

## Women Entrepreneurship In Developing Countries: A Bibliometric Analysis

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### ABSTRACT

Women's entrepreneurship has witnessed substantial evolution, shaping the trajectory of entrepreneurship research. This paper presents a bibliometric analysis to define the state of research related to women entrepreneurship. To better grasp the frontiers a total of 489 articles from the Scopus database were selected and analyzed. The inclusion criteria applied were document type, publication stage and language. The study identified the thematic connections among the literature through co-citation analysis. Additionally, imminent areas in women entrepreneurship and future trends in women entrepreneurship has been analyzed through co-word analysis through VOS viewer. Key findings showed four primary co-citation clusters: 'Women entrepreneurs' challenges in developing countries', 'Growth of female-driven entrepreneurship', 'Gender disparities in entrepreneurship' and 'Driving force behind Female Entrepreneurship.'. Furthermore, co-word analysis revealed four significant themes such as 'entrepreneurial empowerment of women', 'elements influencing women's entrepreneurship.', 'innovation and advancement in entrepreneurship' and 'employment orientation and performance of women entrepreneurs'. The findings of the study provide guidance for academics and practitioners, overcoming the barriers and highlighting potential opportunities in entrepreneurship, particularly in developing countries. We conclude with limitations and suggestions for future work.

**Key Words:** women entrepreneurship, gender, developing countries, bibliometric analysis, Co-word analysis, Co-citation analysis

### INTRODUCTION

Entrepreneurship has demonstrated its potency as a productivity booster (Zanjirchi et al., 2019) and formidable driver of both national economic growth and the promotion of sustainable development agendas (Mas-Tur et al., 2021). The world of business and entrepreneurship is not a proprietorship of men. As colonists of half the planet's surface, women have the equal rights to also engage themselves in the business world (Setyaningrum et al., 2023). Despite the fact, women involvement in specific sectors like entrepreneurship is disproportionately low (Joyce et al., 2021; Strawser et al., 2021). As a repercussion, there is a growing interest in the topic of gender equality and women's empowerment within the field of business and management (Beloskar et al., 2024). Many researchers including Sahu et al., (2021) have noted the contribution of women entrepreneurship as a significant aspect for the growth of developing countries. The involvement of women in economic development and nation-building is now seen not merely as a matter of human rights or social justice, but as an essential element within the ecosystem striving for sustainable development (Foss et al., 2019). Their presence in the workforce is not just noteworthy but imperative for job creation and economic progress, especially in developing countries (Welsh et al., 2018). However, Ahl (2006) discovered that women entrepreneurs were perceived as secondary to men in all of the publications examined in an investigation meant to look into how academics support the maintenance of preconceptions about female entrepreneurship.

Women's entrepreneurship in developing nations has been the subject of numerous studies (Ahl, 2006; Jamali, 2009; De Vita et al., 2014; Panda, 2018). Krieger (2022) elucidated that despite women surmounting men in many deftness, they fall back in terms of relevant educational background and work experience. The support of many studies throws light upon the issues faced by women entrepreneurs including social and cultural conventions, (Heintz et al., 2018), bureaucratic obstacles, striking a balance between work and family obligations (Minniti and Naude (2010), developing healthy relationships or networking for financial support (Jaim, 2021), resource acquisition (Singh and Kaur, 2021), government initiatives (Serrano, 2023) and getting contracts.

There hasn't been much of an encouraging trend in women becoming business owners. Few reported promising supportive factors consist of adaptability of technology and social media (Kamberidou, 2013) which serves as a platform to excel in their job in the 21st century. On the other hand, many researchers have focused on women empowerment which refers to a technique to realize gender equality (Floro, 1995; Reddy et al., 2003) which not only renders an opportunity to women to authenticate their participation in business but also validates their contribution in overall economic growth of the nation. Additionally, financial support from self-help groups (Ghosh et al., 2023), grameen banks (Hashemi et al., 1996; Orser et al., 2006), institutional support (Naser et al, 2009; Banu & Baral, 2021) and territorial community support as extrinsic factors are also recognised as empowering factors. Chen and Barcus (2024) examined how rural women entrepreneurs have developed their social networks to avail entrepreneurial resources, skill development, knowledge gaining to clinch flexibility to embrace new environment and surrounding professional situations. Some other literature also noted the support of family as a backbone to women entrepreneurs to amplify their emotional wellbeing, confidence and underpins to collaborate with other entrepreneurs (Makandwa & Klerk 2024, Qurban Jan et al., 2023, Zhu et al., 2019).

The present study intends to give a thorough summary of scholarly contributions and draw attention to significant research trends. It seeks to provide information on methods for bolstering and amplifying the influence of female entrepreneurs in developing nations to scholars, practitioners and policymakers. This bibliometric study will serve as a guide for future research work and initiatives. To create cognizance among concerned professionals pertaining to women entrepreneurs, the present article is structured in the following manner: Initially, the facilitators and constraints for women entrepreneurs in developing countries will be discussed. Further, the research material and method, including the Scopus database search strategy, application of bibliometric analysis, co-word analysis, and co-citation analysis, will be discussed. The major findings of the analysis, the present study's shortcomings, and the direction for future research will next be presented.

## **LITERATURE REVIEW**

Research pertaining to women entrepreneurship started gaining popularity in the last decade of the twentieth century (Rizvi, 2023). It can be separated through many standpoints focusing upon progression in the field, challenges and constraints for women entrepreneurs, entrepreneurial facilitators or reinforcers, role of technology and digitalization etc. The review of literature is motivated by two premises: firstly, it aims to provide the perspective of women entrepreneurial constraints and secondly, the facilitating aspects which pave the way for them.

