

The Missing of Communication Context on Womenpreneur Research between 1990 and 2022

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ABSTRACT

Profession as a businesswoman nowadays is becoming popular with promising flexible time conditions. Research in this field has also existed since the 1990s. The researchers conducted research in this field from various perspectives. There were various perspectives that emerged during this period, but in research on women entrepreneurs related to the business communication context was still very rarely carried out. This study tries to fill the gaps in research thinking about women preneurs by reviewing journal articles about women entrepreneurs published by Scopus with a period from 1990 to 2022. The study conducted a bibliometric analysis and total 577 articles retrieved from Scopus indexed databased. The analytical tools used are VOSviewer and NVivo 12 plus for describe the literature review. This study found eight important issues: women, business, entrepreneurial, gender, entrepreneurs, entrepreneurship, social, and development. The business communication context has yet to emerge on important issues in research trends between 1990 and 2022. The study suggested a future research to explore a proposition of keys issues and sub-issues from that eight important issues also explore to business communication. The value of the study showed how the issues of women preneur studies has been studied. Also contribute to know how many scholars, country, affiliation, keyword about women preneur issues that published at Scopus document. It is also important that the context of business communication has not yet appeared in research on women entrepreneurs globally.

Keywords: *Bibliometrics, business communication, NVivo analysis, VOSviewer, women preneur.*

INTRODUCTION

Women entrepreneurs are one of the big contributors to economic stability in Indonesia. Especially during the Covid-19 pandemic at the beginning of 2020, limited movement and activities outside the home while the necessities of daily life were still running, it was necessary to have income to meet needs. The movement of women entrepreneurs began to rise at that time. Businesses that are carried out from home but can still produce and meet the needs of life. The businesses carried out include trading in the culinary, fashion, beauty, retail, and several other businesses in the fields of crafts, education, travel. The power of women to support each other has an impact on the economic development of society.

These women entrepreneurs make it possible to empower human resources, especially women in their surroundings. This allows women to get opportunities for them to learn even with limited backgrounds and abilities. Assistance is carried out in order to provide new knowledge so as to produce the best products that are efficient, and get a decent living.

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Communication is an integral part of the business process. As Mancera et al. mentioned that the presence of communication then women will increase their entrepreneurial and innovative activities (Torres-Mancera et al., 2023).

Looking at the articles that have been published, there are still not many researchers who have made a mind map of the women preneur literature. As mentioned by Moreira (Moreira et al., 2019), the findings from the study of preneurs and internationalization are that different cultural contexts are important for determining the role of women entrepreneurs in international markets. Mat and Razak (2011) have tried to see environmental factors that have a greater influence on the activities of women preneurs than individual attributes.

The term womenpreneur refers to women who establish and manage their own business. This term has gained popularity in recent years, although women entrepreneur is a more widely used academic term. The concept of women entrepreneurship highlights not only women's participation in business but also their unique and contributions to entrepreneurial ecosystem.

Women entrepreneur play a significant role in economic stability, particularly in Indonesia. During the Covid-19 pandemic, many womenpreneurs emerged due to the necessity of earning income while mobility was restricted. Women-led business in culinary, fashion, beauty, retail, education, and travel sectors contributed to economic resilience. These entrepreneurs also empower other women by creating learning opportunities and financial independence.

Despite the growing body of research on women entrepreneurs, a structured bibliometric analysis identifying the key themes and trends in this field is still limited. Previous studies, such as Moreira et al. (2019), highlighted the importance of cultural context in shaping women's entrepreneurial roles. Mat and Razak (2011) argued that environmental factors influence womenpreneurs more than individual attributes. However, few studies focus on the role of communication in womenpreneurship. This study addresses this gap by conducting a systematic review of womenpreneurship research published in Scopus.

This article tries to fill the gap to understand various perspectives on the study of women preneurs. This study attempts to answer the question: Important issues and sub-topics of women entrepreneurs in social science journals published on Scopus. This study conducts a systematic study of women preneurs in the social sciences to answer this question.

