

Women Entrepreneurship and Financial Inclusion: A Bibliometric and Statistical Analysis of Global Research Trends

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ABSTRACT

Women entrepreneurship and financial inclusion are now entangled fields of research considering the relevance of women's access to finance, financial literacy, digital financial services and entrepreneurial opportunities. In this study, the research landscape on women entrepreneurship and financial inclusion is analysed by integrated bibliometric and statistical approach globally. Publication growth, citation, key research contributors, geographical distribution, thematic clusters and collaboration structures are examined. Additionally, statistical analyses are used to explore how the impact of research can be affected by characteristics of collaboration, differences in research impact across digital-orientation groups and thematic clusters, and associations between thematic clusters and international collaboration. The relationship of women entrepreneurship and selected dimensions of financial inclusion are also examined. Results show that the academia is interested in the field and that FinTech and Digital Finance is a high impact theme. There are significant differences in the impact of research according to collaboration characteristics and the impact of digitally oriented research is significantly higher. There are also considerable differences in impact of research across thematic clusters. But, at the same time, no significant difference is found in international collaboration according to thematic specialization and in the final regression model, the selected dimensions do not significantly explain the financial inclusion intensity. The study offers a systematic insight into the growth, thinking and initial orientations of research in the world in this field.

Keywords: *Women Entrepreneurship; Financial Inclusion; Financial Literacy; Digital Financial Inclusion; FinTech; Bibliometric Analysis; Research impact; International Collaboration.*

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Women entrepreneurship is becoming a significant factor in the development of economy, employment generation, welfare of the households and inclusive growth. Women's business is not just about income generation but also about other aspects of economic participation and empowerment. But women's access to financial capital, formal financial institutions, financial knowledge and financial products are related to their capacity to start, build and grow enterprises. The gender aspect of entrepreneurship therefore cannot be divorced from the issue of access to finance. Studies indicated that women entrepreneurs might face unique problems

related to business finance such as difference in the lending practices, collateral, perceived risks and access to entrepreneurial capital etc. (Orser et al., 2006; Carter et al., 2007; Malmström et al., 2024).

Financial inclusion has thus emerged as a key policy and research issue related to women's economic participation. It is a general term that refers to access to and effective uses of suitable financial services, such as banking, credit, savings, payments and any other formal financial services. Financial inclusion has the potential to alleviate financial constraints and enhance the capacity of individuals and enterprises in participating in the economic activity. The Global Findex evidence highlights the critical role of formal financial accounts, digital payments, and technology in driving financial inclusion (Demirgüç-Kunt et al., 2022). This can be critical for women entrepreneurs, as financial constraints can directly impact enterprise creation, investment and business sustainability.

1.2 Women Entrepreneurship and Access to Finance

There has been much research conducted on the correlation of women entrepreneurship and finance. Despite the fact that women's entrepreneurship is playing a vital role in the country's entrepreneurial activity, women entrepreneurs have been facing problems in getting proper financial capital. Orser et al. (2006) identified important gender differences in access to financial capital and Coleman (2000) took the aspect of access to capital and credit terms. Previous evidence also found a gender perception in lending decisions indicating that the results of lending can be affected by the way lenders assess women entrepreneurs (Buttner & Rosen, 1988; Fay & Williams, 1993).

It's not only the traditional bank loans, it is also the funding of the entrepreneurs and the investments. Studies on angel investing and entrepreneurs' financing suggest that gender may affect external financing availability and assessment (Becker-Blease & Sohl, 2007; Harrison & Mason, 2007). Eddleston et al. (2016) also show that gender and venture characteristics are important when it comes to financing decisions. Even more recent evidence shows that there are gender gaps in access to finance, which is still relevant in the face of all the changes in financial markets and entrepreneurial ecosystems (Aernoudt & De San José, 2020; Dutta, 2023; Malmström et al., 2024).

1.3 Financial Inclusion and Women's Economic Empowerment

Financial inclusion is not only about physical access to financial institutions, but now involves financial capability and digital access and use of financial services. Financial literacy is especially applicable as knowledge and financial skills affect individuals' choices of financial products, their resource management and financial decision making. Financial literacy is stressed as an aspect of financial capability by Atkinson and Messy (2012); Cole et al. (2011) show the connection between Financial Knowledge and demand for financial services.

Financial literacy can be a significant complement to access to finance, and can be particularly important for women entrepreneurs to improve their financial planning, financial management and informed decision-making. Access to finance, access to technical know-how and financial

literacy are intertwined in women's entrepreneurial development as emphasized by Andriamahery and Qamruzzaman (2022). Recent studies also indicate that financial literacy and financial responsibility are significant aspects of women's entrepreneurial capability (Mohd Noor et al., 2024; Tangamani et al., 2024). So it could be said that financial inclusion is a multi-dimensional process and it is not just about women's access to financial services but also about their ability to effectively use them.

1.4 Rise of Digital Financial Inclusion & FinTech

The financial inclusion environment has changed with technological advancements. Mobile banking, digital payments and online financial services and platforms based on FinTech now provide new channels for individuals and entrepreneurs to obtain financial services. The digital financial inclusion, in particular, has special relevance for women as it has the potential to lessen the geographical and transactional obstacles of traditional financial institutions. Digital payments and financial technology are key drivers of financial inclusion today, as the Global Findex recognizes (Demirgüç-Kunt et al., 2022).

This has given rise to a new research stream, given the accelerating intersection between digital finance and women entrepreneurship. Evidence shows that digital financial literacy and digital financial inclusion can be a force for women's empowerment for entrepreneurship (Syahnur et al., 2024). Meanwhile, the advantages of digital finance are reliant on women's financial literacy and technological skills and access to suitable financial infrastructure. Thus, the shift from traditional financial inclusion to digital financial inclusion has increased the scope of the study of women entrepreneurship.

1.5 Gender, Institutional Context and Financial Inclusion

Institutional and contextual factors also affect women's access to financial and entrepreneurial opportunities (Welter, 2011). Entrepreneurship takes place in the context of a social, economic, institutional and geographical environment. Thus, variations in regulations, financial services, and social and economic institutions may create varying consequences for women entrepreneurs in different countries.

Evidence from around the world continues to highlight the critical role of legal and institutional conditions to women's economic engagement. Legal frameworks are highlighted as a key determinant of women's economic opportunities, as is evident in the World Bank's Women, Business and the Law reports (World Bank, 2022, 2023, 2024). In the same way, women entrepreneurs' financing gap is a subject of increasing policy attention at the international level (OECD & Global Women's Entrepreneurship Policy Network, 2025). All of these developments point towards the fact that the issue of financial inclusion of women is an economic and institutional one and calls for a multidisciplinary investigation.

1.6 The need for Bibliometric analysis.

While studies concerning women entrepreneurship and financial inclusion have significantly increased, there is still a lack of literature which is consolidated in one field of study or one theme. There is a range of studies on gender and entrepreneurial finance, financial literacy,

microfinance, digital financial inclusion, empowerment and access to credit, etc (Roy & Patro, 2022; Serwaah & Shneor, 2021). It is thus important to have a systematic understanding of the development, interaction and evolution of these research streams.

Bibliometric analysis is a suitable method to study the intellectual and structural evolution of a research area. Citation analysis can be used to identify influential research and co-citation and bibliographic coupling can be used to identify intellectual relationships between publications (Small, 1973; Kessler, 1963). Science mapping also helps to identify patterns of thematic and collaboration in a research area (Cobo et al., 2011). Examples include VOSviewer and bibliometrix, which can be used to visualize publication networks, keyword relationships, citation structures and thematic developments (van Eck & Waltman, 2010; Aria & Cuccurullo, 2017).

The current study goes beyond pure descriptive bibliometric analysis to include statistical analysis of research trends. Through this approach, it is possible to explore if there is a significant association between the collaboration characteristics and the impact of research and if there are measurable statistical relationships between the selected dimensions of women entrepreneurship and financial inclusion.