The idea that women cannot step into the business world is outdated. Gradually, women have marked their footfalls in many ventures. Plethora of available literature pinpoints their entrepreneurial journey much like a rose surrounded by thorns. A survey of Chinese women reflected that entrepreneurial decision as a career is still difficult and urges limitless expectations if chosen, which in turn creates mental pressure (Dewitt et al., 2023). In the developing countries, where still, the society is dominated by men, women are expected to perform and fulfill stereotyped roles only. In terms of socioeconomic freedom, Fauzi, (2023) and Akter et al., (2023) inferred that the dominant masculine power especially in patriarchal societies prevents women from engaging themselves in global commerce. Several constraints which hamper their expedition consists of gender discrimination (Vasileiou et al., 2023; Nigam & Shatila 2023; Brush, 2018, Treanor & Henry, 2010), availment of financial and other resources (Clark Muntean & Özkazanç-Pan, 2014), networking (Harrison et al., 2024) and social & family responsibilities (Gupta & Etzkowitz 2021, Jiang & Huang, 2023).

Ogundana et al., (2021) revealed money, market and management as crucial constituents for the business excellence however, household responsibilities including motherhood, socioeconomic and cultural factors make women's entrepreneurial journey rocky. Hussenini (1997) reported gender divergence in terms of size of the business and funding assistance from the market. In both aspects, women entrepreneurs are lagging behind men. Similarly, in terms of access to business networks, partnerships, venture expansion through joint ventures, merger and acquisition, women are disadvantaged due to less memberships and higher positioned presence of women at the commerce and industry platforms (Jamali, 2009).

As women entrepreneurship has significantly contributed to economic progression, it is important to properly investigate the facilitators which laid the foundation for their success (Sajjad, 2020).

Brush & Cooper (2012) and Patil & Deshpande (2018) acknowledged women entrepreneurship as the fastest growing business especially in developing countries for employment generation and thereby poverty reduction (Zeb and Ihsan, 2020), means of wealth generation, tool for self- realization and self-independence (Vukovic et al., 2023). Aidis et al. (2007) also highlighted the constructive outcome of female entrepreneurship as women's empowerment - which promotes a sense of self-efficacy, awakened, judicious, goal oriented and well informed (Wilson, 2022). Self-help groups also encourage women empowerment by providing an access to intellectual resources including data, facts, ideas, current trends, prevailing social, economic, political and legal situations (Alemu et al., 2018).

Excellence in entrepreneurs' performance in terms of growth and quality of service can be achieved through self-efficacy. Supportive measures to improve self-efficacy have been discussed by Sahu et al. (2024). They concluded the positive impact of proper internet connectivity, usage of information, communication technology (ICT) and of government programs for rural women entrepreneurs of developing countries. Likewise, Leila, (2019); Taleb, et al. (2023) noted the significant impact of technological knowledge, innovation and entrepreneurial resources on business performance.

Enough research is available showcasing the role of family in the progression of women entrepreneurs. In the entrepreneurial journey of women, family act not only as obligations but also as a source of mental support and resource

allocator (Ram & Holliday, 1993; Dyer & Handler, 1994; Dumas, 1998; McElwee & Al-Riyami, 2003; Zamberi, 2011). Besides, family and friends provide more financial support to women as they are less likely to procure loans from the other sources. Consequently, women entrepreneurs have a lower debt finance ratio compared to men. Scott, 1986; Caputo & Dolinsky, 1998; Hughes, 2003 have clearly stated that the family stood as the backbone at every stage of women's entrepreneurial journey. It shapes women's entrepreneurial decision which can be categorized as 'Push' and 'Pull' factors:

**'Push' factors:** which debar women to start their professional career including unemployment, financial constraints, redundancy, family circumstances and responsibilities.

**'Pull' factors:** creates constant enthusiasm for entrepreneurs to unlock the favorable outcomes that lie ahead of them. It ignites the passion among women to lead and manage their own business, need for independence, self-resilience and self-efficacy (Yunis et al., 2019; Dhar et al., 2022).

Through the comprehensive examination of articles pertaining to women entrepreneurs, prevailing trends in entrepreneurship, especially in developing countries, this study aims to outline recurrent themes and research trends through bibliometric analysis. Within this context, the central question that guides this study is the identification of ascendant subjects and immanent thematic constructs in the women's entrepreneurship research domain. Following subsequent research objectives can provide the framework for the study:

- 1.To study the thematic connections among the literature pertaining to women's entrepreneurship through co-citation analysis.
- 2.To identify the dominant topics and imminent areas in women entrepreneurship and highlight the future trends in women entrepreneurship through co-word analysis.

## MATERIALS AND METHODS

### *Bibliometric Analysis*

Today, research in any discipline is growing at a dizzying rate. To keep updated with the latest research scenarios, especially in one's own area of research is the utmost necessity of every researcher. The bibliometric methodology serves as radar and allows professionals to stay apace with development (Koseoglu et al., 2016, Mota et al., 2024), emergence of prominent themes (Rojas-Lamoren et al., 2022), map and link the relationship between different research themes, publications, authors, countries, and institutions, measure the collaboration pattern (Shanmugam, 2010, Zupic & Cater, 2015), research gap identification (Devi & Srivastava, 2023), recognition of most popular articles, predict future research direction, to highlight the productivity of an author and highly cited articles. Though the bibliometric analysis method is not new, its proliferation is fairly contemporary (Donthu et al., 2021).

Bibliometric methodology has been applied in many research fields namely business and management (Budler et al., 2021; Ferreira et al., 2021), technology and digitalization (Buddhikot et al., 2023, Díaz-García, 2022), agriculture (Mühl & de Oliveira, 2022, Li, et al., 2022), medical science (Thomas et al., 2024, Pei et al., 2022), green marketing and sustainability (Yufei et al., 2024; Brown, 2024), agriculture (Ihwan et al., 2024), tourism (Quiao et al., 2022; Sigala et al., 2021) etc.