METHODOLOGY

This study uses a qualitative method with literature study. Literature review is a method of scientific bibliographic analysis and is arranged systematically. This method includes the collection of bibliographical data relating to research objectives, collection techniques using the bibliographical method, and organizing and presenting data. Bibliometric studies, data can be obtained from primary, secondary, and tertiary journals covering a certain period and analysed from various angles to determine the distribution of institutional articles, citation patterns, writing patterns, and article length. Bibliometric analysis is a structured process for describing all published documents in a particular scientific discipline by identifying, organising, and analysing them in terms of quality, number, productivity, connectivity and citation (Gardazi et al., 2023). Bibliometric analysis is a quantitative analysis methodology that uses mathematical and statistical techniques to determine the relationships and effects of publications in a particular field of study (Ling et al., 2023). Based on Tan et al. (2024), their study systematically reviews research on social media use for political information between

2010 and 2020, highlighting political communication and participation as key themes, with uses and gratifications theory as the dominant framework, while identifying gaps in existing literature that require further exploration.

This study employs a qualitative literature review with bibliometric analysis. Bibliometrics systematically identifies, organizes, and analyses academic literature quantitative methods. It examines publication trends, citation patterns, and research themes. The Scopus database was selected as the primary data source due to its extensive coverage of peer-reviewed journals and academic citations.

This study aims to find out how the development of research on women entrepreneurs from 1990 to 2022, so the authors determine the time span of the year for data collection. The time span can then be seen as well as trends up to 3 decades. The data source used is the Scopus database. Then the data will be stored in RIS format, which will then be further processed using NVivo and VOSviewer. Studies using literature reviews provide information about the extent to which peer review literature can assist researchers in understanding issues and topics that have been studied regarding women entrepreneurs (Nie & Zawawi, 2023).

The Scopus database identifies journal articles published between 1990 and 2022 regarding research on women entrepreneurs. The Scopus database contains bibliographic information about the author, journals, countries, citations, and other information used in the analysis (Yazdani et al., 2022). This study takes all data from that year to reduce the bias from the smallest/smallest sample/article size published in a particular year. Thus, this study obtained a representative and reliable sample.

According to scholar's studies, the steps when conducting a literature review are planning topics and formulating them, searching literature, collecting and assessing data, analysing and interpreting data, and presenting findings and suggesting future research (Lopez-Leon et al., 2021; Narayanamurthy & Gurumurthy, 2016; Wohlin, 2014). This study uses the Scopus database to obtain articles. In the database, the settings when searching are keywords using womenpreneur, womanpreneur, "women entrepreneur", "woman entrepreneur"; year of publication between 1990 and 2022; the language used is English; countries/regions, all countries that publish articles about womenpreneurs; type of open access and others; the field of study social sciences; document type ; the author's name is all; type of source, journal articles; publication stage, reaching the final stage; A total of 577 articles were obtained from data collection through the Scopus database. This study uses the Nvivo 12 Plus and VOSviewer software applications to analyse, visualize and categorize journals. Nvivo is useful as an analysis program that helps index textual document elements and search for words and phrases in data. This study applies Nvivo to index the data component of journal articles by searching for words related to womenpreneurs.

Scopus Screening, the Scopus search engine filters publications from 1990 to 2022 to identify the broad literature on women entrepreneurs. Scopus is one of the most extensive databases of citations and abstract literature such as scientific articles, books and conference proceedings. Journal publications in Scopus are sufficiently feasible to be used as data sources in this study. Previous studies stated that Scopus is a database containing tens of millions of scientific literatures (Aghaei Chadegani et al., 2013; Zhu & Liu, 2020). In this study, only scientific articles are used in journal form with final results. The journals obtained were 577 articles. This study aims to extract and analyse data from scientific articles published in journals that have been indexed and published by Scopus.

Keyword Formulation and Search Strategy

To retrieve relevant articles, a structured keyword search was conducted using terms such as "womenpreneur", "womanpreneur", "women entrepreneur" and "woman entrepreneur". Boolean operator (AND, OR) were applied to refine search results. Additionally, thesaurus tools were used to identify synonyms and variations to ensure a comprehensive dataset.

Database Selection Justification

This study exclusively used Scopus instead Web of Science (WoS) due to its broader interdisciplinary coverage of social sciences and business research. Previous studies, such as Aghaei Chadegani et al. (2013), emphasized Scopus advantage in citation indexing and article retrieval compared to WoS. However, future studies may consider incorporating WoS for more comprehensive dataset. The retrieved data was stored in RIS format and analyzed using NVivo 12 Plus and VOSviewer to visualize themes and citation networks. A total of 577 journals articles from 1990 to 2022 were included in the analysis.