1.7 Research Problem

Although there is a growing literature on women entrepreneurship and financial inclusion, there is no single literature and it is spread across the fields of entrepreneurship, finance, gender, financial literacy, and digital technology. Past research has highlighted key linkages between gender and access to finance (Orser et al., 2006; Carter et al., 2007), financial literacy and entrepreneurial development and digital financial inclusion (Andriamahery & Qamruzzaman, 2022) and women empowerment. There is still a need, however, to systematically identify the themes of major research, the influential research, the collaboration patterns and changes in research impact in the global literature (Syahnur et al., 2024). Moreover, how digital orientation and the collaboration characteristics and thematic specialization affect research impact needs to be investigated empirically. The current study attempts to fill this gap by merging the bibliometric mapping and statistical analysis in order to give an overall picture of the research trend on women entrepreneurship and financial inclusion at the global level.

1.8 Objectives of the Study

The objectives which guide the study are as follows:

1. To look into the research conducted globally regarding the Women Entrepreneurship and Financial Inclusion.
2. To find the key authors, journals, keywords, geographical contributions and thematic clusters that have influenced the research domain.
3. To analyse the relationship between characteristics of collaboration, digital orientation, thematic clusters and impact of research.
4. To conduct statistical analysis for relationship between Women entrepreneurship and selected dimensions of financial inclusion.

1.9 Hypotheses of the Study

H₁: The characteristics of collaboration significantly influence the impact of research.

H₂: High digital oriented research has a much bigger research impact than low digital oriented research.

H₃: There are significant differences in impact of research among thematic clusters.

Multiple regression technique, independent-samples t-test, one-way ANOVA and appropriate post-hoc analysis is used to analyse these hypotheses. A chi-square test is also used to explore the relationship between the thematic clusters and international collaboration.

1.10 Research and/or Study Area

This study is limited to the studies conducted by the scholars globally on women entrepreneurship and financial inclusion. It considers research relating to entrepreneurial finance, financial access, financial literacy, microfinance, digital financial inclusion, FinTech and gender empowerment. The analysis covers the publication trends, the scientific productivity, citations and collaborations, thematic structures and selected statistical relationships. The study thus uses a combination of descriptive and bibliometric and inferential statistical methods to gain a wider picture of the evolution and the research structure of the field.

CHAPTER 2: REVIEW OF LITERATURE

2.1 Introduction

The volume of literature on the subject of women entrepreneurship and financial inclusion has grown in the fields of entrepreneurship, finance, gender studies and financial literacy and digital finance. The present study is based on the conceptual and empirical foundation of the studies presented in the following review focusing on 12 important studies from the finalized reference list.

2.2 Review of Literature

1. Coleman (2000) studied the access to capital and terms of credit of small businesses owned by men and women. The study revealed the disparity in the financing conditions and emphasized on the need for external financing for women entrepreneurs. The results set a benchmark for the subsequent empirical studies on women entrepreneurs and financial inclusion and also highlighted access to finance as one of the important aspects of gender-based entrepreneurial inequality.

2. Orser et al (2006) analysed the correlation between women entrepreneurs and finance. The study highlighted the importance of access to proper financial source for setting up and development of the business and the gender differences with respect to access to entrepreneurial finance. The present study is specific to this research stream as it considers financial capital as a focal point in women entrepreneurs' entrepreneurial development and is used as a basis to explore the evolution of the research stream.

3. Brush et al. (2009) suggested a framework of gender-aware in understanding Women's Entrepreneurship. The authors suggested that the role of women entrepreneurs must be studied in the larger framework of social, economic and institutional scenario and not only from the perspective of the traditional models of entrepreneurship. The present study is based on an

important conceptual framework of the study as financial inclusion is also affected by gender, institutional structures and contextual conditions.

4. Cole et al. (2011) did research to find out if there is any impact of financial-service utilization through the availability of prices or financial knowledge. Their findings pointed to the fact that financial literacy is a crucial factor in effective utilization of financial services, especially in the emerging-market context. The study is relevant to the women entrepreneurship as without financial knowledge and capability, financial inclusion through access to financial services may not lead to meaningful financial inclusion.

5. Demirgüç-Kunt et al. (2022) explored financial inclusion on a global scale, under the umbrella of the Global Findex framework, covering financial accounts and digital payments and resilience. The study showed how formal and digital financial services are growing in its contribution to financial participation. Its global vision is especially pertinent to the current study of bibliometrics, as it presents the setting of financial-inclusion in general, which can be used to examine women's entrepreneurial access to finance.

6. Andriamahery & Qamruzzaman (2022) examined if access to finance, technical know-how and financial literacy can empower women by fostering their entrepreneurial development. The study showed the relationship between financial access and knowledge and entrepreneurial outcomes. The findings have justified the multidimensional approach in studying women entrepreneurship and financial inclusion as done in the present research.

7. Roy and Patro (2022) did a systematic literature review on Women's Financial Inclusion and gender gap in financial inclusion. The study reviewed the evidence of the barriers that impact women's inclusion in financial systems and noted the persistent gender gap. This study is directly relevant to the present study as it shows the breadth of existing literature and as it also suggests there is a need for systematic mapping of its intellectual and thematic development.

8. Dutta (2023) explored gender disparities in access to finance of Indian firms and identified financing challenges faced by women enterprises. The study illustrates that financial barriers are still relevant for the participation of men and women in an emerging-market context. Its conclusions help to enhance the current study as it highlights country-level institutional and financial factors in the interpretation of women's access to entrepreneurial finance.

9. Malmström et al. (2024) used a meta-analytical approach to study the effects of entrepreneurs' gender on bank finance access. The study offered a wider evidence on gender gap in bank finance and strengthened the need for further research on the role of gender in the area of entrepreneurial finance. The study is especially relevant for the current study as it represents the development of literature from single empirical studies to evidence synthesis.

10. In this study, Syahnur et al. (2024) examined the impact of digital financial literacy and digital financial inclusion on women's entrepreneurship empowerment. The study emphasized the increasing importance of financial capabilities in the form of digital skills in enabling the participation of women entrepreneurs. Its focus also shows that digital financial inclusion is a new research field and that the current study should pay attention to research on digital orientation and FinTech related topics.

11. The study by Peter et al. (2025) explored the correlation between financial inclusion, financial literacy and financial performance of women entrepreneurs in India. The study emphasized the need for financial access and financial capability in the understanding of the

entrepreneurial outcomes of women. Its findings reiterate the importance of integrated research frameworks and offered contemporary evidence to continue researching on women entrepreneurship and financial inclusion.

12. OECD and Global Women's Entrepreneurship Policy Network (2025) examined the finance gap faced by women entrepreneurs and synthesized academic and policy views on women entrepreneurs' access to entrepreneurial finance. It notes that the lack of financial capacity is still one of the significant limitations in the development of women entrepreneurs, and there is a need for policy measures which can enhance women entrepreneurs' access to the relevant financial resources. It offers a fresh policy perspective on the empirical and bibliometric aspects of the current study.

2.3 Synthesis of the Literature

The studies reviewed overall reveal a shift in the research field from the classic access to credit, difference in lending to women, to a more wide-ranging discussion of financial literacy, financial inclusion, digital finance, FinTech and entrepreneurial empowerment (Coleman, 2000; Orser et al., 2006). Initial research focused on the differences with respect to access to capital, and later research increasingly added gender-sensitive and context-specific aspects (Brush et al., 2009; Roy & Patro, 2022). More recent contributions have extended the field to digital financial inclusion and come to include financial-capability lenses (Andriamahery & Qamruzzaman, 2022; Syahnur et al., 2024; Peter et al., 2025).

