Financial Inclusion-A Bibliometric Analysis

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ABSTRACT

The study aims to collate and represent the global scientific research papers on the financial inclusion of women to better understand the gender gap that exists in the initiatives of financial inclusion. This research work consolidates the scattered literature in the field, by reviewing the 1166 studies from Scopus and Web of Science databases. The papers extracted are synchronized and analysed through Biblioshiny application of R-studio. Bibliometric methods like publication trends, citation analysis, word mapping, trend analysis, and thematic mapping have been used. The study gives an insight on the current themes of research and the emerging research trends. The emerging trends in this study offer opportunities to researchers and policymakers to understand the gender-based gaps in financial system and designing their future work.

Keywords: *Biblioshiny, Bibliometric, Financial Inclusion, Gender gap, R-studio.*

INTRODUCTION

Financial inclusion has been discussed and researched across the world due to its implications for economic growth and social welfare. Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost (The Committee on Financial Inclusion, Chairman: Dr. C. Rangarajan). "Financial

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inclusion brings unbanked and under-banked people in the financial system to provide them the opportunity to access the financial services in order to create economic growth and leads to empowerment opportunities." It provides poor households with the opportunity to save for a better future. "The focus of financial inclusion is for people to absorb the emergencies that might affect their lives; enable everyone to access credit and make investments." "The economies with deeper financial inclusion tend to grow faster thus, financial inclusion is important for faster inclusive growth."

In India, *Jan Dhan Yojana*, was introduced to include economically weaker sections in the financial ecosystem of the country. By January 2022, owing to the *Jan Dhan Yojana*, which was launched more than 7 years back, India has Rs.1.5 lakh crore bank accounts (PTI, 2022) and in 2014, 700 million adults became first-time account holders during 2011–14, but the G20 Summit, 2013 has highlighted that financial inclusion is yet to permeate a vast majority of the population. This financial inclusion, when broken down into smaller segments, especially financial inclusion of gender, the observations are dismal.

"There is no tool for development more effective than women empowerment." —Mr Kofi Annan

"In a world where discussions are centred around feminism, and concerns for women empowerment are rising, financial inclusion shows a wide gap and shows little signs of being healed. Globally, 47% of women own or co-own a bank account, while 55% of men do (Gender and Development Unit, 2013)." The empirical question is how far this gender gap in financial inclusion manifests itself in emerging economies, where it has remained steady at 9%. Hence, the bibliometric analysis of women's financial inclusion is a unique study. First, to the best of the authors' knowledge, to date, no existing review study in the area of gender-based financial inclusion has ever used bibliometric analysis to evaluate the progress of the field and answers the above-raised RQs. The authors have identified the gaps in major clusters of the field and offered direction of future work. As with the bibliometric analysis, the study consolidates the scattered literature in the field, by reviewing the 1166 studies from Scopus and Web of Science databases. The thematic analysis focuses on explaining the research in terms of clusters and may provide a direction to not only the academicians and the businesses but also the policy makers.

RESEARCH METHODS

The present study aims to bring clarity and enrich the literature by relying on bibliometric analysis using Biblioshiny software to identify the major themes in the field of financial

inclusion of women. The relevant review of the literature was done as a pre-requisite for performing Bibliometric analysis. “To ensure transparent and comprehensive coverage of the literature, this study used a systematic literature review (SLR) methodology.” “The SLR methodology was chosen because of its wider acceptance in bibliometric reviews.”

The following subsections explain the research methods used in detail.

1. Review Objectives

Setting a research objective is the foremost step for conducting meaningful research. “The wider objective of the research paper is to collate and represent the global scientific research papers on the financial inclusion of women. To clarify, the work done in the field, the study is broken down into smaller and fundamental segments.” The Research Question (RQ) and Research Objective (RO) are presented below:

RQ1: What is the current publication trend in the financial inclusion of women?

RO1: To answer the research question, the objective was to figure out which journal published the most work on financial inclusion of women, who are the most contributing authors and their collaborations, and which are the countries that lead in research in the field.

