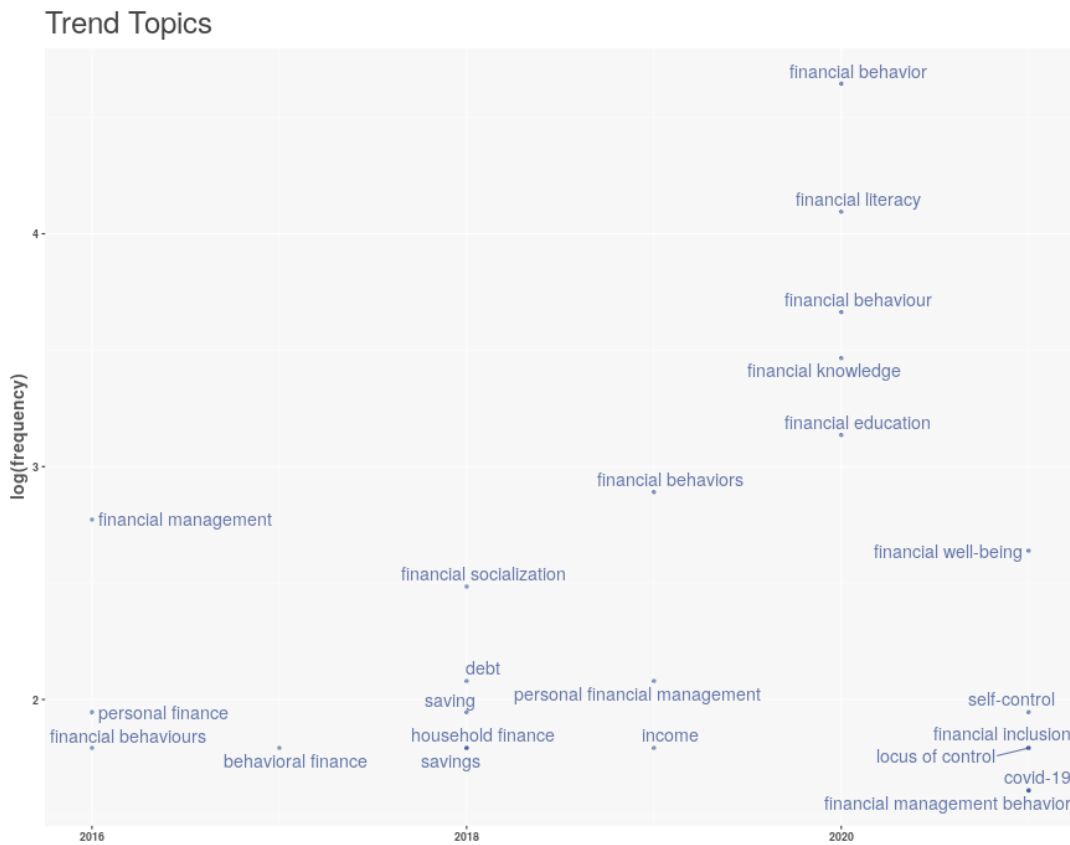**By : School of International Business and Entrepreneurship (SIBE)**