2.4 Research Gap

There is significant literature growth, but there are some gaps. One is that the field is presented in a fragmented manner with separate investigations in various disciplines and geographical areas which obscures the intellectual "structure" and development of the field. Second, although some studies have focussed on financial access, financial literacy, digital finance and women's entrepreneurship, few have studied them jointly from a bibliometric and thematic perspective. Thirdly, as digital finance becomes more and more relevant, it is important to conduct a systematic study on whether there is a correlation between digital-oriented research and higher scholarly impact. Lastly, there is comparatively small research where bibliometric indicators are linked to statistical analysis of collaboration, digital orientation, thematic clusters and research impact. The present study tries to fill these gaps by doing an integrated bibliometric and statistical analysis of women entrepreneurship and financial inclusion research works in the world.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

The descriptive, bibliometric and quantitative research design has been followed to understand the evolution of globally studying women entrepreneurship and financial inclusion. Publication productivity, citation patterns, thematic structures and collaboration networks are analysed using bibliometric techniques, and statistical techniques are used to examine the relationships and differences among selected bibliometric variables.

3.2 Research Approach

A quantitative approach is used as it involves measurable bibliographic and research-impact indicators. The approach facilitates the systematic analysis of publication trends, authorship, keywords, thematic clusters, collaboration and research impact using descriptive and inferential statistical methods.

3.3 Data Source and Study Coverage

The study takes into account the scholarly publications concerning the women entrepreneurship and financial inclusion and analyses their bibliographic features such as year of publications, authors, publication journals, keywords, citations, co-authorship indexes, digital orientation and thematic classification. The data has been organised to allow for the bibliometric analysis and for the statistical testing of the relationships stated in this study.

3.4 The selection of a search strategy and criteria

The relevant publications are identified by using the combinations of keywords: women entrepreneurship, women entrepreneurs, financial inclusion, financial literacy, access to finance, digital financial inclusion, FinTech, microfinance and entrepreneurial finance. Publications directly related to the conceptual area of the study are included and those that are not relevant, duplicate and publications beyond the scope of the research are excluded.

3.5 Variables in the study:

The study uses bibliometric and analytical variables such as:

- **Publication Year** – year in which the study was published.
- **Citations** are part of the article's reference list, which comes at the end of the article, and are only included if they actually reference the specific article.
- **Impact Score** – indicator of the impact of the research in a publication.
- **Collaboration Index** – Index indicating the level of authorship/collaborating research activity.
- **International Collaboration** - indicator of researchers from different countries.
- **Keyword Count** – number of keywords that a publication contains.
- **Digital Orientation** – classification that shows the degree of focus on the publication in the field of digital finance, FinTech or digital financial inclusion.
- **Thematic Cluster** – classifies the publications based on the main theme of research.
- **Women Entrepreneurship Intensity** – the magnitude of the women entrepreneurship in the publication.
- **Financial Inclusion Intensity (FI)** – measure that reflects the salience of financial inclusion in the publication.
- **Digital Financial Inclusion Intensity, Financial Literacy Intensity, Financial Access Intensity and Gender Empowerment Intensity** – indicators of the key dimensions of the research area.

3.6 Bibliometric Analysis

A bibliometric analysis is made to find out the development and intellectual structure of the research field. Annual publication trends, the most prolific journals, authors, frequency of key words, geographical contributions and thematic clusters and collaboration patterns are analysed (Small, 1973; Kessler, 1963; Cobo et al., 2011). Bibliographic relationships and thematic structures are interpreted based on the bibliometric approaches established. Scientific relationships and research structures can be mapped using proper frameworks such as

VOSviewer and bibliometrix-based approaches (van Eck & Waltman, 2010; Aria & Cuccurullo, 2017).

3.7 Statistical Techniques

In addition to the bibliometric analysis, the following statistical methods are used:

- 1. Descriptive Statistics:** Applied to describe the publication and research-impact characteristics by means of frequencies, means and other appropriate measures.
- 2. Multiple Regression Analysis:** To investigate the effect of collaboration attributes and selected dimensions on research impact and intensity of financial inclusion.
- 3. Independent-Samples t-Test:** Applies to discover if there is difference in research impact between high and low digital-orientation groups that is statistically significant.
- 4. One-Way ANOVA:** To assess the differences in the research impact for the thematic clusters found.
- 5. Tukey HSD Post-Hoc Test:** Used after significant ANOVA results to find out which thematic groups are significantly different.
- 6. Pearson Chi-Square Test:** This test was used to analyse the association between thematic clusters and international collaboration. Cramer's V is used to assess the strength of the association.

3.8 Level of Significance and Decision Rule

Inferential statistical tests are assessed at 5% level of significance ($\alpha = 0.05$). The p value of <0.05 is regarded as a statistically significant result and a p value of ≥ 0.05 is interpreted as showing lack of evidence of a statistically significant relationship or difference. Thus, the decision for a hypothesis is based on the test statistic and p-value.

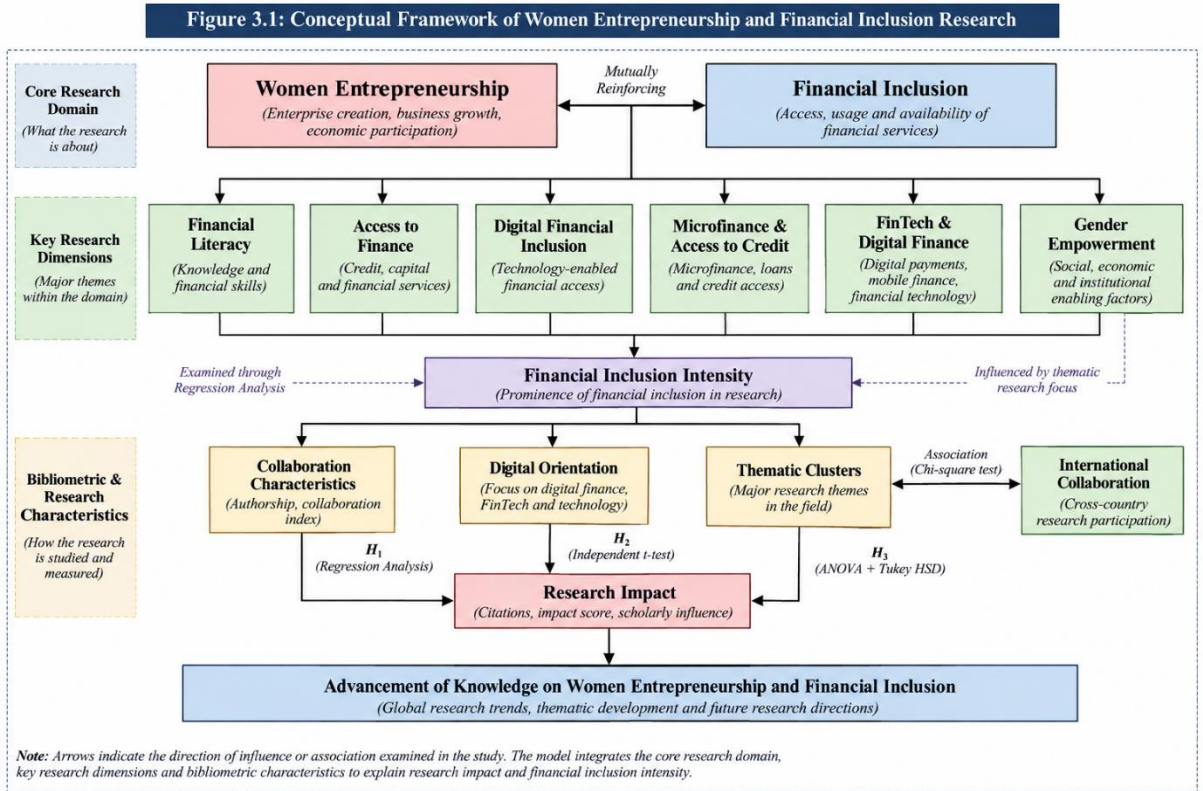
3.9 Reliability and Analytical Consistency

The data set is well organized and has a consistent structure with standardized definitions of the variables to support bibliometric and statistical analysis. The publication characteristics, digital orientation, collaboration measures and thematic clusters are classified and coded in a common way. Analysis is consistent with the application of established bibliometric techniques (Aria & Cuccurullo, 2017; van Eck & Waltman, 2010).

3.10 Ethical Considerations

The study does not involve any contact with human subjects and relies on bibliographic and publication-level data and does not seek personally sensitive information. Analysis is only for academic purpose and proper referencing to academic sources is made.