### *Co - citation Analysis*

Co-citation analysis, which looks at how frequently two papers are cited together in academic literature, is a useful technique in bibliometric research (Small, 1973). This method reveals the strength of linkages and thematic similarities between papers, offering insights on their intellectual connections (Fang et al., 2023)(White & McCain, 1998). Co-citation analysis helps researchers discover key works and follow the progress of research topics to better comprehend the evolution of scientific knowledge (Trujillo & Long, 2018). Moreover, it facilitates the mapping of scientific domain structure and the identification of new (Chen et al., 2010). Using co-citation analysis in research helps researchers better understand the academic environment, which promotes strategic planning and well-informed decision-making.

### *Co - word Analysis*

In bibliometric investigations, co-word analysis is a potent technique used to identify semantic links and thematic trends in a corpus of literature (Callon et al., 1983). By locating and examining word co-occurrences in scientific publications, this method sheds light on the composition and development of research themes. Researchers can evaluate the interdisciplinary nature of study domains, map the intellectual structure of a field, and spot new trends by looking at the co-occurrence of phrases (Borner et al., 2003). Understanding the dynamics of scientific knowledge and directing strategic decision-making in research and development are two areas in which co-word analysis is very helpful.

### *Search Strategy and Sample Selection*

The current study extracted bibliometric data from the Scopus database. Scopus is a comprehensive bibliographic database source hosted by Elsevier. It covers 330 disciplines, more than 94 million records, 2.4 billion cited references and 7000 publishers (Elsevier, 2023). The database not only offers essential choices but also provides an option to filter out the designated articles related to the study objectives. Additionally, it yields result analysis to the researcher to envisage and compare the available information to make a descriptive analysis (Ferreira et al., 2018). The selected search string was

applied to Scopus database consisting of three main domains “women”, “entrepreneur” and “developing countries” (Table 1) using the “AND” Boolean connector and including article title, abstract, keywords as a search field, with no time margins. The sample search and article retrieval was conducted on 10 January 2024. A total of 586 documents were generated between 1976 and 2023.

**Table 1. Search string adopted in Scopus database**

String	Justification
"woman" OR "women" OR "female"	To get insight into the previous research published pertaining to women
"entrepreneur" OR "entrepreneurship"	To identify the research carried out related to entrepreneurs
"developing countries" OR “emerging economy” OR “emerging economies”	To classify the literature on developing countries

Source: Authors' own elaboration

**Table 2. Characteristics of bibliometric study**

Database	Scopus
Search field	Article Title, Abstract, Keywords
Total no. of articles (without applying any filters)	586
Time horizon	1976-2023
Document Type	Articles, Conference paper, Review articles
Publication stage	Final and Article in Press
Language	English
Total no. of articles (after applying above mentioned filters)	489
Analysis Tool	VOS viewer for Co-word and Co-citation network mapping

Source: Authors' own elaboration

### Data analysis

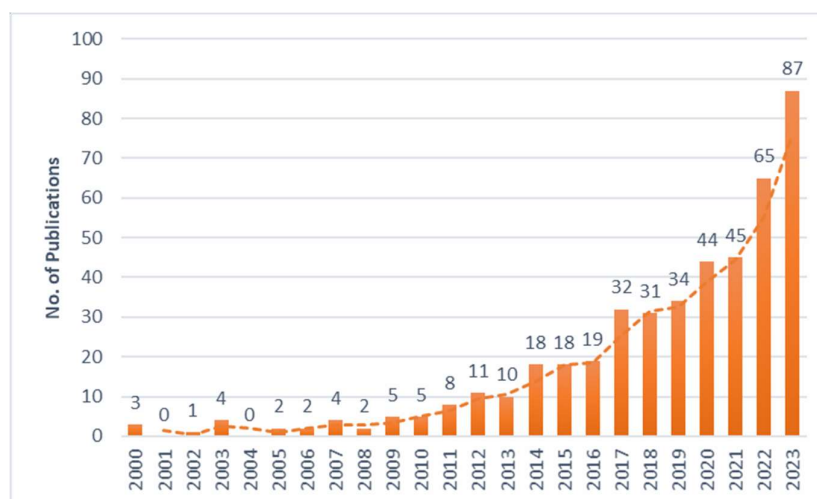
VOS viewer software version 1.6.20 was utilized for bibliometric analysis. The software is useful for many reasons including knowledge map creation, data visualization of co-occurrence of keywords, co-citation of references, country collaborations for similar research areas, identification of most influential journals, authors, papers and themes. (van Eck & Waltan, 2014; Niknejad, 2023).

## RESULTS AND DISCUSSION

### Descriptive Analysis

Figure 1 manifests the advancements of scientific research on female entrepreneurs over the years. Though the research in this area has been started since 1976 (only single article published in this year), till next seven years, not a single article has been published and embodied in the Scopus database. This research area has started gaining momentum mainly since 2012, registering a significant number of articles (n = 11) and reaching its highest peak of publications in 2023 (n = 87). This climb suggests a shift in the researchers' interest especially in the area of women entrepreneurship as a well-grounded trend.

**Figure 1. Timeline of number of publications per year**



Source: Authors' clarification based on Scopus data (as of January 16, 2024)

**Table 3. Document profile in Scopus database**

Document profile	Total publications	Percentage
Article	440	89.98
Review	33	6.7
Conference paper	16	3.3
Total	489	

Source: Authors' clarification based on Scopus data (as of January 16, 2024)

### Co-word Analysis

Co-occurrence of keywords has been used to identify the 'research front' related to women entrepreneurship in developing countries. A research front can be referred to as core articles in a specific domain or a cluster of highly cited articles. From 2091 keywords, 134 met the threshold minimum 5 times. The highest co-occurrence keywords were 'developing countries' (113) followed by the word 'entrepreneurship' (84) and 'women entrepreneurs' (77) and so on. The list of top 15 keywords with total link strength of each keyword is presented in Table 4. The network visualization of keyword co-occurrences is presented in Figure 2.