RQ 2: Which are the most significant studies contributing to the field of financial inclusion of women?

RO2: To address this research question, the research objective is to identify the most relevant studies in terms of global citation and the cited references (local).

RQ3: What is the orientation of research, and which are the areas that need more focus?

RO3: The research question to find out what has been covered thus far and what requires more focus are done through Thematic mapping and Trending topics.

2. Search Strategy

The desired contribution of the research paper can only be achieved if the search strategy is well-defined and focused on the objectives. The study has drawn upon the literature on the Financial Inclusion of women from the bibliometric databases Scopus and the Web of science. “These two databases are considered the two main academic literature collections” and are considered substantial for bibliometric analysis as the research papers

from the databases represent the quality work done in any area of research and have a wide coverage. To arrive at meaningful references, the study used the keywords "Women" OR "Female" AND

"Financial Inclusion" OR "Financial Empowerment" with the help of Boolean operators, all possible research papers were searched for.

FLOW OF RESEARCH

Identification, screening, and selection or final Databases and inclusion and exclusion criteria

Step 1 Identification of Relevant Researchers conducted in the areas of Women and Financial Inclusion N=13068+365	• Search on Scopus and Web of Science Repository • Search Key-"FINANCIAL INCLUSION" OR "FINANCIAL EMPOWERMENT" AND "WOMEN" OR "FEMALE"
Step 2 Documents after applying Subject Area, Publication Stage, Document Type and Language filters	N=1165
Step 3 Bibliometric Analysis using Biblioshiny	Unit of Analysis-Document, Sources, Authors, Affiliations and Countries

Figure 1: Flow of Research

Figure1, shows the flow of research i.e., retrieving the data from both Scopus and Web of Science databases and it was done on August 20, 2022. 1165 research records were retrieved from Scopus and Web of science and the following criteria for inclusion and exclusion was undertaken any overlapping literature i.e., research paper in both the Scopus and Web of Science, has been sorted and included once.

The research papers in the English language have been considered for the purpose of this Bibliometric research.

"The inclusion criteria used was research papers published in peer-reviewed journals and conference papers have been considered." For the purpose of this study book chapters

have also been included in the analysis.

The present study focuses on papers published in Business, Management, Psychology, Economics and Sociology.

These criteria resulted in a total of 13,433 papers combined (Scopus & Web of Science). All the authors focus on the title and the abstract to thoroughly perform the initial screening of the papers retrieved. All the studies that did not fit the exact criteria of financial inclusion of women were excluded, resulting in a total of 1165 studies. The last step to extract the final list was to thoroughly examine the full text of the shortlisted research papers, and removal of the duplicate documents which resulted in the exclusion of another 19 research studies.

RESEARCH METHODOLOGY

Bibliometry is gaining traction in the field of research and many open-source tools such as Bib Excel, Pajek, Citespace and HistCite are available for bibliometric performance analysis. "The study has used Bibliometrix, R (version 4.2.1), since it has the capability to handle more than one database and in case of this study, we are working with Scopus and the Web of Science**."**

DATA ANALYSIS

1. Table 1 and Figure 2, explains the RQ1 What is the current publication trend in the financial inclusion of women? And also, the criteria used for extracting the data.

Table 1: Main Information about the Data

Description	**Results**
Timespan	1990:2022
Sources (Journals, Books, etc)	502
Documents	1165
Annual Growth Rate %	16.14
Document Average Age	5.69
Average citations per doc	16.75
References	11789
DOCUMENT CONTENTS	

Keywords Plus (ID)	2510
Author's Keywords (DE)	3445
AUTHORS	
Authors	2654
Authors of single-authored docs	263
AUTHORS COLLABORATION	
Single-authored docs	279
Co-Authors per Doc	2.61
International co-authorships %	23.18
DOCUMENT TYPES	
article	1061
article; book chapter	2
article; early access	54
article; proceedings paper	20
book chapter	22
conference paper	6

The combined data on Female Financial Inclusion helps to understand the publication trends, the authors contribution and the country's leading in on Female Financial Inclusion.