VOSviewer analysis

In this study, using the Nvivo 12 plus tool to identify keywords to provide an overview of issues that are important to women entrepreneurs that are often discussed in social science journals. The author uses Nvivo 12 to support the analysis in the literature review process. NVivo is a set of tools used to analyse literature in a qualitative analysis software package (Prasetyo et al., 2022; Pribadi & Iqbal, 2022; Salahudin et al., 2020; Syaifuddin et al., 2021). NVivo is one of the quite popular data analysis tools that can build coding schemes. Using automated code tools, NVivo processes data and creates coding schemas and nodes (Martins et al., 2022). NVivo enables authors to organize and organize and makes it easier to perform data analysis, identify themes, gather insights and develop conclusions. Critically, NVivo also enables researchers to encode all data and create themes, categories or nodes (Hendrickx et al., 2015).

This study visualizes more deeply the important issues regarding women entrepreneurs. The purpose of this data visualization is to be able to explore the emergence of each word from important issues of important data with other important words. Each important issue is presented and discussed with the theory and results of previous research below.

This study aims to determine the latest trends and identify conceptual works to be able to provide input on future research designs using bibliometric indicators that conceptualize data on open innovation topics. The data uses the Scopus database search engine by filtering publications from 1990 to 2022 to identify extensive literature on research studies with women entrepreneurs.

Scopus is one of the most extensive citations to include abstract databases that underwent thorough review by researchers (Faruk et al., 2021; Oliveira et al., 2018). The researcher considered collecting data from the Scopus engine because it is a database that is highly reviewed by other researchers consisting of quality publications with a higher impact factor than other databases.

RESULT AND DISCUSSION

This section presents a description and analysis of the findings. The results include, citations per author, year of publication, country of study, and perspective. The analysis of the findings includes issues from research on womenpreneurs. The bibliometric analysis identified eight

dominant research themes in womenpreneurship: women, business, entrepreneurship, gender, entrepreneurs, entrepreneurial, social, and development. However, business communication was not prominently featured in the research landscape.

Publication Trends

The number of publications on women entrepreneurs has steadily increased, with a peak in 2021. The most prolific sources include the *International Journal of Gender and Entrepreneurship* and *Gender in Management*. Leading scholars in this field include Brush, Welter, and Al-Dajani.

Year of Publication

Figure 1 shows the trend that the number of publications related to the keyword women entrepreneurs has increased. Articles that appear are based on data from the Scopus Database 1990, the peak number of articles in 2021 is 76 articles. Studies on women entrepreneurs over the last five years have shown fairly high consistent data compared to previous years.

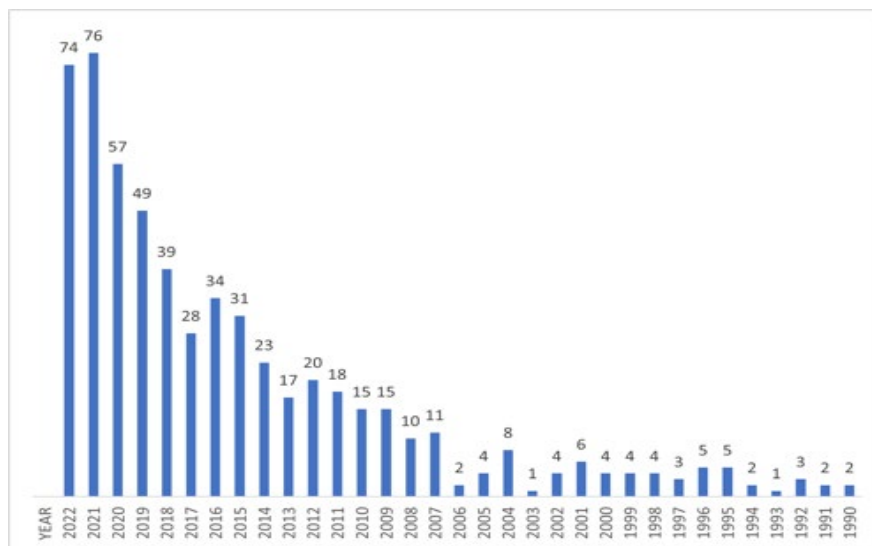


Figure 1: Citiscore publication by year
Source: Prepared by the authors (2023)