Figure 8- Word Dynamics

Figure 9: Trend topics

Figure 10- Co-occurrence analysis

By : School of International Business and Entrepreneurship (SIBE)
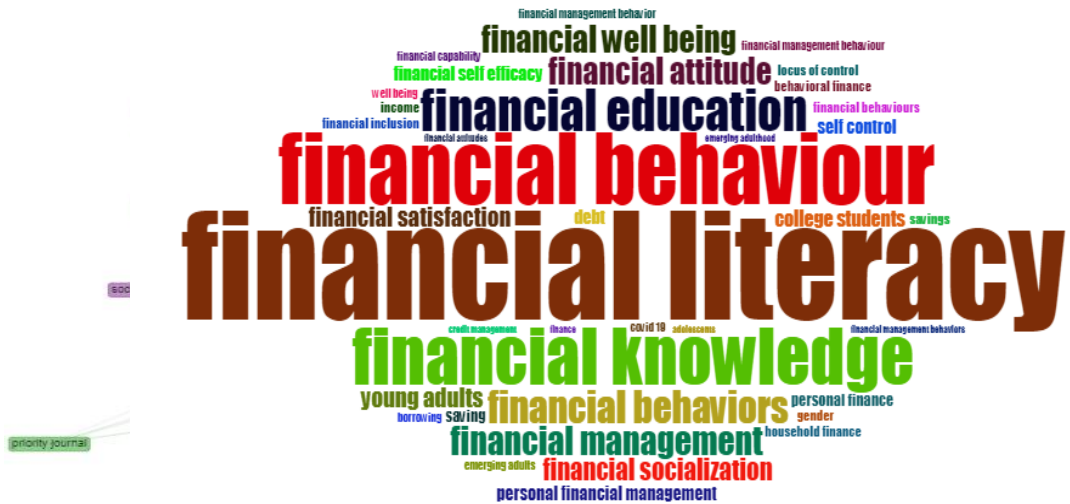
The data revealed four clusters, represented by the colours red, blue, green, and purple, as seen in Figure 12. The size of a node is relative to its occurrence, words characterise the apex, distance implies relatedness, and different colours signify different clusters. Finance rules the blue cluster, whereas motivation, impulsivity, and high-risk behaviour are highlighted in the red cluster. The male, female, and adult psychology sectors are supported by the purple cluster.

3.2.2   Thematic map

According to Cobbo et al. (2011), a thematic map plots typological themes on a two-dimensional plot. Four quadrants can be created from a two-dimensional graph of these themes, where the two dimensions are "centrality and density."On the map, each theme is represented by a bubble.On the graph, (Figure 10) the terms "female," "high risk behaviour," "finance," "adolescent," "financing," "human," "USA," and "financing" are displayed as bubbles. Female is the predominant theme in the top right quadrant. A fundamental subject is finance and financing, which may be seen in the lower right quadrant. High risk behaviour is a topic that is indicated in the upper left quadrant and is significant. The "USA" concept in the lower left quadrant is underdeveloped and of less significance. It also signifies emerging ties.

3.2.3   Intellectual Structure

It describes how different contribute towards the technical community by learning the association between various countries and authors. Geographic dispersion and cooperation were examined using networks of collaboration based on thirty different countries. From a geographic standpoint, the USA (figure 11) dominates the academic investigation and works with the majority of European nations as well as emerging countries. The USA has a strong collaboration link with China, Malaysia, the United Kingdom, Hong Kong, Turkey, and Sweden.

3.2.4   Social Network Analysis

SNA was employed to identify the relationships within the field of study. Nodes represent members of a social network, such as authors, organisations, or publishing sources, and a group of nodes demonstrates connected exchanges. Ties that link these domains indicate the dynamism of the network. Figure 12 depicts the collaboration of the institutes in conducting research on financial management behaviour. The University of Minnesota and the University of Arizona are on the top in collaboration with other institutes in conducting research on financial management behavior.

By : School of International Business and Entrepreneurship (SIBE)

Figure 11 Thematic map

Figure 12 Geographical Collaboration network

By : School of International Business and Entrepreneurship (SIBE)

4. Conclusion

The development of financial management practices between 1997 and 2022 is examined in this article. The primary contribution of the study is the compilation of the dispersed literature on the subject, with a focus on eminent authors, researchers, and sources. Biblioshiny (R package), a tool helpful for bibliometric analysis, was used because of its adaptability and user-friendliness. The analysis's data came from Scopus because it is a reliable and superior research source. The United States has done the most academic work in this area of research, followed by India and Indonesia, and its interactions in emerging markets are evolving from a fledgling to a simulative stage.