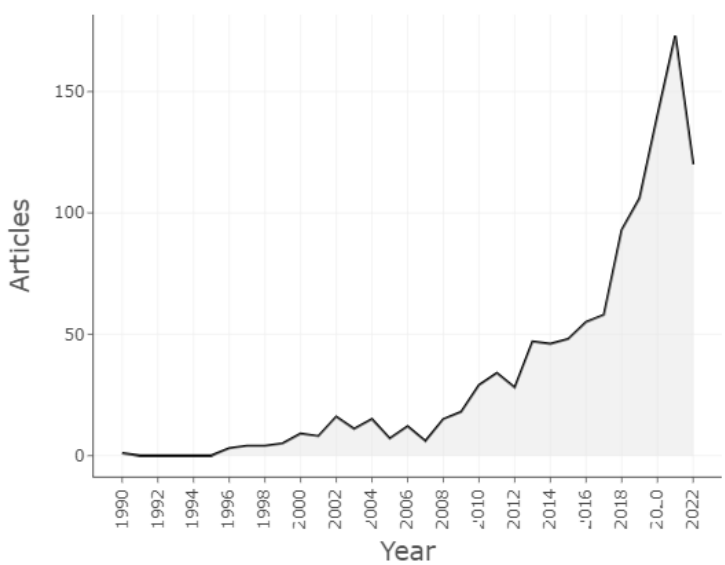


Figure 2: Publications Per Year

The Fig-2 illustrates that the studies on financial inclusion of women have been on since 1990, with some rise in 2002. The databases searched show no impactful publications between 1991-95. The Figure shows the graph of the research papers published in the field from 1990 to August 2022 in the fields of economics, psychology, sociology and business. The consistent rise in interest in the field of research is conspicuous from 2008; with the sharpest increase from 2018(93) to 2021(173). The research in the field is on the upward trend due to its immense importance across the globe, the downward scenario in the graph is attributed to the fact that only eight months into 2022 have yielded 120 research papers (the date of data retrieval 26/08/22) and with the publications for the next four months from September 2022 to December 2022, the research body would be enriched further.

2. RQ 2: Which are the most significant studies contributing to the field of financial inclusion of women?

2.1 Leading Journals

Table-2 lists the journals which lead the contribution in the field of financial inclusion of women. Amongst these, Archives Of Sexual Behavior (52), World Development (27), Journal of Business Research (20) and Journal of Business Ethics (17) are the most productive. Archives of Sexual Behavior and World Development also are the most impactful sources (Fig-2) with H-Index of 21 and 16 respectively.

Table 2: Most Relevant Sources

SOURCES	ARTICLES
Archives Of Sexual Behavior	52
World Development	27
Journal Of Business Research	20
Journal Of Business Ethics	17
Applied Economics	16
Gender In Management	16
Substance Use & Misuse	16
Social Indicators Research	15
Applied Economics Letters	14
Gender Work and Organization	13

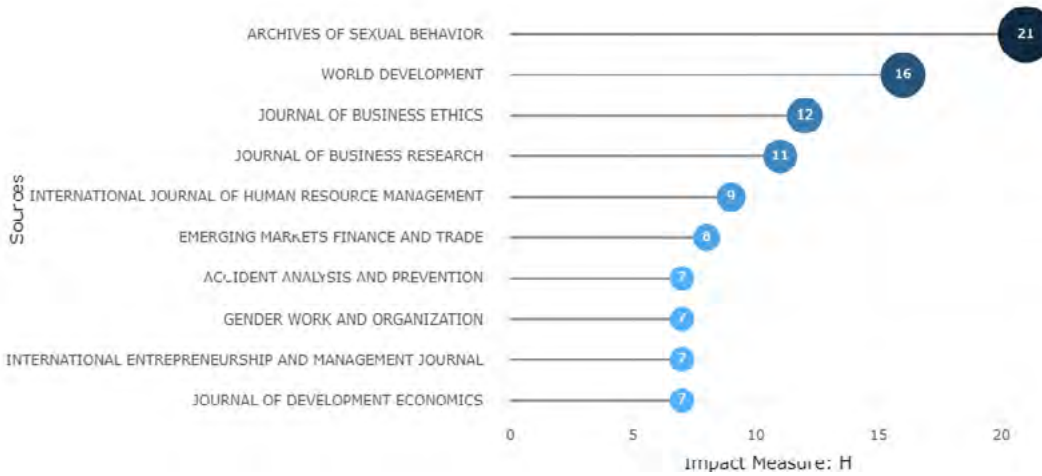


Figure-3 Source Local Impact (H-Index)