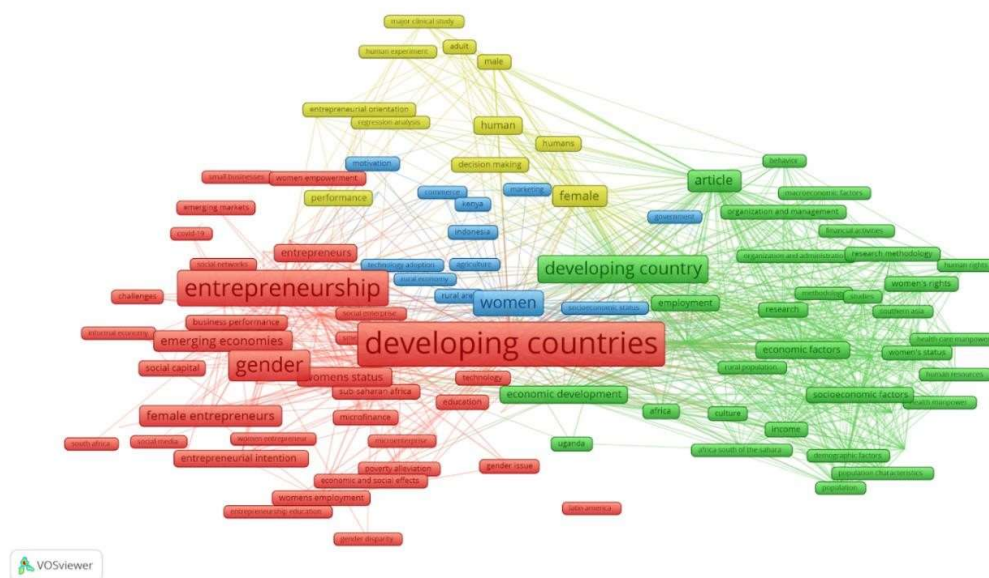
**Table 4. Top 15 keywords in the co-occurrence of keywords analysis**

Ranking	Keyword	Occurrence	Total Link Strength
1	developing countries	113	671
2	entrepreneurship	84	258
3	women entrepreneurs	77	247
4	gender	66	190
5	developing country	53	513
6	women	47	253
7	entrepreneur	45	261
8	women entrepreneurship	41	88
9	female entrepreneurship	34	73
10	article	33	456

11	female	32	335
12	emerging economies	32	80
13	female entrepreneurs	30	79
14	economics	30	376
15	developing word	28	156

*Source: own elaboration*

### Figure 2. Co-word analysis



*Source:* VOS viewer visualization

From the co-word analysis network, it can be portrayed that there are four distinct clusters. Based on the author's qualitative evaluation, each cluster was given a label based on the link of the keywords that appeared. Each cluster's attributes are evaluated and explained as follows:

**Cluster (Red):** There were 34 keywords in cluster and it is labeled as ‘**entrepreneurial empowerment of women**’ Aidis et al., (2007) also highlights the positive effects of female entrepreneurship on women's empowerment, including increased income, autonomy, and decision-making power. The study suggests that supporting female entrepreneurship can contribute to economic growth and gender equality in transition economies. It has been emphasized that governments should frame policy about training, networking and educational initiatives specifically designed with women in consideration (Hennink et al., 2012; El-Ficky, 2023; Digan et al., 2019). Self-employment is the leading goal of women's

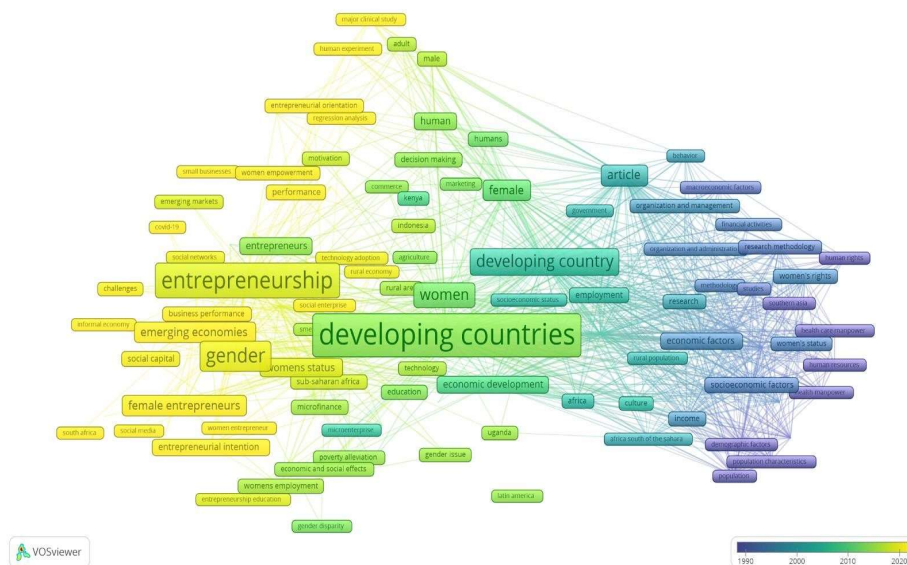
empowerment (Vukovic et al., 2023) and evidence suggests that informal entrepreneurship has contributed to the increased ability of women to make decisions regarding resource allocation and time management but the decisions are not strategic and collective thereby women's empowerment remains an individual process (Pineda & Castiblanco, 2022). However, the empowerment of women at the household and community level was enhanced through formalization, particularly among younger and more educated women (Thapa & Xheneti, 2018).