First objective aimed to be acquainted with the journals and authors that play a crucial role in the financial management behaviour theme. Figure 5 depicts most impactful sources. The figure uncovered that "as Journal of Financial Counseling and Planning, Journal of Family and Economic Issues, and Journal of Consumer Affairs" tops the list with highest h-index. The "H-index" refers to the highest number up to "n," where "n" is the number of journals that have published "n" articles with minimum "n" citations. Moreover, Figure 6 demonstrates the authors have the most number of studies in the area. SHIMS S, SERIDO J have contributed over ten articles in this discipline.

Second objective intended to understand the foundation of conceptual and intellectual structure. The conceptual structure can be demonstrated using co-occurrence analysis. Figure 9 was created using 50 nodes algorithm. Finance dominates the blue cluster, whereas high-risk behaviour, impulsivity, and motivation dominate the red cluster. Adult psychology, male psychology, and female psychology are all promoted by the purple cluster. It helps in understanding the association between the topic and theme. It also reveals major shift from the economic factors like income, credit and insurance to behavioral and psychological factors like traits, thoughts, acquisitiveness and other analogous behavioral characteristics in financial management behavior. In addition to this, the study focuses on understanding intellectual structure. It shows how different nations and academics contribute to the technical community by discovering their associations. It discloses that the United States has close ties with China, Malaysia, the United Kingdom, Hong Kong, Turkey, and Sweden.

The third objective focuses on recognizing the collaboration map in the area of financial management behaviour. To achieve this, the study conducted Geographical collaboration network. This network shows the interconnections of different universities within the research

463

domain. The analysis revealed that the University of Minnesota and the University of Arizona dominates the list of collaboration with other institutes in conducting research on financial management behavior.

Lastly, the study focuses on the most recently addressed topics in the idea of financial management behavior. It can be displayed through trend topics (Figure 8). It shows that the topic has evolved from "personal finance management behavior, financial management" in 2018, "household finance and financial socialization" in 2019 to "financial well being, financial literacy topics, locus of control and financial inclusion in 2020".

Thus, Bibliometric analysis investigates research prospects to examine trends for publications with regards to authorship, citations, sources, and nations, and advancement. Financial advisers, financial planners, financial and banking service business specialists would be able to comprehend the rising challenges. This will allow them to improve their knowledge of their respective disciplines.This study's provides significant insights on latest developments, which can assist policymakers in developing financial education programmes, policy or imposition strategies.

References

1. Cobo, M., Lopez-Herrera, A., Herrera-Viedma, E. and Herrera, F. (2011), "An approach for detecting, quantifying, and visualizing the evolution of a research field: a practical application to the fuzzy sets theory field", Journal of Informetrics, Vol. 5 No. 1, pp. 146-166.

2. Consumer Financial Protection Bureau. (2015). Financial Well-Being: The Goal Of Financial Education. Available on: consumerfinance.gov/dataresearch/research-reports/financial-well-being.

3. Garfield, E. and Sher, I. (1993), "KeyWords Plus —algorithmic derivative indexing", Journal of the American Society for Information Science, Vol. 44 No. 5, pp. 298-299, Association for Information Science and Technology.

4. Kempson, E., Collard, S., & Moore, N. (2006). Measuring financial capability: An exploratory study (Report No. 37). Financial Services Authority. http://www.bristol.ac.uk/geography/research/pfrc/themes/fincap/measuringfincap.html

5. Owusu, G. M. Y., Bekoe, R. A., Arthur, M., & Koomson, T. A. A. (2021). Antecedents and consequences of compulsive buying behaviour: the moderating effect of financial management. Journal of Business and Socio-economic Development.

By : School of International Business and Entrepreneurship (SIBE)

6. Singh, S. and Dhir, S. (2019), "Structured review using TCCM and bibliometric analysis of international cause-related marketing, social marketing, and innovation of the firm", International Review on Public and Nonprofit Marketing, Vol. 16 Nos 2-4, pp. 335-347.

7. Xiao, J.J., Chen, C. and Chen, F. (2014), "Consumer financial capability and financial satisfaction", Social Indicators Research, Vol. 118 No. 1, pp. 415-432.

By : School of International Business and Entrepreneurship (SIBE)