2.2 Contributing Authors

Fig-4 and Table 3 gives a detailed information of the 10 most relevant authors In terms of published work X. Wang from China is the most relevant author with 9 publications out of which 5 were published in 2021 & 2022. S.Ghosh from Qatar has 7 publications.

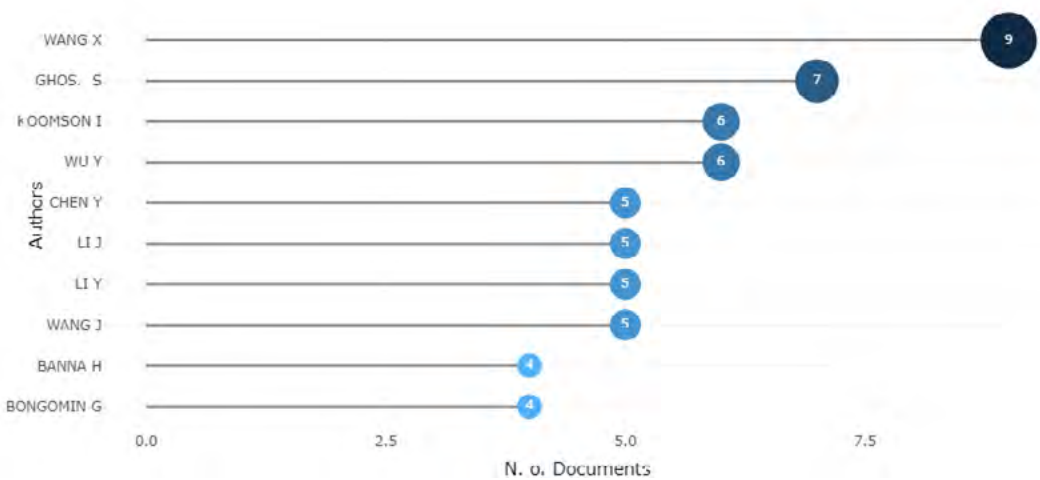


Figure 4: Most Relevant Authors

Table-3 TOP 10 CONTRIBUTING AUTHORS

AUTHOR	H-FACTOR	Total Citations (TC)	No. Of Publications (NP)	Publication Year START (PY)
WANG X	7	146	8	2016
KOOMSON I	5	157	5	2020
CHEN J	4	124	4	2014
KOROTAYEV A	4	37	4	2003
NTIM C	4	241	4	2019
TAGHIZADEH-HESARY F	4	172	4	2019
WELLALAGE N	4	29	4	2020
ZHOU Y	4	25	4	2012
ALI M 3	3	28	3	2020
BONGOMIN G	3	24	4	2018

The authors in the area are categorized in the Table 3 with their statistics and are in the descending order of their h index. The total citations (TC), number of publications (NP) and year of first publication (PY-start) are also shown. Wang X has the highest h-index and he pioneered the impactful research in the field in 2016. In the list of most prolific authors, Koomsoon is the second, whose research started in 2020 and has high citations (157). However, NTIM C (241) and Taghizadeh-Hesary F (172) lead in the maximum citations**.**

2.3 COUNTRY IMPACT

COUNTRY	PUBLICATIONS
USA	535
CHINA	225
UK	204
AUSTRALIA	110
INDIA	94
SPAIN	71
GERMANY	63

CANADA	61
ITALY	55
JAPAN	53

Table-4 Country Scientific Production (TOP 10)

Table-4 shows that research in the field of Financial Inclusion of women has got the maximum traction from USA (535), which is more than double the number of publications from the second in number i.e. China (225). The UK is the close third with around 204 publications in the field. Italy (53) and Japan (51) have the lowest publication in the top 10 countries shortlisted from the Scopus and Web of Science databases.