**Cluster (Green):** There were 31 keywords in cluster and it is labeled as **'elements influencing women's entrepreneurship.'** Aidis et al. (2007) finds that female entrepreneurship is influenced by a combination of individual, social, and institutional factors. Mordi (2010) found that cultural values such as gender roles, patriarchy, and societal expectations significantly influence the challenges faced by women in entrepreneurship. The study highlights the importance of understanding cultural values in addressing the barriers faced by female entrepreneurs in Nigeria. Personal (self-efficacy, motivation, and risk-taking propensity), social (social support, networks, and mentorship), environmental (access to resources, government policies, and cultural norms) and psychological factors (mindset, resilience, and adaptability) are the factors beyond entrepreneurial success of women (Feng et al., 2023). Self- efficacy, social support, and perceived opportunities significantly influence the intention of female entrepreneurs (Qurban Jan et al., 2023). Ramadani et al., (2022) suggests that gender plays a significant role in shaping the relationship between entrepreneurship education and entrepreneurial intentions. Brush et al., (2009) presents a gender-aware framework for understanding women's entrepreneurship. The framework proposed in this study takes into account the gendered nature of entrepreneurship and highlights the importance of social and cultural factors in shaping women's entrepreneurial activities. The need for gender-aware policies and support systems to promote women's entrepreneurship was emphasized. Gupta et al., (2009) suggested that gender stereotypes significantly impact the perceptions of entrepreneurs.

**Cluster (Blue):** There are 12 keywords in cluster and it is labeled as **'innovation and advancement in entrepreneurship'** There is a belief that women who possess innovative qualities can excel not only in entrepreneurship but also in various other areas of life (Lemaire et al., 2021). Entrepreneurial resources, especially technical resources, have a positive and significant impact on innovation capability and improve business performance (Taleb et al., 2023). Social media's influence on self-efficacy is evident in the way it facilitates networking and business activities from home, ultimately fostering a positive impact on the lives of women entrepreneurs, both personally and professionally, thereby contributing to the increasing adoption rate of social media (Mandawala et al., 2023, Choudhury, 2021; Camacho & Barrios, 2022; Beninger et al., 2016). Amidst the challenges posed by COVID-19 pandemic, women entrepreneurship has found new avenues for growth through digital marketing on various online platforms. The shift towards online trading has become a pivotal aspect, allowing women entrepreneurs to leverage digital platforms for reaching wider audiences and sustaining their businesses. In this dynamic landscape, digital marketing plays a crucial role in empowering women entrepreneurs to navigate the online realm and achieve success in the evolving market (De Oliveira Malaquias et al., 2023; Ainin et al., 2015; Mouazen et al., 2023, Hashim et al., 2023).

**Cluster (Yellow):** There are 11 keywords in cluster and it is labeled as **'employment orientation and performance of women entrepreneurs'**. Kraja & Berberi (2023) in their study found that there is a positive relationship between the women's motive to be independent and its impact on their performance as an entrepreneur. Anggadwita et al., (2021) discovered entrepreneurial orientation can be enhanced by socio-cultural environment and social perceptions. Women entrepreneurs seem to drive and mold their entrepreneurial endeavours in a way that their business success significantly contributes to support their family's financial well-being (Mozumdar et al., 2023). The results of Welsh et al., (2018) indicate that firm's performance is positively impacted by entrepreneurial orientation, and both social capital and institutional support exert a substantial indirect influence on firm performance through their effects on entrepreneurial orientation. Furthermore, the study observes that the adverse environment acts as a negative moderator, weakening the relationship between entrepreneurial orientation and firm performance. The study conducted by Sallah & Caesar (2022) examines the performance of Ghanaian women in the business community and investigates the moderating role of social competence. The authors found that social competence positively influences the performance of women-owned businesses in Ghana. They also discovered that social competence acts as a significant moderator, strengthening the relationship between entrepreneurial orientation and business performance.

**Figure 3. Temporal overlay on a keyword co-word occurrence map**





Temporal overlay on a keyword co-word occurrence map (figure 3) depicts a shift in the international research. The figure shows a shift of growing research subject from demographic and socioeconomic issues (keywords highlighted in purple and blue colour: income, health, financial activities, population) to better entrepreneurial platform for women that not only bridges the gender gap but also promise better economic growth (keywords highlighted in yellow colour women empowerment, technology adoption, social media, entrepreneurial intention, emerging markets, performance). This shift depicts growing emphasis on sensitive issues related to women entrepreneurship that promises gender equality and digitalization which is essential for economic growth.

### Co-Citation Analysis

Citation analysis has been employed to find linkages between publications, citations and to navigate the most influential publications in a specific field (Bang et al. 2023). Out of a total pool of 27032 cited references, 37 have garnered a minimum of 10 co-citations. The highest co-cited publications were De Vita et al. (2014) (29 times), Ahl, H. (2006) (28 times), Jamali (2009) (27 times). Table 5 lists the top 10 documents with the highest co-citation with their total link strength. Furthermore, Figure 4 encapsulates the co-citation network representing the cluster, related citations and node's strength. Consequently, Density visualizations have been picturised in Figure 5 It provides a quick overview of the main areas in a bibliometric network.