Publication Sources

Based on an analysis of the Scopus database regarding women entrepreneurs in 1990-2022 (Figure 2), it can be seen in the publication graphs from sources, in the last 2 years the average has increased quite significantly compared to previous years. According to the data, the *International Journal of Gender and Entrepreneurship* experienced a decline after 2016 and publications began to increase again in 2018. The average number of journal publications in 2000-2010 was 1 publication. The first order of most publications is the *International Journal Of Gender And Entrepreneurship*, up to 82 documents starting in 2009. Then in second place is *Gender In Management* publishing as many as 27 documents starting in 2008. Third place is *Sustainability Switzerland*, then fourth is *Journal Women S and Education*. Meanwhile, in fifth place is *Gender Work and Organization*.



Figure 2: Source of published documents per year from “Women Entrepreneurs”
 Source: Prepared by the authors (2023)

Table 1: Document publication sources per year

Source	Documents per year by source																Total							
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		2016	2017	2018	2019	2020	2021	2022
International Journal of Gender and Entrepreneurship	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Gender in Management	0	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	8	5	8	7
Sustainability Switzerland																								
Journal Women S and Education																								
Gender Work and Organization	1	1	1	1	1	1	1	1		1	1	1	2		1	1	1				1	1	1	12

Source: Prepared by the authors (2023)

Publication Scholars

Figure 3 shows the data of authors who have published at least three articles on women entrepreneurs. Two authors with 5 articles published are Brush, CG and Welter, F. Furthermore, Al-Dajani, H and Pio, E wrote 4 articles. Meanwhile, nine other authors Beutell, NJ., Dalborg C., Dhaliwal, S., Giantari, IGAK, Henry, C., Huq, A., Wincent, J., Yasa, NNK, von Friedrichs, Y. wrote three article.



Figure 3: Number of publications by author (only authors who published at least 3 articles were selected).
 Source: Prepared by the authors (2023)

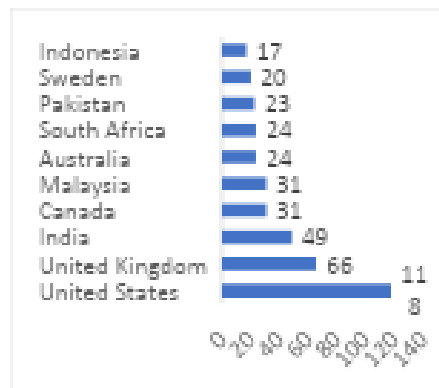


Figure 4: Number of articles related to women preneurs per country
 Source: Prepared by the authors (2023)

Country/Territory

Research on women entrepreneurs has been conducted in several countries. Figure 2 shows that countries that analyze women entrepreneurs are spread all over the world. The dominating countries are the United States, United Kingdom, India, Canada and Malaysia. Based on data from the top five countries that study the issue of women entrepreneurs, three of them are developed countries while two of them are developing countries, India and Malaysia. The United States is a developed country that has published the most articles on women entrepreneurs, with 118 articles. Then followed by the next country United Kingdom with 66 articles.

Table 2: List of countries and the number of publications of the article “entrepreneurial women” in 1990-2022

Country	Number of Publications
United States	118
United Kingdom	66
India	49
Canada	31
Malaysia	31
Australia	24
South Africa	24
Pakistan	23
Sweden	20
Indonesia	17

Source: Prepared by the authors (2023)

Publication of Documents by Affiliates

Based on an analysis of searches from Scopus, it shows data that the number of article publications on "businesswomen" from 1990 to 2022, there were 3 affiliates that published 6 articles University of South Africa, Babson College, and Mid Sweden University, Östersund. Furthermore, Universiti Sains Malaysia, National University of Singapore, Stockholms University, Universiti Malaysia Kelantan both published 5 articles. Then followed by the University of Johannesburg, Dundalk Institute of Technology and the University of Sussex published 4 articles (Figure 5).