Figure 4 indicates globally cited research work in this field. Rose's work "Does female board representation influence firm performance? The Danish evidence" published in 2007, is the most cited followed by Franklin et al.,work (2016) with a total citation per year of 36.29.

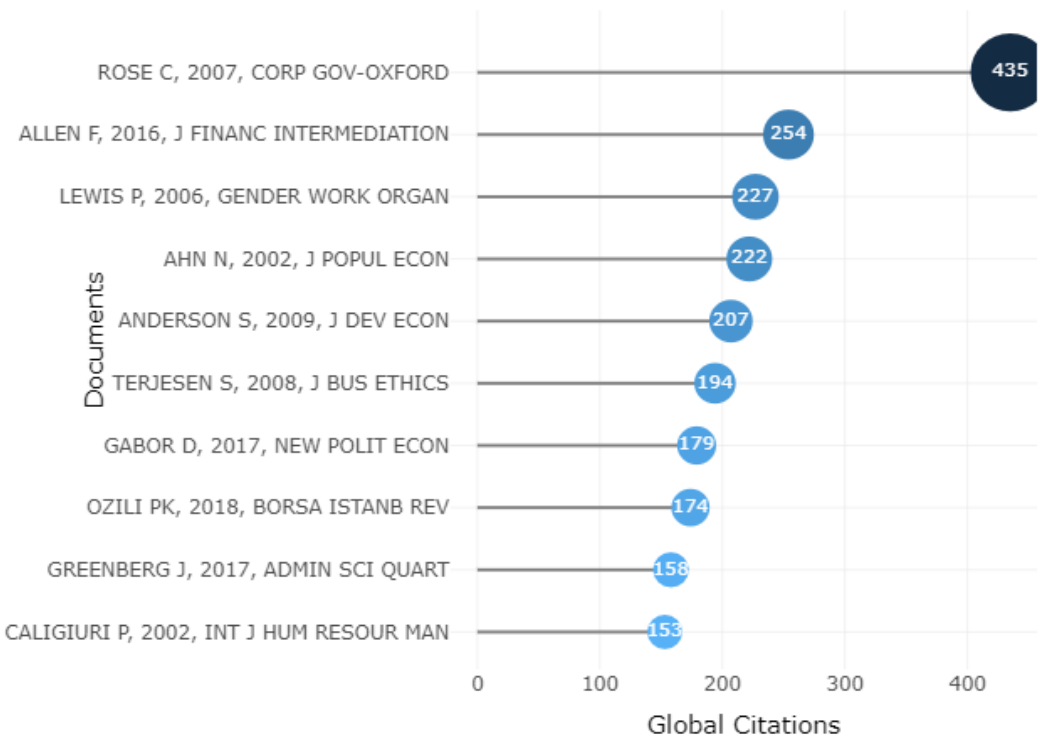


Figure-5 Papers by Global Citation (TOP 10)

3. This section addresses RQ3: What is the orientation of research, and which are the areas that need more focus?

3.1 Thematic Impact

"A thematic area is a set of themes that have evolved across different sub periods." Research paper themes are constantly evolving, especially when comparing recently released papers to publications that have been published for a long time. In the picture above, the theme's development is depicted. Fig-7 highlights change in themes in the subperiod 2019-2022 wherein female labour force participation, financial inclusion and micro finance are the most discussed terms (Author keywords) as against female sexuality, fertility, female sex workers in the subperiod 1990-2018 thereby indicating a shift in the orientation of research on females.