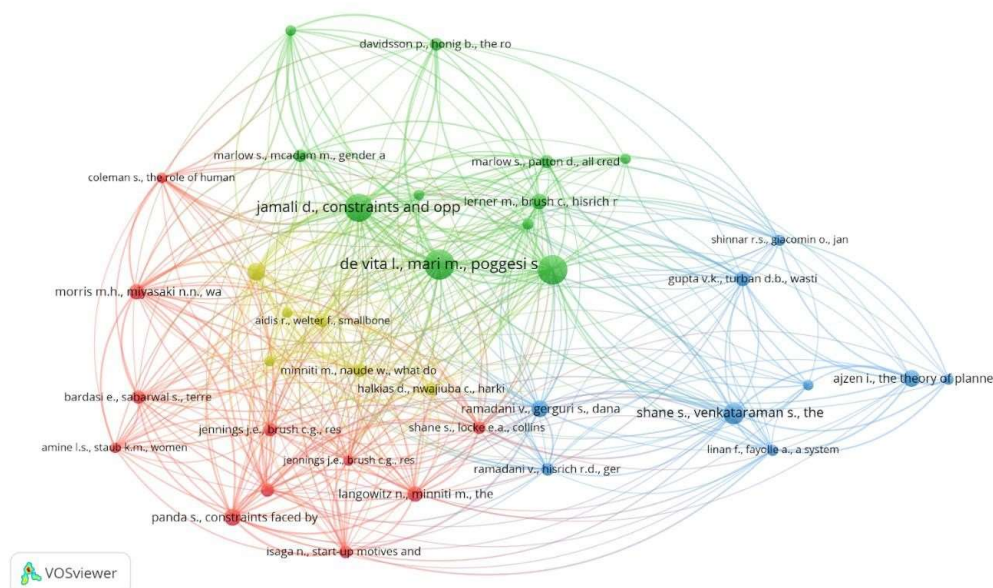
**Table 5. Top 10 documents in women entrepreneurship with highest co-citation and total link strength**

Ranking	Document	Occurrence	total Link Strength
1	De Vita, L., Mari, M., & Poggesi, S. (2014). Women entrepreneurs in and from developing countries: Evidences from the literature. <i>European Management Journal</i> , 32(3), 451–460. <a href="https://doi.org/10.1016/j.emj.2013.07.009">https://doi.org/10.1016/j.emj.2013.07.009</a>	29	105
2	Ahl, H. (2006). Why Research on Women Entrepreneurs Needs New Directions. <i>Entrepreneurship Theory and Practice</i> , 30(5), 595-621. <a href="https://doi.org/10.1111/j.1540-6520.2006.00138.x">https://doi.org/10.1111/j.1540-6520.2006.00138.x</a>	28	96
3	Jamali, D. (2009), Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. <i>Gender in Management</i> , 24(4), 232-251. <a href="https://doi.org/10.1108/17542410910961532">https://doi.org/10.1108/17542410910961532</a>	27	108
4	Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. <i>The Academy of Management Review</i> , 25(1), 217–226. <a href="https://doi.org/10.2307/259271">https://doi.org/10.2307/259271</a>	20	51
5	Brush, C.G., de Bruin, A. and Welter, F. (2009). A gender-aware framework for women's entrepreneurship. <i>International Journal of Gender and Entrepreneurship</i> , 1 (1), 8-24. <a href="https://doi.org/10.1108/17566260910942318">https://doi.org/10.1108/17566260910942318</a>	17	87
6	Panda, S. (2018). Constraints faced by women entrepreneurs in developing countries: review and ranking. <i>Gender in Management</i> , 33 (4), 315-331. <a href="https://doi.org/10.1108/GM-01-2017-0003">https://doi.org/10.1108/GM-01-2017-0003</a>	16	60

7	Ramadani, V., S. Gërguri, L. P. Dana, and T. Tašaminova. (2013). Women Entrepreneurs in the Republic of Macedonia: Waiting for Directions. <i>International Journal of Entrepreneurship and Small Business</i> 19 (1): 95–121. <a href="https://doi.org/10.1504/IJESB.2013.054330">https://doi.org/10.1504/IJESB.2013.054330</a>	16	50
8	Ajzen, I. (1991). The theory of planned behavior. <i>Organizational Behavior and Human Decision Processes</i> , 50(2), 179–211. <a href="https://doi.org/10.1016/0749-5978(91)90020-T">https://doi.org/10.1016/0749-5978(91)90020-T</a>	16	32
9	Morris MH, Miyasaki NN, Watters CE, Coombes SM (2006). The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs. <i>Journal of Small Business Management</i> , 44(2), 221– 44. <a href="https://doi.org/10.1111/j.1540-627X.2006.00165.x">https://doi.org/10.1111/j.1540-627X.2006.00165.x</a>	15	67
10	Langowitz, N., & Minniti, M. (2007). The Entrepreneurial Propensity of Women. <i>Entrepreneurship Theory and Practice</i> , 31(3), 341-364. <a href="https://doi.org/10.1111/j.1540-6520.2007.00177.x">https://doi.org/10.1111/j.1540-6520.2007.00177.x</a>	15	62

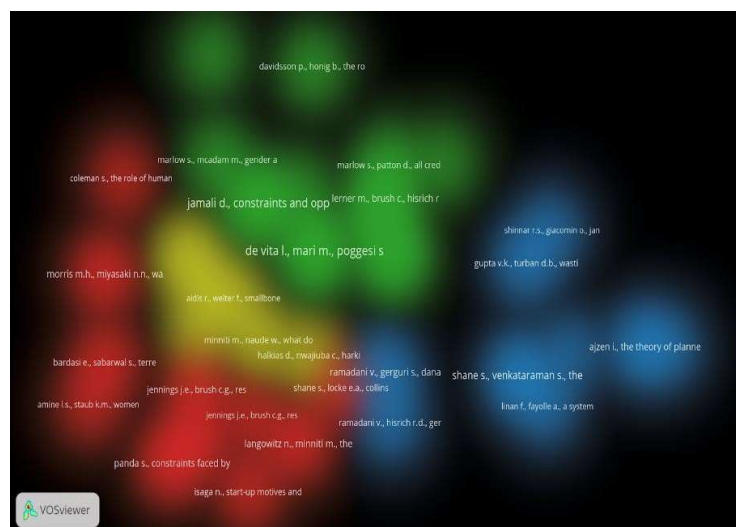
Source: own elaboration

Figure 4. Co-Citation of Cited References



Source: VOS viewer visualization

Figure 5. Density Visualization of Co-citation of Cited References



Source: VOS viewer visualization

The following sections describe each cluster with labels depending on the author's inductive opinion.