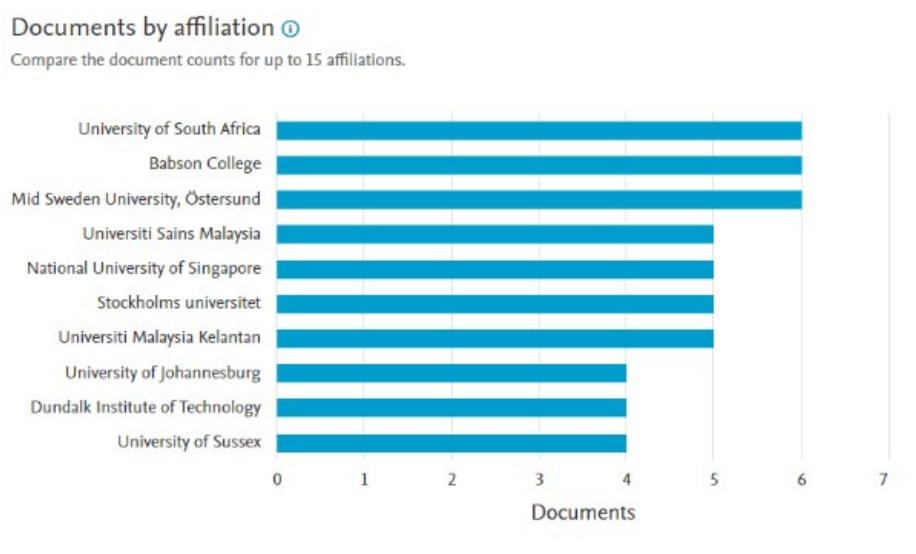


Figure 5: Publication of documents by affiliates
 Source: Prepared by the authors (2023):

Visualization Network Based on Keywords

This bibliometric analysis is assisted by showing a network visualization based on country, keywords and article titles and abstracts. The visualization uses the VOSviewer tool to determine the networks between nodes and edges as shown in Figure 6 and Figure 7. The nodes represented in the form of different colored circles can be journals, researchers, countries, keywords, or publications publications (Perianes-Rodriguez et al., 2016; van Eck & Waltman, 2017) which then uses full text citation analysis with topic modeling supervised by

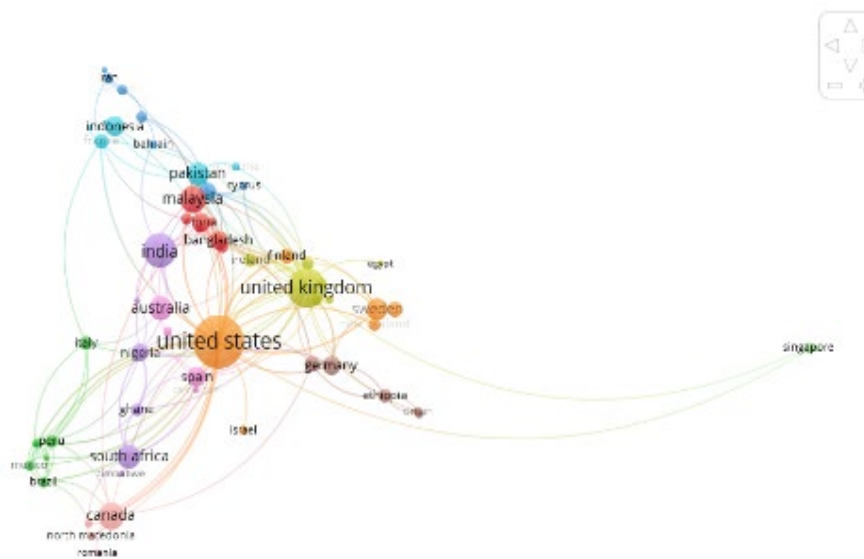


Figure 7: VOSviewer visualization by country
 Source: Prepared by the authors (2023)

Based on Table 3 from the results of an analysis of 577 documents, with the number of keywords appearing 5 times, 107 keywords were found which produced 7 clusters. Each cluster can be identified based on the color classification as shown in Figure 6.

Visualization Network by Country

Based on the results of a search of 577 documents, it was found that the country of origin of each author of the article regarding "womenpreneurs" with a time span of 1990-2022 totalled 62 items with 11 clusters (Table 4).