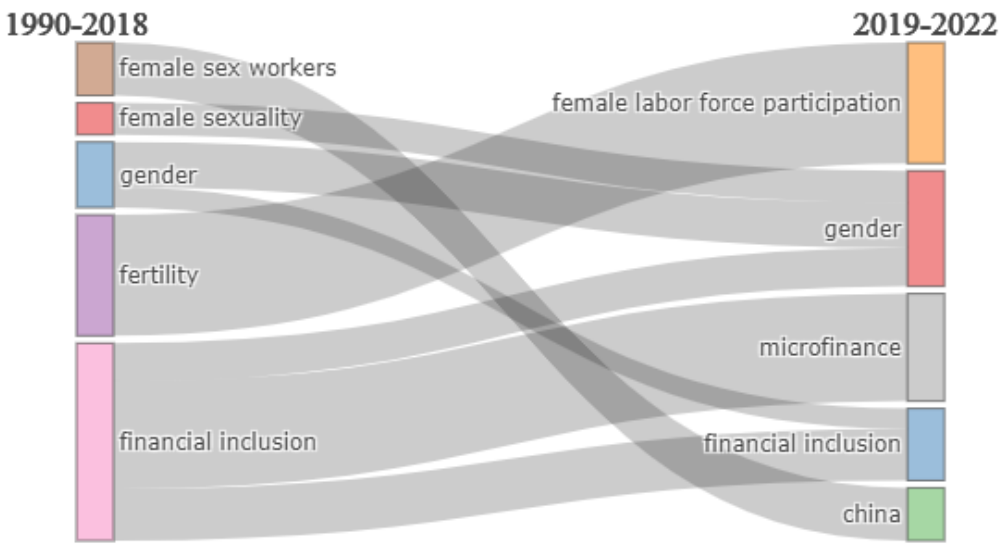


Figure-6 Thematic Evolution

3.2 Trending Topics Time span (2012-2022)

The Figure 7 is an indicator of how the topics within the macro topic of Financial Inclusion of Women have been shaping up. Going backward, the "digital" aspect of financial inclusion of women has been gaining ground, since the pandemic made way for the digital revolution and hence the significant inclusion in the research in this field. Financial inclusion of women is a great contributor to women's empowerment and so the discussions have been focussed around that in 2022. The basic terms around which the discussion started in 2012-13 is female professionals (managers, athletes); education and female sexuality. In 2017, female

empowerment started getting attention; in 2019 its shape in India. Overall, a plethora of all related literature has been researched to give some concrete dimension to Financial Inclusion of women.