Cluster 1 (Red) was labeled **'Women entrepreneurs' challenges in developing countries.'** Jennings & Brush (2013) emphasized the importance of considering contextual factors in understanding women entrepreneurs. Factors such as culture, social norms, and institutional structures significantly influence the experiences and challenges faced by women entrepreneurs. Amine & Staub (2009) in their study examines the role of institutional factors in shaping the experiences and challenges faced by women entrepreneurs in sub-Saharan Africa. The authors argue that social marketing can be used as a framework to understand the institutional barriers and opportunities faced by women entrepreneurs in this region. They find that cultural norms, social networks, and access to resources significantly impact the success and growth of women-owned businesses. Panda (2018) identified seven key constraints faced by women entrepreneurs, including gender discrimination, work-family conflict, difficulty in raising capital, lack of infrastructure, unstable business, economic and political environments, lack of training and education, and personality differences. Jamali (2009) in his study examines how the success of women entrepreneurs in developing countries is shaped by their relationships with stakeholders, emphasizing the impact of connections with family, community, and institutions. While identifying constraints like limited financial resources and cultural biases, the study underscores the opportunities arising from supportive relationships, highlighting the significance of understanding the relational context to effectively address challenges and leverage available opportunities.

Cluster 2 (Green) was labeled **'Growth of female-driven entrepreneurship.'** Ahl (2006) argues that research on women entrepreneurs needs to explore new directions. The author suggests that future research should adopt a more nuanced approach, considering the intersectionality of gender with other social categories such as race, class, and sexuality. The author also emphasizes the importance of studying women entrepreneurs in diverse contexts and exploring the influence of social structures and institutions on their experiences. Jamali (2009) gains understanding of the obstacles and difficulties faced by Lebanese women and establishes the importance of micro, meso, and macro-level elements on the complexity that women entrepreneurs must contend with. De Vita et al. (2014) present a systematic literature review on women entrepreneurs in developing countries. Barriers are different based on geographical location, including social and cultural factors.

Cluster 3 (Blue) was labelled **'Gender disparities in entrepreneurship'** Shane & Venkatraman (2000) proposes that entrepreneurship research should focus on understanding the processes and mechanisms that lead to the creation of new ventures. The study by Gupta, et al., (2009) explores the influence of gender stereotypes on individuals' perceptions of entrepreneurs and their intentions to become entrepreneurs. The authors aim to understand how gender stereotypes shape people's attitudes towards entrepreneurship and whether these stereotypes affect individuals' aspirations to engage in entrepreneurial activities. Anggadwita et al. (2021) explored the role of the socio-cultural environment on women's entrepreneurial behavior in Indonesia. The findings show that women entrepreneurs need to overcome socio-cultural environment issues, especially in a multi-diverse socio-cultural environment like Indonesia. Panda (2018) finds that women entrepreneurs in developing countries face a higher intensity of challenges compared to their male counterparts. Asravor & Acheampong (2021) study investigates the factors that influence risk attitudes among entrepreneurs in Ghana, with a specific focus on the role of gender. The authors find that gender significantly influences risk attitudes, with female entrepreneurs being more risk-averse compared to their male counterparts.

Cluster 4 (Yellow) was labeled **'Driving force behind Female Entrepreneurship.'** Aidis et al., (2007) analyzed factors influencing female entrepreneurship and the impact of entrepreneurship on women's empowerment and economic development in these countries. Minniti & Naude (2010) suggests that female entrepreneurs often have different

motivations and characteristics compared to their male counterparts. Women are more likely to start businesses out of necessity rather than opportunity, and they tend to prioritize work-life balance and family responsibilities. Working from home in spare time and becoming financially independent is a motive behind women entrepreneurs is trending (Kraja & Berberi, 2023). Self- efficacy (Zhu et al., (2019), Alexandre et al., (2019), Isaga (2019), Pascher et al., (2015), family support (Qurban Jan et al., 2023, Zhu et al., 2019) and institutional support (Naser et al, 2009; Banu & Baral, 2022) act as important driving force to pursue entrepreneurship as a career.

#### Country analysis of the women entrepreneurship literature

Research collaboration among authors, institutions, universities and countries are the few most common trends in publications. Co-authorship country collaboration indicates the list of influential countries working on similar domains. Top 10 countries ranked based on documents and citations and total link strength are illustrated in Table 6.