Table 3: The distribution of clusters and their items is visualized based on keywords by VOSviewer

Cluster 1 (20 items) Red	Brazil, business performance, challenges, culture, entrepreneurial orientation, family business, female entrepreneurs, gender theory, ghana, human capital, innovation, literature review, motivation, networking, nigeria, performance, social capital, women entrepreneurs, women entrepreneurship
Cluster 2 (20 items) Green	Australia, Bangladesh, business, business development, covid-19, developing world, entrepreneur, entrepreneurial intention, entrepreneurial skills, female entrepreneurship, participatory approach, perception, survey questionnaire, rural area, saudi arabia, social enterprise, sustainability, sustainable development, sustainable development goals, women's organization
Cluster 3 (17 items) Blue	Africa, economic activity, ethiopia, gender issue, gender relations, informal sector, institutional theory, latin america, marketing, microenterprise, microfinance, poverty alleviation, socioeconomic status, sub-Saharan Africa, Tanzania, women's entrepreneurship, women's employment
Cluster 4 (14 items) Yellow	Adult, article, development, education, empowerment, entrepreneurship, female, feminism, gender, human, identity, intersectionality, leadership, technology
Cluster 5 (12 items) Purple	Case studies, developing countries, developing countries, economic development, economic growth, employment, pakistan, qualitative research, social media, south africa, women empowerment, women entrepreneurs.
Cluster 6 (11 items) Blue	Entrepreneurialism, entrepreneurs, family, greece, islam, middle east, self employment, self-employment, training, United Kingdom, women

Cluster 7 (11 items) Orange	Finance, gender disparity, gender identity, gender role, india, malaysia, small and medium-sized, social network, social networks, technology adoption, women's status
Cluster 8 (2 items) Chocolate	Gender equality, sweden

Source: Prepared by the authors (2023)

Categorization, Relations, Theme Mapping

i. Theme Categorization

Thematic categorization analysis of 577 “women preneur” documents from 1990 to 2022 is sourced from the Scopus database. Researchers use NVivo 12 Plus software. Figure 8 shows that there are 8 topic themes spanning 1990 to 2022, women, business, entrepreneurial, gender, entrepreneurs, entrepreneurship, social, development. Then from the categorization of themes that are processed through the auto code feature in the NVivo 12 Plus software using the identification theme, eight categorizations of the theme "women preneur" appear. Furthermore, each of these themes is subdivided into several indicators.

Table 4: The distribution of clusters and their items is visualized by country

Cluster 1 (7 items)	Bangladesh, China, Japan, Kenya, Malaysia, Serbia
Cluster 2 (7 items)	Brazil, Chile Colombia, Ecuador, Italy, Mexico, Peru
Cluster 3 (7 items)	Bahrain, Cyprus, Hungary, Iran, Lebanon, Saudi Arabia, United Arab Emirates
Cluster 4 (7 items)	Denmark, Egypt, Ireland, Ireland, Norway, Tanzania, Uganda, United Kingdom
Cluster 5 (6 items)	Ghana, India, Iraq, Nigeria, South Africa, Zimbabwe
Cluster 6 (6 items)	Belgium, France, Indonesia, Jordan, Lithuania, Pakistan
Cluster 7 (6 items)	Finland, Israel, New Zealand, Sweden, Turkey, United States
Cluster 8 (5 items)	Ethiopia, Fiji, Germany, Netherlands, Oman
Cluster 9 (4 items)	Australia, Cameroon, Portugal, Spain
Cluster 10 (4 items)	Canada, North Macedonia, Poland, Romania
Cluster 11 (3 items)	Singapore, South Korea, Vietnam

Source: Prepared by the authors (2023)



Figure 8: Theme Categorization using NVivo 12 Plus
 Source: Prepared by the authors (2023)

ii. Theme Categorization Images

Figure 9 shows that the study on the theme of women preneurs has a fairly comprehensive, complex and interrelated scope. The five sub-topics of each topic in Figure 9 are the sub-topics that have the highest scores in the feature-based analysis. The feature used is the auto code on the NVivo 12 Plus software taken from 577 documents indexed by Scopus. The theme that has been studied the most by previous researchers is that there are eight themes with the picture below.

The first important perspective: entrepreneurs and their sub-topics. The relationship between the word entrepreneur and other words, based on the Jaccard coefficient value, the interconnection can be seen in the pictures and words, women entrepreneurs (0.7), women tourism entrepreneurs (0.01), effective entrepreneurs (0.07).

According to Long and Buzzanell (2022) structure, identity of power and identity of entrepreneurs enable them to create opportunities for change. In fact, data supported by Mayer (2008) shows that women technology entrepreneurs in four metropolitan areas in the United States state that they have high technological power, strong dynamics shaping business ownership by women. Everts (1998) stated that the accessibility of women entrepreneurs requires adequate information technology, training, organization and availability of hardware.