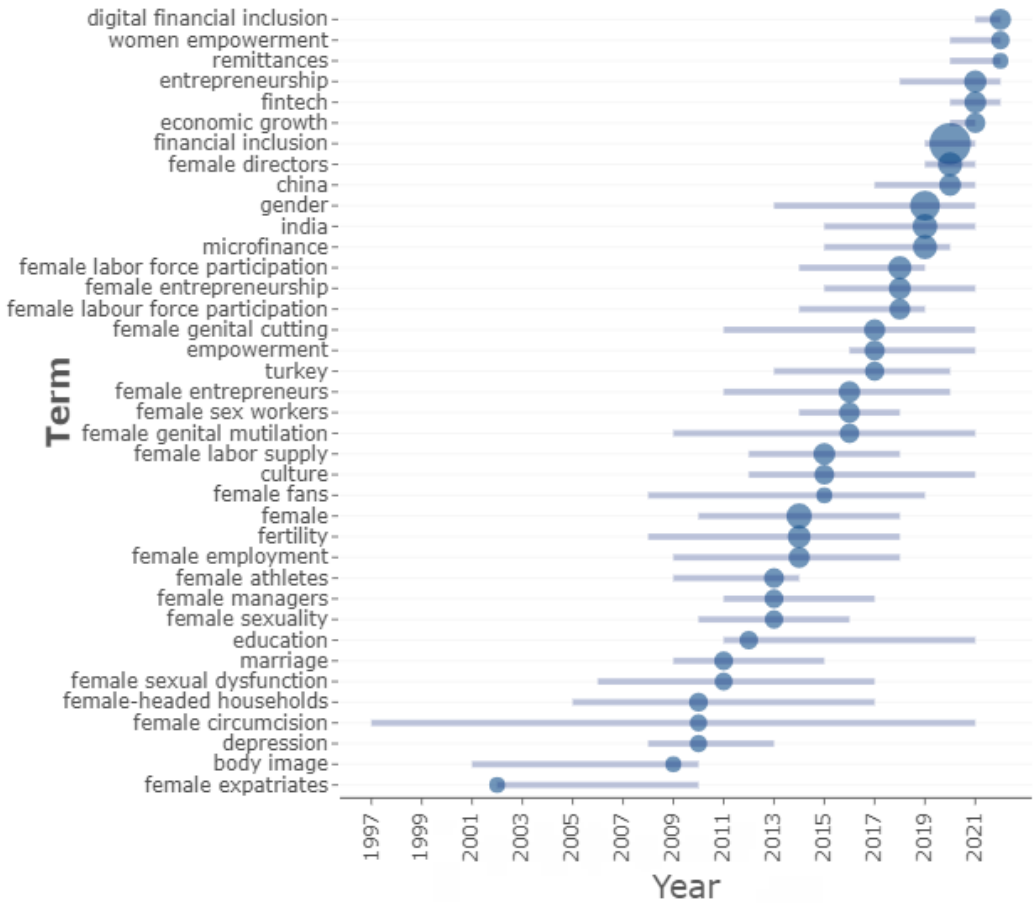


Figure-7 Trend Topics



Figure 8-Word Cloud

The word cloud in the Fig-8, represents the focus of research in the field of Financial inclusion of women from the perspective of economics, business, psychology and sociology. All the words in the cloud viz., female, female directors, entrepreneurs, employment, digital financial inclusion, and financial literacy.

3.3 Thematic Evolution

The Thematic map in Fig-9 discusses evolution of various themes over a period. "A thematic map allows four typologies of themes to be defined according to the quadrant in which they are placed." The upper-right quadrant contains the motor themes. They stand out for their high density and centrality. This shows that they are sophisticated and important to the topic of study. Themes in this quadrant are digital financial inclusion, China, female sex workers. These are well researched themes hence, appropriate for systematic literature review and bibliometric analysis.

The lower-right quadrant contains basic themes which includes fundamental and transversal topics. They are characterised by high centrality and low density. These topics are crucial to a study field and are connected to bigger challenges that span the discipline's several research subfields. Thus, financial inclusion, India and microfinance are crucial topics not adequately researched. In fact, major research on these themes started since 2020.