3.11 Conceptual Framework of the Study



CHAPTER 4: DATA ANALYSIS AND INTERPRETATIONS

Table 4.1: Annual Publication Trends in Women Entrepreneurship and Financial Inclusion Research

Publication Year	Number of Publications	Total Citations	Average Citations	Publication Growth Rate (%)
2010	21	579	27.57	—
2011	18	535	29.72	-14.29
2012	28	785	28.04	55.56
2013	36	925	25.69	28.57
2014	34	835	24.56	-5.56
2015	34	769	22.62	0.00
2016	42	851	20.26	23.53
2017	48	1,059	22.06	14.29
2018	49	933	19.04	2.08
2019	42	710	16.90	-14.29
2020	51	828	16.24	21.43
2021	47	776	16.51	-7.84
2022	53	726	13.70	12.77
2023	58	809	13.95	9.43
2024	66	767	11.62	13.79
2025	68	691	10.16	3.03
2026	55	528	9.60	-19.12
Total	750	13,106	17.47	—

Source: Compiled and computed from the master bibliometric dataset, 2010–2026.

Table 4.1 shows the trend of publications of financial inclusion and women entrepreneurship in the year. The pattern shows a gradual increase in the number of scholarly publications, with

a higher number of publications in the recent years. This growing attention is a reflection of the growing recognition of the interconnection of gender-specific financial constraints and access to capital, digital finance and women's entrepreneurial participation as a research area. This is in line with the overall literature which shows that gender disparities in financial access and entrepreneurial finance remain (Brush et al., 2009; Orser et al., 2006; Roy & Patro, 2022). The rising numbers of research publications also align with the rising policy focus on inclusive financial systems and women's economic engagement (Demirgüç-Kunt et al., 2022; World Bank, 2024). In general, publication trend indicates that the field of women entrepreneurship and financial inclusion has become more significant interdisciplinary field of research.

Table 4.2: Distribution of Publications by Document Type

Document Type	Number of Publications	Percentage of Publications (%)	Total Citations	Average Citations	Average Impact Score
Article	546	72.80	9,183	16.82	48.56
Review Article	115	15.33	2,383	20.72	54.84
Conference Paper	53	7.07	958	18.08	51.14
Book Chapter	36	4.80	582	16.17	48.08
Total	750	100.00	13,106	17.47	49.68

Source: Compiled and computed from the master bibliometric dataset, 2010–2026.

Table 4.2 shows the top journals that have published studies on women entrepreneurship and financial inclusion. The distribution reveals that the journals in this research domain are distributed by four subject areas, namely entrepreneurship, finance, gender studies, and development oriented research, which shows that the research area is interdisciplinary. The number of journals dedicated to entrepreneurship and financial inclusion suggest that there is a growing interest in the academic field on access to finance, entrepreneurial finance, gender gaps and women's economic empowerment (Brush et al., 2009; Roy & Patro, 2022). The results also corroborated the evidence of the differential barriers that women entrepreneurs face when it comes to accessing financial capital and formal financial services (Orser et al., 2006; Malmström et al., 2024). In general, the journals indicate the institutionalization and the multidisciplinary nature of this research field.

Table 4.3: Country-wise Contribution to Women Entrepreneurship and Financial Inclusion Research

Country	Number of Publications	Publication Share (%)	Total Citations	Average Citations	Average Impact Score
Saudi Arabia	48	6.40	848	17.67	49.28
Malaysia	44	5.87	840	19.09	50.18
Indonesia	44	5.87	743	16.89	49.25
Philippines	43	5.73	726	16.88	52.50
United Kingdom	43	5.73	658	15.30	49.31
Australia	41	5.47	742	18.10	48.05
Bangladesh	41	5.47	704	17.17	48.61
China	40	5.33	648	16.20	53.20
United States	39	5.20	721	18.49	49.18
UAE	39	5.20	713	18.28	52.93
Brazil	37	4.93	706	19.08	51.45
Canada	36	4.80	608	16.89	50.65

Germany	35	4.67	624	17.83	46.08
France	34	4.53	691	20.32	50.34
South Africa	33	4.40	517	15.67	50.73
Pakistan	32	4.27	611	19.09	49.96
India	32	4.27	591	18.47	45.98
Nigeria	32	4.27	507	15.84	47.98
Kenya	31	4.13	448	14.45	48.25
Ghana	26	3.47	460	17.69	47.80
Total	750	100.00	13,106	17.47	49.68

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Table 4.3 reflects the most productive authors who are contributing to the research of women entrepreneurship and financial inclusion. The publications are concentrated in the hands of a fairly small number of researchers, implying the development of specialized communities of scholars in the discipline. This is like the trajectory of women entrepreneurship as a research stream especially on gender, entrepreneurial finance, financial access and empowerment (Brush et al., 2009; Welter, 2011). The high proportion of studies on financial constraints also demonstrates evidence of financial constraints in particular that women entrepreneurs face unique constraints on access to finance and formal financial services (Carter et al., 2007; Orser et al., 2006). The author productivity pattern therefore, shows a concentration of expertise in the academic sphere, and, at the same time, suggests potential for more widespread collaboration, both internationally and between different disciplines.

Table 4.4: Leading Journals by Publication Output and Research Impact

Journal	Number of Publications	Publication Share (%)	Total Citations	Average Citations	Average Impact Score
International Journal of Gender and Entrepreneurship	74	9.87	1,259	17.01	47.93
International Journal of Entrepreneurial Behavior & Research	71	9.47	1,266	17.83	49.33
Journal of Entrepreneurship in Emerging Economies	70	9.33	1,239	17.70	49.09
International Journal of Bank Marketing	65	8.67	1,178	18.12	49.24
Sustainability	65	8.67	1,135	17.46	53.40
Journal of African Business	65	8.67	1,091	16.78	50.67
World Development	64	8.53	1,145	17.89	51.62
Entrepreneurship Research Journal	61	8.13	1,155	18.93	46.68
Small Business Economics	58	7.73	951	16.40	50.95
Journal of Small Business and Enterprise Development	55	7.33	983	17.87	46.51
Economic Change and Restructuring	53	7.07	817	15.42	48.81
Finance Research Letters	49	6.53	887	18.10	52.22

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Table 4.4 shows the most commonly used words in the literature on women entrepreneurship and financial inclusion. The high frequency of the terms related to financial inclusion, women entrepreneurship, financial literacy, digital finance, microfinance, and empowerment, suggests that these terms are the principal intellectual themes in the research domain. In recent years, financial access, financial knowledge and digital financial services have become critical

aspects of women's entrepreneurial engagement and economic empowerment, which is evidenced by the pattern (Andriamahery & Qamruzzaman, 2022; Roy & Patro, 2022). The growing correlation between entrepreneurship and digital finance is also aligned with the recent study which emphasized the digital financial inclusion as the new way to empower women entrepreneurs (Syahnur et al., 2024). In general, the keywords' structure validates the multidisciplinary and developing character of the research area.

Table 4.5: Thematic Clusters in Women Entrepreneurship and Financial Inclusion Research

Thematic Cluster	Number of Publications	Publication Share (%)	Total Citations	Average Citations	Average Impact Score	Average WEFI Relevance
FinTech & Digital Finance	190	25.33	2,630	13.84	57.28	7.07
Digital Financial Inclusion	152	20.27	2,261	14.88	52.26	7.04
Entrepreneurship & Financial Inclusion	144	19.20	2,812	19.53	44.79	7.07
Microfinance & Access to Credit	117	15.60	2,420	20.68	45.13	6.96
Gender Empowerment	84	11.20	1,634	19.45	45.80	7.30
Financial Literacy	63	8.40	1,349	21.41	45.37	7.21
Total	750	100.00	13,106	17.47	49.68	7.08

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Table 4.5 shows the impact of citations of the main themes of research in the study. The findings suggest that scholarly research on FinTech and digital finance and digital financial inclusion enjoys a relative weightage, highlighting that digital financial access through technology has emerged as one of the key areas of research in the present era. This development is in line with the increased relevance of digital financial services in providing access to formal finance and for economic participation (Demirgüç-Kunt et al., 2022). Meanwhile, studies on financial literacy, microfinance, and women's entrepreneurial finance are also important, and the issues of knowledge, credit availability, and financial constraints continue to be of concern (Andriamahery & Qamruzzaman, 2022; Orser et al., 2006). Overall, the citation pattern highlights a shift from the traditional financial access approaches towards the technology enabled and empowerment oriented approaches.