Secondly, the important perspectives on business and its sub topics. Based on the picture of Figure 9, shows that business issues are related to business incubator (0.1), business behavior (0.09), business infrastructure (0.088). This finding supports the findings of previous researchers. Jiyane told about business communication, that rural women collect information through radio, television and cell phones, but not much is used to find information related to business (Jiyane & Mostert, 2010). So skills are needed in using communication technology such as computers and digital communication tools that are easily accessible to women who are close to their work environment. In contrast to Vershinina et al. (2019) study, Natalia regarding family business, entrepreneurs who run family businesses need to overcome structural obstacles by developing strategies that prioritize their own business aspirations without sacrificing their family ties. Barrett stated that the important elements in a family business are entrepreneurial imagination, empathy, modularity and self-regulation or self-organization which are then able to produce new industries (Barrett, 2014).

The third important perspectives of women and their sub-topics. Based on the figure, it shows women's issues related to the sub-topics of women entrepreneurs (0.6), women owners (0.5), women founders (0.1). As in the previous study conducted by Ayatakshi-Endow and Steele (2021) that women apply various social relations strategies within the family in their business processes. Fenwick (2002) explained that the process of work learning and personal changes for women preneurs occurred for at least four years since running their new business. Swartz et al. (2022) said that women entrepreneurs who are founders of digital start-up platforms need to be highly aware of opportunities from investors, especially if it is a non-profit business driven by social goals.

The fourth important perspective of entrepreneurialism and its subtopics. Things related to entrepreneurial issues are entrepreneurial activities (0.4), entrepreneurial culture (0.3), entrepreneurial skills (0.1). Studies on the entrepreneurial sub-topic, Venugopal (2016) in his study stated that the ability of entrepreneurs is very influential due to the support and direct involvement of the family. Aman et al explained that the role of the entrepreneurial ecosystem in the organizational environment is important (Aman et al., 2021). Mozumdar et

al. (2022) explain business performance by exploring efficiency when applied to a limited context in developing countries.

The fifth important perspective of entrepreneurship and its sub topics, entrepreneurship issues are closely related to topics such as women entrepreneurship originality (0.3), global entrepreneurship (0.1), academic entrepreneurship (0.05). The study that has been carried out by Bianco et al. (2017) to explore the entrepreneurial potential of women, in order to achieve gender equality. Yingjun et al. (2021) stated that women's entrepreneurship is greatly influenced by access to finance, legal constraints and entrepreneurial skills. Huq and Venugopal (2021) conducted another study on the life experiences of refugee entrepreneurs regarding the entrepreneurial journey includes self-reconstruction, social capital and resilience.

The sixth social important perspective and its sub-topics, topics regarding social are very closely related to the sub-topics of social welfare (0.1), social workers (0.09), social entrepreneurship (0.08). Studies related to social issues, such as those carried out by Ali et al. (2019), developed a framework for developing skills in using social media as a business medium. This social networking site is able to develop marketing skills by using a social network site. Chen et al. (2015) studies on social networks, internet use and gender disparities in business performance. The results reveal significant gender differences regarding business characteristics and association participation of businesses.

Important perspectives of the seven genders and their sub-topics, topics related to the topic of gender are gendered entrepreneurship (0.9), gender gap (0.18), gender norms (0.15). Studies that are in line with sub-topics related to gender were written by Pfefferman and Frenkel (2015) regarding the issue of different entrepreneurial opportunities between women and men. The study provides direct and indirect understanding of the reproduction of the ideal image of entrepreneurs and gender which is very influential in entrepreneurial activities. Hughes and Yang (2020) in their study regarding the main activities in entrepreneurial growth, formal learning, informal learning, and peer/community support are important things in learning for women entrepreneurs.