**Table 6 Country Collaboration Analysis**

<i>Sr. No.</i>	<i>Country</i>	<i>Documents</i>	<i>Citations</i>	<i>Total Link Strength</i>
1	United States	75	2760	48
2	United Kingdom	59	1774	33
3	India	56	593	17
4	South Africa	26	279	9
5	Malaysia	25	136	11
6	Bangladesh	23	237	14
7	Pakistan	22	446	17
8	China	20	302	12
9	Australia	19	573	8
10	Ghana	16	177	5

**Figure 6. Country Collaboration Network Map**

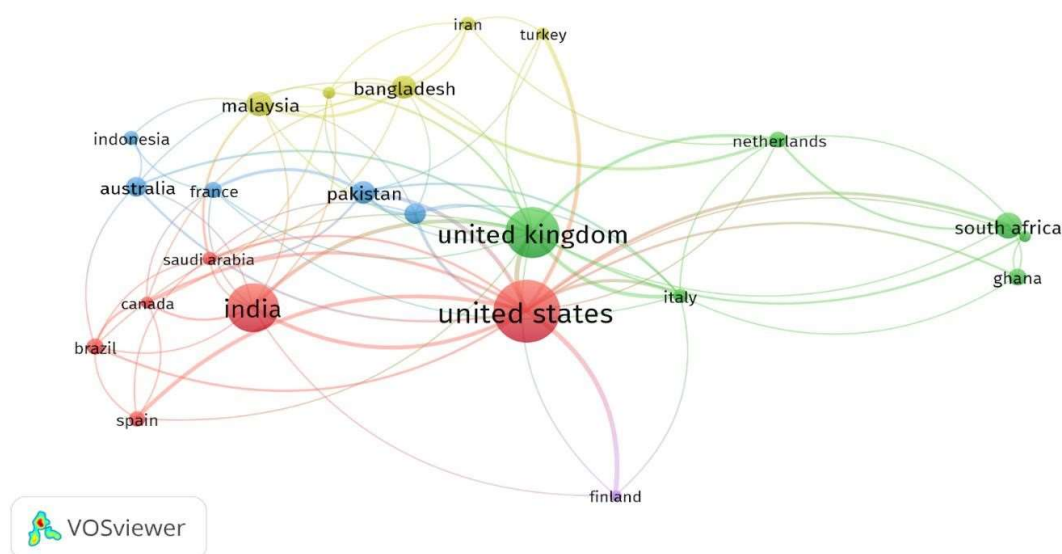


Figure 6 highlights the country collaboration network map to discern the highest collaboration pattern among researchers worldwide. The network of co-authorship countries publishing on women entrepreneurs encompasses 100 countries. By imposing a minimum number of 10 documents with at least 20 citations per nation, 23 countries met the threshold into 5 distinct clusters. Compared to other countries, the cooperation network among the United States, United Kingdom and India is prominent.

## CONCLUSIONS

The central objective of the study was to conduct a bibliometric study on women entrepreneurship. To attain this purpose, 489 research publications were screened from Scopus database and analysed in VOS viewer software. Through bibliometric analysis, this study uncovered thematic patterns and emerging trends in the field of women entrepreneurship. The study illustrated that approximately 56% research publications were released in the last five years comprising around 90% articles, 6% reviews and 3% conference papers. The United States, United Kingdom and India are the three prominent countries in terms of the quantity of published articles and citations. Additionally, 'research front' has shown the shift in the interest of researchers' community, from demographic and socioeconomic issues to a better entrepreneurial platform for women that not only bridge the gender gap but also promise better economic growth. Our study identified four clusters in co-citation and co-word analysis which fairly depicts important areas to be analyzed in this field. Keyword cluster analysis revealed the common themes namely 'entrepreneurial empowerment of women', 'elements influencing women's entrepreneurship', 'innovation and advancement in entrepreneurship' and 'employment orientation and performance of women entrepreneurs'. Co-citation analysis clusters represented 'Women entrepreneurs' challenges in emerging nations', 'Growth of female-driven entrepreneurship', 'Gender disparities in entrepreneurship' and 'Driving force behind Female Entrepreneurship.'

Women are now proficient in decision making and resource allocation, income generation and time management (Aidis et al. 2007, Pineda et al., 2022). Despite challenges like socio-cultural norms, stereotypes, and institutional barriers, women entrepreneurs significantly contribute to economic growth, poverty reduction, and community development in developing countries through job creation, income generation, and social empowerment. Gender's impact on a venture's performance is the most important issue that researchers worldwide have identified (Fayaz et al., 2022; Deng et al., 2021; Fauzi et al., 2023). In accordance with these studies, 'gender' is the most significant aspect that influences entrepreneurship in our study. Women's entrepreneurship initiatives, like networking events, mentorship programmes, and customized support services, have the potential in addressing the particular requirements and limitations faced by female entrepreneurs. To address gender disparities in developing countries, research on female entrepreneurship should take historical, cultural, and social factors into account. It is important to emphasize the differences between male and female entrepreneurs in order to identify obstacles, refine support systems, unlock untapped potential, and provide insights for policymaking. The current investigation also illustrates the evolution of research in this field, spanning from the early 1990s to the present (figure 3). It has shifted from the challenges (cultural norms and gender stereotypes, influenced by social expectations, family responsibilities, discriminatory practices, limited access to financial resources, education, training, and networks) to innovation and the adoption of digital technologies after COVID-19. Social media platforms have emerged as powerful tools for marketing, networking, and reaching new customer segments. This digital transformation offers new ways for women entrepreneurs to adapt to changing market dynamics and improve their competitiveness in the post-pandemic era. To achieve this, it is important to provide digital literacy training for women in rural areas. This training will equip them with the necessary skills and knowledge to effectively use digital technologies and navigate the online landscape.

## LIMITATIONS AND FURTHER SCOPE

The current research is not free from certain limitations such as single database (Scopus) centered. Incorporation of multiple authentic databases can yield more comprehensive and rigorous results. Language filtration can restrict many research articles published in languages other than english. By broadening the language horizon, cross cultural aspect of entrepreneurship can also be explored. Though the time limit was not applied in the current study, the articles published till 2023 were incorporated in this study. Future research with a diverse timeframe can furnish a different picture. Bibliographic analysis may be biased in favour of older articles. Owing to the fact that, citation analysis emphasizes on the number of times an article is cited by others. It generates partial biasness for the recently published articles as they have less number of citations compared to older articles.

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