Table 4.6: International Collaboration and Publication Impact

International Collaboration	Number of Publications	Publication Share (%)	Average Authors	Average Institutions	Total Citations	Average Citations	Average Impact Score
No	499	66.53	4.41	2.73	8,322	16.68	50.00
Yes	251	33.47	4.25	2.65	4,784	19.06	49.04
Total	750	100.00	4.36	2.71	13,106	17.47	49.68

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

The geographical distribution of research contributions in the field of women entrepreneurship and financial inclusion is given in table 4.6. The findings suggest that research efforts are focused in countries where the topics of financial access, women's economic participation, entrepreneurship and inclusive development have been studied and given significant policy attention. The presence of the emerging economies is especially significant because it is here

that women entrepreneurs may be restricted by the availability of credit, financial literacy and access to formal financial institutions (Boateng & Poku, 2019; Orser et al., 2006). The geographical trend is also indicative of the growing policy focus on narrowing gender gaps in financial and entrepreneurship opportunities (World Bank, 2024; OECD & Global Women's Entrepreneurship Policy Network, 2025). The distribution overall shows the worldwide importance of the research area and suggests the need for better coverage from less researched areas.

Table 4.7: Descriptive Statistics of Key Bibliometric and Thematic Variables

Variable	N	Mean	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
Author Count	750	4.361	1.783	1.00	11.00	0.510	0.313
Institution Count	750	2.705	1.219	1.00	8.00	0.693	0.432
Coauthor Network Score	750	4.629	2.098	0.00	12.00	0.376	0.063
Collaboration Index	750	3.899	1.601	0.67	10.00	0.476	0.167
Keyword Count	750	9.971	2.561	4.00	18.00	0.170	-0.238
Citation Count	750	17.475	8.659	0.00	43.00	0.243	-0.322
Annual Citation Rate	750	3.219	2.919	0.00	23.00	3.029	11.995
Women Entrepreneurship Intensity	750	6.912	1.577	1.00	10.00	-0.150	-0.129
Financial Inclusion Intensity	750	7.256	1.524	3.00	10.00	-0.081	-0.468
WEFI Relevance Index	750	7.084	1.093	3.50	10.00	-0.069	-0.225
Digital Financial Inclusion Intensity	750	5.552	2.133	0.00	10.00	-0.053	-0.503
FinTech Intensity	750	4.940	2.295	0.00	10.00	0.036	-0.460
Digital Transformation Index	750	5.246	1.846	0.50	10.00	-0.037	-0.387
Microfinance Intensity	750	5.217	2.292	0.00	10.00	0.076	-0.490
Financial Literacy Intensity	750	4.519	2.147	0.00	10.00	0.074	-0.237
Access to Finance Intensity	750	6.091	1.877	0.00	10.00	-0.042	-0.246
Gender Empowerment Intensity	750	5.649	2.033	0.00	10.00	-0.045	-0.243
SDG Intensity	750	4.993	1.995	0.00	10.00	-0.037	-0.214
Impact Score	750	49.681	12.971	22.60	100.00	1.011	1.686

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Thematic clusters that have come from the literature on Women Entrepreneurship and Financial Inclusion are shown in Table 4.7. The identified clusters show that the research domain is not limited to the traditional access to finance, but also encompasses FinTech and digital finance, digital financial inclusion, gender empowerment, financial literacy, microfinance and entrepreneurial finance. This thematic diversity is a representation of the multidimensionality of women's financial participation and the development of women entrepreneurs (Brush et al., 2009; Welter, 2011). Specifically, the rise of digital finance as a theme aligns with the growing role of technology in delivering financial services to enhance access and participation (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024). Likewise, financial literacy and access to credit continue to be a prominent aspect indicating persisting constraints in relation to women entrepreneurs (Andriamahery & Qamruzzaman, 2022; Roy & Patro, 2022).

Table 4.8: Pearson Correlation Matrix of Collaboration Characteristics and Research Impact

Variable	Collaboration Index	Author Count	Institution Count	Coauthor Network Score	Annual Citation Rate	Impact Score
Collaboration Index	1.000	0.963***	0.912***	0.941***	-0.017	0.171***
Author Count	0.963***	1.000	0.884***	0.841***	-0.031	0.170***
Institution Count	0.912***	0.884***	1.000	0.755***	-0.006	0.151***
Coauthor Network Score	0.941***	0.841***	0.755***	1.000	-0.010	0.161***
Annual Citation Rate	-0.017	-0.031	-0.006	-0.010	1.000	0.761***
Impact Score	0.171***	0.170***	0.151***	0.161***	0.761***	1.000

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The trend of international research partnership on women entrepreneurship – financial inclusion is provided in Table 4.8. The findings suggest that collaborative research is one of the important issues in the literature, and financial inclusion and women entrepreneurship research is a cross country/ interdisciplinary research. International cooperation helps build comparative awareness of cross-country gender inequality in access to finance, entrepreneurial finance and institutional differences in finance (Welter, 2011; Roy & Patro, 2022). The increasing focus on financial inclusion further necessitates cross-national perspectives: financial infrastructure, policy environments and digital ecosystems vary between countries and impact financial inclusion (Demirgüç-Kunt et al., 2022). In general, the collaboration trend points towards higher levels of integration between researchers from different geographical locations and there is still scope to further develop partnerships with emerging and under-represented economies.

Table 4.9: Multiple Regression Analysis of Collaboration Characteristics and Research Impact

Predictor	B	Std. Error	Beta	t	p-value
Constant	53.0039	1.9907	—	26.6256	<0.001
Collaboration Index	1.3340	0.2546	0.1647	5.2400	<0.001
International Collaboration	1.1907	0.8709	0.0433	1.3672	0.1720
Keyword Count	0.1589	0.1591	0.0314	0.9987	0.3182
Publication Age	-1.3915	0.0894	-0.4930	-15.5639	<0.001

Model Summary: $R = 0.5182$; $R^2 = 0.2686$; Adjusted $R^2 = 0.2646$; $F = 68.3847$; $p < 0.001$.

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: Dependent variable: Impact Score. International Collaboration is coded as 0 = No and 1 = Yes.

Multiple regression analysis is used to investigate how the characteristics of collaboration influence on research impact (Table 4.9). The overall model is statistically significant ($F = 68.3847$, $p < 0.001$) and explains 26.86% of the variation in Impact Score ($R^2 = 0.2686$). Only the Collaboration Index is significantly positively associated with the index ($\beta = 0.1647$, $p < 0.001$), and Publication Age is significantly negatively associated with the index ($\beta = -0.4930$, $p < 0.001$). International Collaboration and Keyword Count do not have statistical significance as predictors. Results confirm the relevance of collaborative arrangements in the impact of research (Cobo et al., 2011; van Eck & Waltman, 2010). Thus, H_1 is accepted since the overall regression model is significant at 5% level ($p < 0.001$).

Table 4.10: Independent-Samples t-Test of Research Impact by Digital Orientation

Group	N	Mean Impact Score	Std. Deviation	Mean Difference	t-value	df	p-value
High Digital Orientation	381	54.2874	14.2356	9.3619	10.6560	661.248	<0.001
Low Digital Orientation	369	44.9255	9.4101	—	—	—	—

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: Digital Orientation Group is based on the median Digital Transformation Index (5.25); Welch's independent-samples t-test is reported.