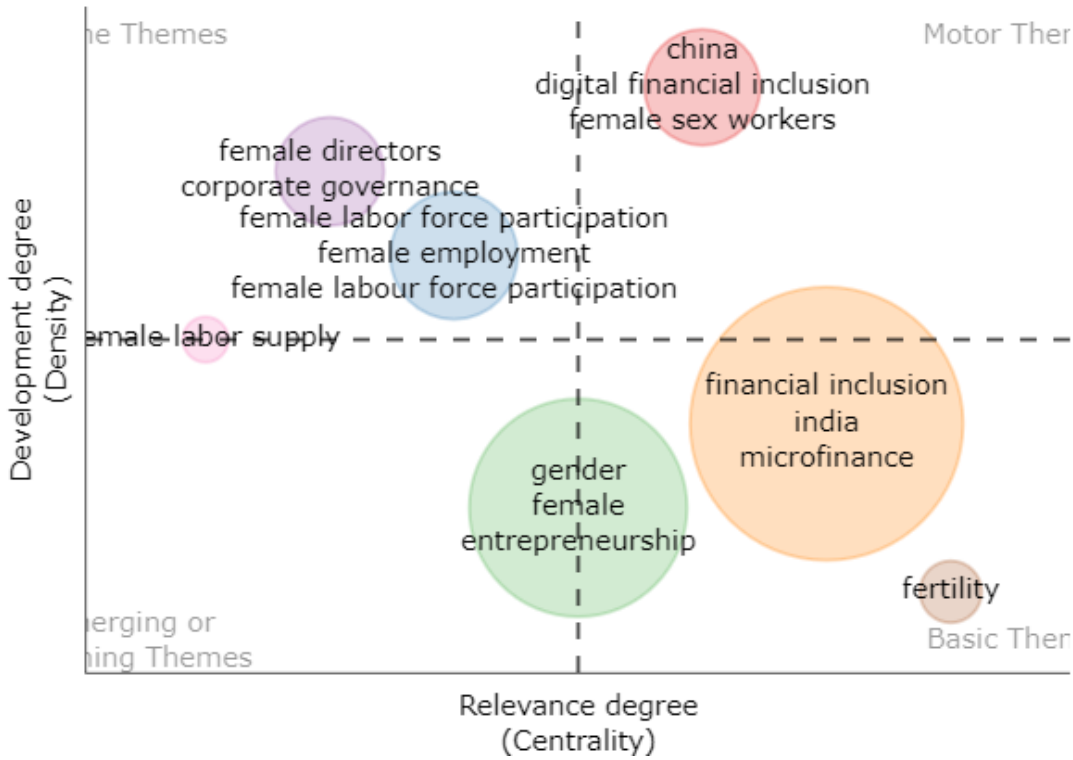


Figure-9 Thematic Map

The topics in the lower-left quadrant are those that are emerging or waning. Due to their low centrality and density, they are peri-urban and undeveloped. Thus, themes like female, gender and entrepreneurship hold potential for future research.

The upper-left quadrant contains the isolated and highly developed motifs, sometimes known as niche themes. Due to their highly developed internal linkages (high density), but negligible external ties, they are only moderately relevant for the field (low centrality).

DISCUSSION AND FUTURE IMPLICATIONS OF THE STUDY

The study attempts to contribute to the body of literature by collating the published research in the field of Financial Inclusion of women. The authors have tried to collate the papers on a broader keyword, in an effort to not miss any related study as well. The papers extracted from Scopus and Web of Science were synchronized and were analyzed through Biblioshiny. To the best of our knowledge, the bibliometric analysis of this field has not been

explored yet. As with other bibliometric studies, this study provides an indication for similar related studies that can be undertaken in the future. The progress in most of the progress the world was making in any field including Financial Inclusion of women was paused due to the pandemic, The new dimension that has been added and explored is an indirect result of the pandemic viz., digital financial inclusion. Everything took a digital modus operandi and so did financial services (the transactions, the remittances) and the digital literacy was forced upon the population of the world. The gender disparity on digital financial inclusion forms an integral part of the research body and paves way for the regional study of the phenomena. The literature in the field is led by the US, China and the UK, the other nations including India lag behind in women empowerment and financial independence and inclusion will go a long way in promoting the cause. The studies till date focus around the female literacy, micro-finance, female entrepreneurship, female labour, etc. These indicators are established as included in the strong databases and the exploration of these with respect to these sub themes can enrich the field further.

The field is not event-based and hence a continuum in research can be maintained to gauge the path of where the particular society is with respect to the financial inclusion and where they should be in the coming years.

CONCLUSION

Literature reviews help to consolidate and advance theory and provide insights to address scholars in their efforts. “Bibliometric analyses reduce the intrinsic subjectivity of narrative and systematic reviews.” This study considers the literature surrounding the financial inclusion of women from 1990-2022 and performed a Bibliometric analysis. The data was extracted from Scopus and Web of Science citation databases in August, 2022. The world is consistently talking about women’s empowerment but it is time to take cognizance of the real situation, i.e., the financial freedom or financial empowerment of women. The discussion has to be in the continuum, so that the success in one nation or area, can inspire or pay way for the others to emulate. There is a global yearning for equality, which would not be possible without the inclusion of women in the formal financial structure. The current study endeavours to contribute to the literature in a variety of ways, and several methodological limitations should be highlighted. First, the current study suffers from publication bias because grey and unpublished literature were not included in this review. Second, only literature in English is included; thus, future studies may look at literature in other languages. Although bibliometric analysis is an objective and reproducible method of literary analysis, a qualitative method provides a more in-depth understanding of the phenomenon. As a result, future studies may conduct different types of systematic literature reviews.

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