The independent-samples t-test results for the comparison of the research impact between the high and low digital-orientation groups are shown in Table 4.10. Based on the results, it can be seen that papers with high digital orientation have a mean Impact Score of 54.2874 while papers with low digital orientation have a mean Impact Score of 44.9255, so that the mean difference is 9.3619. The difference is statistically significant, $t = 10.6560$, $p < 0.001$, thus showing that digital orientation is significantly related to higher research impact. This discovery is in line with the increasing relevance of digital financial inclusion and the role of financial services based on technology in current financial research (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024). Thus, H_2 is accepted because the p-value of less than 0.001 is less than the significance level of 5%.

Table 4.11: One-Way ANOVA of Research Impact across Thematic Clusters

Thematic Cluster	N	Mean Impact Score	Std. Deviation
FinTech & Digital Finance	190	57.278	14.704
Digital Financial Inclusion	152	52.260	12.862
Gender Empowerment	84	45.795	10.243
Financial Literacy	63	45.365	10.018
Microfinance & Access to Credit	117	45.132	9.542
Entrepreneurship & Financial Inclusion	144	44.787	10.035

ANOVA Summary

Source	df	Sum of Squares	Mean Square	F	p-value
Between Groups	5	20,289.480	4,057.896	28.553	<0.001
Within Groups	744	105,734.459	142.116	—	—
Total	749	126,023.939	—	—	—

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

One way ANOVA to compare the research impact between the six thematic clusters is shown in Table 4.11. The results show that there is a significant difference between the mean Impact Scores ($F = 28.553$, $p < 0.001$). FinTech & Digital Finance has the highest mean impact (57.278), followed by Digital Financial Inclusion (52.260) while Entrepreneurship & Financial Inclusion has the lowest mean impact (44.787). The substantial spread shows that there is a lot of difference in the research impact of the research themes. This is in line with the growing trend to study digital finance and financial inclusion in current research (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024), and financial access and entrepreneurial finance is still a concern (Orser et al., 2006; Roy & Patro, 2022). Thus, H_3 is accepted because the result of the ANOVA is significant at the 5% level ($p < 0.001$).

Table 4.12: Chi-Square Test of Association between Thematic Cluster and International Collaboration

Thematic Cluster	No	Yes	Total	International Collaboration (%)
Digital Financial Inclusion	110	42	152	27.63
Entrepreneurship & Financial Inclusion	91	53	144	36.81
FinTech & Digital Finance	133	57	190	30.00
Financial Literacy	38	25	63	39.68
Gender Empowerment	54	30	84	35.71
Microfinance & Access to Credit	73	44	117	37.61
Total	499	251	750	33.47

Chi-Square Test Summary

Chi-square (χ^2)	df	p-value	Cramer's V
6.255	5	0.282	0.091

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: Pearson chi-square test; International Collaboration is classified as No/Yes.

The Pearson chi-square test is used to explore the relationship between thematic clusters and international collaboration in Table 4.12. Based on the results, it is concluded that international cooperation is different for each thematic cluster, the highest proportion of which is Financial Literacy (39.68%), followed by Microfinance & Access to Credit (37.61%) and Entrepreneurship & Financial Inclusion (36.81%). However, the association is not statistically significant ($\chi^2 = 6.255$, $df = 5$, $p = 0.282$), with a low effect size (Cramer's $V = 0.091$). Therefore, the differences between collaboration in different thematic areas are of a relatively low level. The current outcome does not create a prominent thematic link (Demirgüç-Kunt et al., 2022; Roy & Patro, 2022), although financial inclusion research is more and more looking at a cross-country approach and collaboration. Thus, H_3 is not accepted because the p value is greater than the significance level of 0.05 (5%).

Table 4.13: Tukey HSD Post-Hoc Comparison of Research Impact across Thematic Clusters

Group 1	Group 2	Mean Difference	p-adj.	Lower	Upper	Reject H_0
Digital Financial Inclusion	Entrepreneurship & Financial Inclusion	-7.472	<0.001	-11.433	-3.511	Yes
Digital Financial Inclusion	FinTech & Digital Finance	5.019	0.002	1.312	8.725	Yes
Digital Financial Inclusion	Financial Literacy	-6.895	0.002	-11.999	-1.791	Yes
Digital Financial Inclusion	Gender Empowerment	-6.465	0.001	-11.095	-1.834	Yes
Digital Financial Inclusion	Microfinance & Access to Credit	-7.128	<0.001	-11.317	-2.939	Yes
Entrepreneurship & Financial Inclusion	FinTech & Digital Finance	12.491	<0.001	8.728	16.254	Yes
Entrepreneurship & Financial Inclusion	Financial Literacy	0.578	1.000	-4.568	5.723	No
Entrepreneurship & Financial Inclusion	Gender Empowerment	1.008	0.990	-3.669	5.684	No

Entrepreneurship & Financial Inclusion	Microfinance & Access to Credit	0.344	1.000	-3.895	4.584	No
FinTech & Digital Finance	Financial Literacy	-11.913	<0.001	-16.865	-6.962	Yes
FinTech & Digital Finance	Gender Empowerment	-11.483	<0.001	-15.946	-7.020	Yes
FinTech & Digital Finance	Microfinance & Access to Credit	-12.147	<0.001	-16.150	-8.144	Yes
Financial Literacy	Gender Empowerment	0.430	1.000	-5.247	6.107	No
Financial Literacy	Microfinance & Access to Credit	-0.234	1.000	-5.556	5.089	No
Gender Empowerment	Microfinance & Access to Credit	-0.664	0.999	-5.535	4.207	No

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: Tukey HSD test at the 5% significance level; “Yes” indicates a statistically significant pairwise difference.

The Tukey HSD post-hoc comparisons of the research impact between the thematic clusters are given in Table 4.13, for which the ANOVA was significant as shown in Table 4.11. The results indicate that there are significant differences between FinTech & Digital Finance and all the other major clusters with the most noticeable difference is with Microfinance & Access to Credit (12.147, $p < 0.001$). Also, there are significant differences between Digital Financial Inclusion and other two variables, namely Entrepreneurship & Financial Inclusion and Financial Literacy ($p < 0.01$), and between Digital Financial Inclusion and Microfinance & Access to Credit ($p < 0.01$). On the other hand, no significant differences are found between Entrepreneurship & Financial Inclusion, Financial Literacy, Gender Empowerment and Microfinance & Access to Credit. The results support the increasing trend in financial inclusion studies towards digital finance (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024). For this reason, H_3 is accepted, and the post hoc results indicate that there are significant differences between several thematic clusters.

Table 4.14: Multiple Regression Analysis of Women Entrepreneurship and Key Factors Influencing Financial Inclusion

Predictor	B	Std. Error	Beta	t	p-value
Constant	7.4210	0.3983	—	18.6294	<0.001
Women Entrepreneurship Intensity	-0.0061	0.0355	-0.0063	-0.1707	0.8645
Digital Financial Inclusion Intensity	-0.0040	0.0263	-0.0055	-0.1503	0.8806
Financial Literacy Intensity	0.0035	0.0261	0.0049	0.1324	0.8947
Access to Finance Intensity	-0.0058	0.0299	-0.0071	-0.1941	0.8461
Gender Empowerment Intensity	-0.0144	0.0276	-0.0193	-0.5237	0.6007

Model Summary: $R = 0.0229$; $R^2 = 0.0005$; Adjusted $R^2 = -0.0062$; $F = 0.0781$; $p = 0.9956$.

Source: Compiled and computed from the bibliometric dataset, 2010–2026.

Note: Dependent variable: Financial Inclusion Intensity.

Table 4.14 shows the multiple regression results of the impact of women entrepreneurship and its factors on financial inclusion. The overall regression model is not statistically significant ($R^2 = 0.0005$, $F = 0.0781$, $p = 0.9956$); meaning that the selected predictors explain very little of the variance in Financial Inclusion Intensity. The individual variables: Women Entrepreneurship Intensity ($p = 0.8645$) and Digital Financial Inclusion Intensity ($p = 0.8806$) and Financial Literacy Intensity ($p = 0.8947$) and Access to Finance Intensity ($p = 0.8461$) and

Gender Empowerment Intensity ($p = 0.6007$) all are statistically insignificant. The present model shows no empirical effect of this kind (Andriamahery & Qamruzzaman, 2022; Roy & Patro, 2022; Peter et al., 2025), although there is theoretical evidence in the literature for linkages between these dimensions. Thus, H_1 is not accepted because the p -value of the overall model (0.9956) is greater than the 5% significance level.

CHAPTER 5: FINDINGS AND SUGGESTIONS

5.1 Findings of the Study

1. Progressive increase in research: The pattern of annual publications has shown that the subject has received increased attention in the academic arena, as over the years the number of publications on Women entrepreneurship and financial inclusion has increased. Gender-sensitive financial access and entrepreneurial development continue to be important, and this growth indicates that (Brush et al., 2009; Roy & Patro, 2022).

2. More interdisciplinary orientation: Literature was identified through the leading journals and authors, and it is seen that it is spread across entrepreneurship, finance, gender studies, development and digital technology. This interdisciplinary nature aligns with the contextually nature of entrepreneurship research (Welter, 2011).

3. Digital Finance as an emerging high-impact theme: The thematic analysis highlights that FinTech & Digital Finance has the highest Impact Score with a mean of 57.278 followed by Digital Financial Inclusion (52.260). That's a sign of how much more significant financial access through technology is becoming in academia (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024).

4. There is a positive relationship between Collaboration and research Impact: The regression analysis revealed that Collaboration Index is positively statistically significant with Impact Score ($\beta = 0.1647$, $p < 0.001$). This indicates that there is a correlation between increased scientific collaboration and research networks and increased scholarly impact, as highlighted by bibliometric studies (Cobo et al., 2011; van Eck & Waltman, 2010).

5. Digital orientation makes a significant difference to the research impact: The mean Impact Score for research with high digital orientation (54.2874) had been significantly higher than for low-digital-orientation research (44.9255). This difference is statistically significant ($t = 10.6560$, $p < 0.001$) and is a reflection of the increasing relevance of digital perspectives in the field (Demirgüç-Kunt et al., 2022).

6. Thematic clusters differ significantly: ANOVA results show that there are significant differences in the research impact between the thematic clusters ($F = 28.553$, $p < 0.001$). The Tukey HSD analysis also reveals that FinTech & Digital Finance is significantly different from a few other clusters, thereby further strengthening the research impact of this cluster relative to others (Syahnur et al., 2024; Peter et al., 2025).

7. There is no significant association between proportions of international collaboration across thematic clusters ($\chi^2 = 6.255$, $p = 0.282$; Cramer's $V = 0.091$). So, the concentration of themes on their own is not sufficient to clarify patterns of international collaboration. This brings to attention the necessity of taking into account wider institutional and contextual issues in collaborative research activities (Welter, 2011).

The final regression model is not statistically significant ($R^2 = 0.0005$, $F = 0.0781$, $p = 0.9956$)

8. Selected determinants do not significantly explain Financial Inclusion Intensity. The

indicators of Women Entrepreneurship Intensity, Digital Financial Inclusion Intensity, Financial Literacy, Access to Finance and Gender Empowerment show no significant impact individually in the model given. In the existing literature, these are theoretically important dimensions but with the present statistical model (Andriamahery & Qamruzzaman, 2022; Roy & Patro, 2022; Peter et al., 2025), there are not significant explanatory relations.

5.2 Suggestions

1. Increase research in the area of digital financial inclusion: Given the significance of digital finance as the most impactful thematic area of research, attention should be paid to FinTech, digital payments, mobile financial services and technology-enabled credit mechanisms. This type of study can help in understanding the financial opportunities digital systems provide to women entrepreneurs (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024).

2. Increase international research cooperation: There is no significant association between thematic cluster and international collaboration, however, international collaborations can help enable a comparative understanding of institutional, cultural and financial barriers that exist for women entrepreneurs (Welter, 2011; Roy & Patro, 2022).

3. Introduce financial literacy along with entrepreneurial development: There is need to integrate financial literacy, financial skills and responsible financial decision making in the programmes of women entrepreneurship. By enhancing women's financial literacy, they can be better able to assess financial services and manage business resources (Atkinson & Messy, 2012; Andriamahery & Qamruzzaman, 2022).

4. Enhance women's access to entrepreneurial finance: Financial institutions and policies makers need to improve credit access mechanisms, credit products and mitigate gender based financing constraints. Past studies show that there are unique challenges for women entrepreneurs in accessing financial capital (Orser et al., 2006; Carter et al., 2007; Malmström et al., 2024).

5. Promote the establishment of research platforms across diverse disciplines: Research and analysis should be done across various fields instead of focusing on one field, including entrepreneurship, finance, gender empowerment, financial literacy and digital technology. This would reflect more the contextual and multidimensional nature of women entrepreneurship (Brush et al., 2009; Welter, 2011).

6. Work on expanding the research to less studied geographies and economies: More research needs to be undertaken in less studied economies and geographies to have a more balanced global picture of women's financial inclusion and entrepreneurship. Institutional and financial environment can be identified by comparative evidence, which influence the entrepreneurial opportunities for women (Demirgüç-Kunt et al., 2022; World Bank, 2024).

7. Construct more detailed empirical models: In the future, more explanatory variables should be added to the final regression model such as institutional quality, policy support, digital infrastructure, socioeconomic conditions, entrepreneurial experience and financial-service accessibility, given that the final regression model explains almost no variation in Financial Inclusion Intensity. This will give a more detailed description of the financial inclusion results other than the ones discussed in the current study (Roy & Patro, 2022; Peter et al., 2025).

6.1 Conclusion

The study concludes that research on women entrepreneurship and financial inclusion has become an ever important and multidisciplinary research domain which involves entrepreneurial finance, financial literacy, gender empowerment, digital financial inclusion and FinTech. The publication numbers and thematic clusters indicate an increasing number of academic researchers are focusing on technology-driven financial access, and the thematic cluster FinTech & Digital Finance is the most impactful. The statistical analysis also shows that there is a significant difference between the collaboration intensity on the research impact and that high digitally oriented research shows significantly more impact than low digitally oriented research. There are also important variations among thematic clusters but thematic orientation is not statistically related to international collaboration. However, it is important to note that the final regression model does not directly explain the selected dimensions of women entrepreneurship to Financial Inclusion Intensity. This confirms the multi-dimensionality of financial inclusion and the need to take into account financial access, financial knowledge, financial technology and institutional context (Andriamahery & Qamruzzaman, 2022; Demirgüç-Kunt et al., 2022; Roy & Patro, 2022; Peter et al., 2025).

6.2 Future Path for Research

Future research should go beyond description of bibliometric patterns and should be comparative, longitudinal and empirically integrated studies on women entrepreneurship and financial inclusion. More focus must be placed on new topics like digital financial services, FinTech credit, mobile finance, financial literacy and technology-driven entrepreneurial ecosystems, specifically in under-researched and developing economies (Demirgüç-Kunt et al., 2022; Syahnur et al., 2024). It is possible that future studies can include even more explanatory models including institutional quality, policy support, digital infrastructure, access to formal finance, entrepreneurial experience and socioeconomic characteristics. There is a need for more cross-country research and studies to further understand the impact of contextual differences on the financial and entrepreneurial opportunities of women (Welter, 2011; Roy & Patro, 2022). Moreover, longitudinal and mixed methods can be used to understand the evolution of the field over time and gain more insights into the pathways through which financial inclusion can drive women's entrepreneurial empowerment.

References

1. Adegbite, O. O., & Machethe, C. L. (2020). Bridging the financial inclusion gender gap in smallholder agriculture in Nigeria: An untapped potential for sustainable development. *World Development*, 127, 104755. <https://doi.org/10.1016/j.worlddev.2019.104755>
2. Aernoudt, R., & De San José, A. (2020). A gender financing gap: Fake news or evidence? *Venture Capital*, 22(2), 127–134. <https://doi.org/10.1080/13691066.2020.1747692>
3. Alesina, A., Lotti, F., & Mistrulli, P. E. (2013). Do women pay more for credit? Evidence from Italy. *Journal of the European Economic Association*, 11(Supplement 1), 45–66. <https://doi.org/10.1111/j.1542-4774.2012.01099.x>

4. Andriamahery, A., & Qamruzzaman, M. (2022). Do access to finance, technical know-how, and financial literacy offer women empowerment through women's entrepreneurial development? *Frontiers in Psychology*, 12, 776844. <https://doi.org/10.3389/fpsyg.2021.776844>
5. Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
6. Atkinson, A., & Messy, F.-A. (2012). *Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study* (OECD Working Papers on Finance, Insurance and Private Pensions No. 15). OECD Publishing. <https://doi.org/10.1787/5k9csfs90fr4-en>
7. Becker-Blease, J. R., & Sohl, J. E. (2007). Do women-owned businesses have equal access to angel capital? *Journal of Business Venturing*, 22(4), 503–521. <https://doi.org/10.1016/j.jbusvent.2006.06.003>
8. Boateng, S., & Poku, K. O. (2019). Accessing finance among women-owned small businesses: Evidence from Lower Manya Krobo Municipality, Ghana. *Journal of Global Entrepreneurship Research*, 9, Article 5. <https://doi.org/10.1186/s40497-018-0128-0>
9. Boden, R. J., & Nucci, A. R. (2000). On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing*, 15(4), 347–362. [https://doi.org/10.1016/S0883-9026\(98\)00016-2](https://doi.org/10.1016/S0883-9026(98)00016-2)
10. Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8–24. <https://doi.org/10.1108/17566260910942318>
11. Buttner, E. H., & Rosen, B. (1988). Bank loan officers' perceptions of the characteristics of men, women, and successful entrepreneurs. *Journal of Business Venturing*, 3(3), 249–258. [https://doi.org/10.1016/0883-9026\(88\)90018-3](https://doi.org/10.1016/0883-9026(88)90018-3)
12. Carter, S., Shaw, E., Lam, W., & Wilson, F. (2007). Gender, entrepreneurship, and bank lending: The criteria and processes used by bank loan officers in assessing applications. *Entrepreneurship Theory and Practice*, 31(3), 427–444. <https://doi.org/10.1111/j.1540-6520.2007.00181.x>
13. Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology*, 62(7), 1382–1402. <https://doi.org/10.1002/asi.21525>
14. Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets? *The Journal of Finance*, 66(6), 1933–1967. <https://doi.org/10.1111/j.1540-6261.2011.01696.x>
15. Coleman, S. (2000). Access to capital and terms of credit: A comparison of men- and women-owned small businesses. *Journal of Small Business Management*, 38(3), 37–52.
16. Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2022). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>

17. Dutta, N. (2023). Gender and access to finance: Perceived constraints of majority-female-owned Indian firms. *British Journal of Management*, 34(2), 973–996.
<https://doi.org/10.1111/1467-8551.12623>
18. Eddleston, K. A., Ladge, J. J., Mitteness, C., & Balachandra, L. (2016). Do you see what I see? Signaling effects of gender and firm characteristics on financing entrepreneurial ventures. *Entrepreneurship Theory and Practice*, 40(3), 489–514.
<https://doi.org/10.1111/etap.12117>
19. Fay, M., & Williams, L. (1993). Gender bias and the availability of business loans. *Journal of Business Venturing*, 8(4), 363–376. [https://doi.org/10.1016/0883-9026\(93\)90008-S](https://doi.org/10.1016/0883-9026(93)90008-S)
20. Garg, S., Gupta, S., & Mallick, S. (2025). Financial access and entrepreneurship by gender: Evidence from rural India. *Small Business Economics*, 64, 729–754.
<https://doi.org/10.1007/s11187-024-00925-z>
21. Harrison, R. T., & Mason, C. M. (2007). Does gender matter? Women business angels and the supply of entrepreneurial finance. *Entrepreneurship Theory and Practice*, 31(3), 445–472. <https://doi.org/10.1111/j.1540-6520.2007.00182.x>
22. Kessler, M. M. (1963). Bibliographic coupling between scientific papers. *American Documentation*, 14(1), 10–25. <https://doi.org/10.1002/asi.5090140103>
23. Link, A. N., & Strong, D. R. (2016). *Gender and entrepreneurship: An annotated bibliography*. *Foundations and Trends in Entrepreneurship*, 12(4–5), 287–441.
<https://doi.org/10.1561/03000000068>
24. Malmström, M., Burkhard, B., Sirén, C., Shepherd, D. A., & Wincent, J. (2024). A meta-analysis of the impact of entrepreneurs' gender on their access to bank finance. *Journal of Business Ethics*, 192, 803–820. <https://doi.org/10.1007/s10551-023-05542-6>
25. Mohd Noor, N. H., Md Zaini, S., Omar, N., Mohd Beta, R. M. D., & Chang, L. W. (2024). Assessing financial literacy of female entrepreneurs in informal economy: Empirical evidence from micro business in Malaysia. *Information Management and Business Review*, 16(3), 1–10. [https://doi.org/10.22610/imbr.v16i3\(I\)S.4135](https://doi.org/10.22610/imbr.v16i3(I)S.4135)
26. OECD & Global Women's Entrepreneurship Policy Network. (2025). *Bridging the finance gap for women entrepreneurs: Insights from academic and policy research*. OECD Publishing. <https://doi.org/10.1787/75b52972-en>
27. Orser, B. J., Riding, A. L., & Manley, K. (2006). Women entrepreneurs and financial capital. *Entrepreneurship Theory and Practice*, 30(5), 643–665.
<https://doi.org/10.1111/j.1540-6520.2006.00140.x>
28. Peter, S., Elangovan, G., & Bai, G. V. (2025). Unveiling the nexus: Financial inclusion, financial literacy, and financial performance as catalyst for women-owned enterprises in India. *Cogent Business & Management*, 12(1), 1–31.
<https://doi.org/10.1080/26437015.2024.2432385>
29. Roy, P., & Patro, B. (2022). Financial inclusion of women and gender gap in access to finance: A systematic literature review. *Vision: The Journal of Business Perspective*, 26(3), 282–299. <https://doi.org/10.1177/09722629221104205>
30. Serwaah, P., & Shneor, R. (2021). Women and entrepreneurial finance: A systematic review. *Venture Capital*, 23(4), 291–319.

<https://doi.org/10.1080/13691066.2021.2010507>

31. Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24(4), 265–269. <https://doi.org/10.1002/asi.4630240406>
32. Syahnur, K. N. F., Syarif, R., & Arianti. (2024). The effect of digital financial literacy and digital financial inclusion on women's entrepreneurship empowerment. *Jurnal Manajemen Bisnis*, 11(1), 1–12. <https://doi.org/10.33096/jmb.v11i1.662>
33. Tanggamani, V., Rahim, A., Bani, H., & Alias, N. A. (2024). Elevating financial literacy among women entrepreneurs: Cognitive approach of strong financial knowledge, financial skills and financial responsibility. *Information Management and Business Review*, 16(1), 1–10. [https://doi.org/10.22610/imbr.v16i1\(I\).3718](https://doi.org/10.22610/imbr.v16i1(I).3718)
34. Thébaud, S., & Sharkey, A. J. (2016). Unequal hard times: The influence of the Great Recession on gender bias in entrepreneurial finance. *Administrative Science Quarterly*, 61(1), 57–93. <https://doi.org/10.1177/0001839215590158>
35. van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84, 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
36. Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), 165–184. <https://doi.org/10.1111/j.1540-6520.2010.00427.x>
37. World Bank. (2022a). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>
38. World Bank. (2022b). *Women, business and the law 2022*. World Bank. <https://doi.org/10.1596/978-1-4648-1817-2>
39. World Bank. (2023). *Women, business and the law 2023*. World Bank. <https://hdl.handle.net/10986/39462>
40. World Bank. (2024). *Women, business and the law 2024*. World Bank. <https://doi.org/10.1596/978-1-4648-2063-2>
41. World Bank. (2026). *Women, business and the law 2026: Benchmarking laws for jobs and inclusive growth*. World Bank. <https://doi.org/10.1596/978-1-4648-2196-7>