The eighth important perspectives on development and their sub topics, topics regarding development related to the sub-topics of developing country (0.2), developing economy (0.19), social development (0.17). The issue of development is very much in line with the study written by Endow and Steele on women entrepreneurs who successfully manage businesses and gender roles in the context of Covid-19 (Ayatakshi-Endow & Steele, 2021). Another study on development was conducted by Kagbu Joyce on the entrepreneurial competence of women farmers. The important things in the study are adequate capital, infrastructure facilities and access to information to create a social and physical infrastructure environment that allows it to catalyze the development of women's entrepreneurship (Kagbu, 2018). Teoh & Chong looked at the development of female entrepreneurship at small and middle ages, their findings needed a strategy to overcome, contextualize the superior aspects of gender from women and then have practical implications (Teoh & Chong, 2014).

Linkages Between Themes

The study using the help of the NVivo Plus 12 software shows a definite relationship between the major topics of women preneurs and the topics of women, business, entrepreneurial, gender, entrepreneurs, entrepreneurship, social, and development. The correlation used uses the Jacquard coefficient to calculate the similarity between the sample groups from the

database. The results of the analysis carried out, introduced a new algorithm to perform similarity searches which were then accelerated and grouped sub-topic groups using indexing. The relationship between topics based on the correlation of the Jaccard coefficient has differences. The relationship and coefficient values between themes are shown in Figure 10 and Table 5.

Table 5: List of Jaccard coefficient values of the "women preneur" theme against 8 other themes using NVivo 12+

Code A	Code B	Jaccard coefficient
Women Preneur	Entrepreneurs	0.905
Women Preneur	business	0.650592
Women Preneur	women	0.61053
Women Preneur	Entrepreneurial	0.61053
Women Preneur	Entrepreneurship	0.591837
Women Preneur	social	0.521968
Women Preneur	Gender	0.5172
Women Preneur	Development	0.497027

Source: Prepared by the authors (2023)

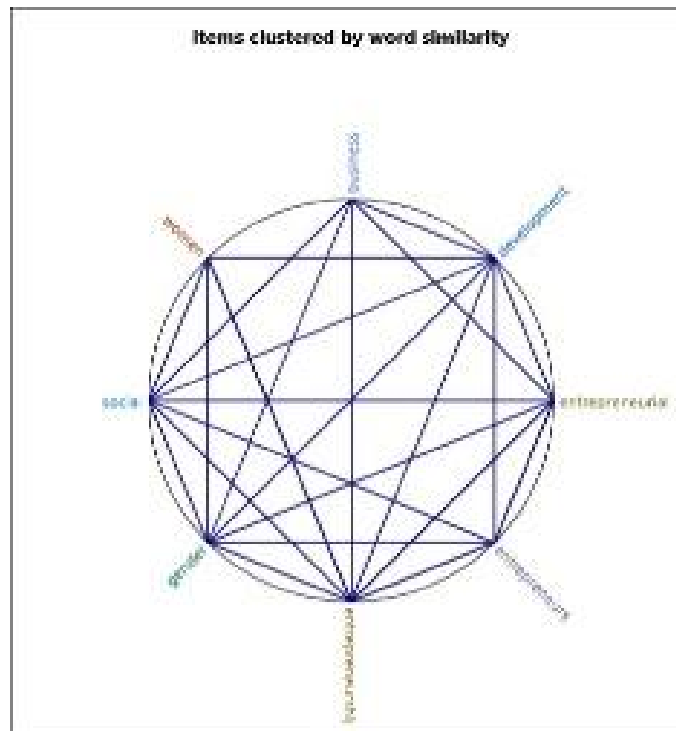


Figure 10: The relationship between themes is calculated by the Jaccard coefficient using NVivo 12+
 Source: Prepared by the authors (2023)



Figure 11: Dominant topics in “women preneur” research using NVivo 12+
Source: Prepared by the authors (2023)

Thematic Mapping and Network Visualization

NVivo and VOSviewer analysis revealed that most studies focus on entrepreneurial motivation, gender disparities, and socio-economic impacts. However, research on communication strategies in womenpreneurship remains underexplored. The Jaccard coefficient analysis indicated strong interconnections between womenpreneurship and entrepreneurship (0.905), business (0.650), and gender (0.517).

Dominant Topics in Research Development Map

Based on word frequency query analysis using the NVivo 12 Plus software on 577 articles in the Scopus database to explore the words that appear most often in research studies related to the theme of womenpreneurs from 1990-2022. The most dominant and highly related words/ topics in this article are women, business, entrepreneurs, entrepreneurship, gender, research, social, entrepreneurial. A more detailed explanation of the most dominant research topics on the "women preneur" theme is seen in Table 6.

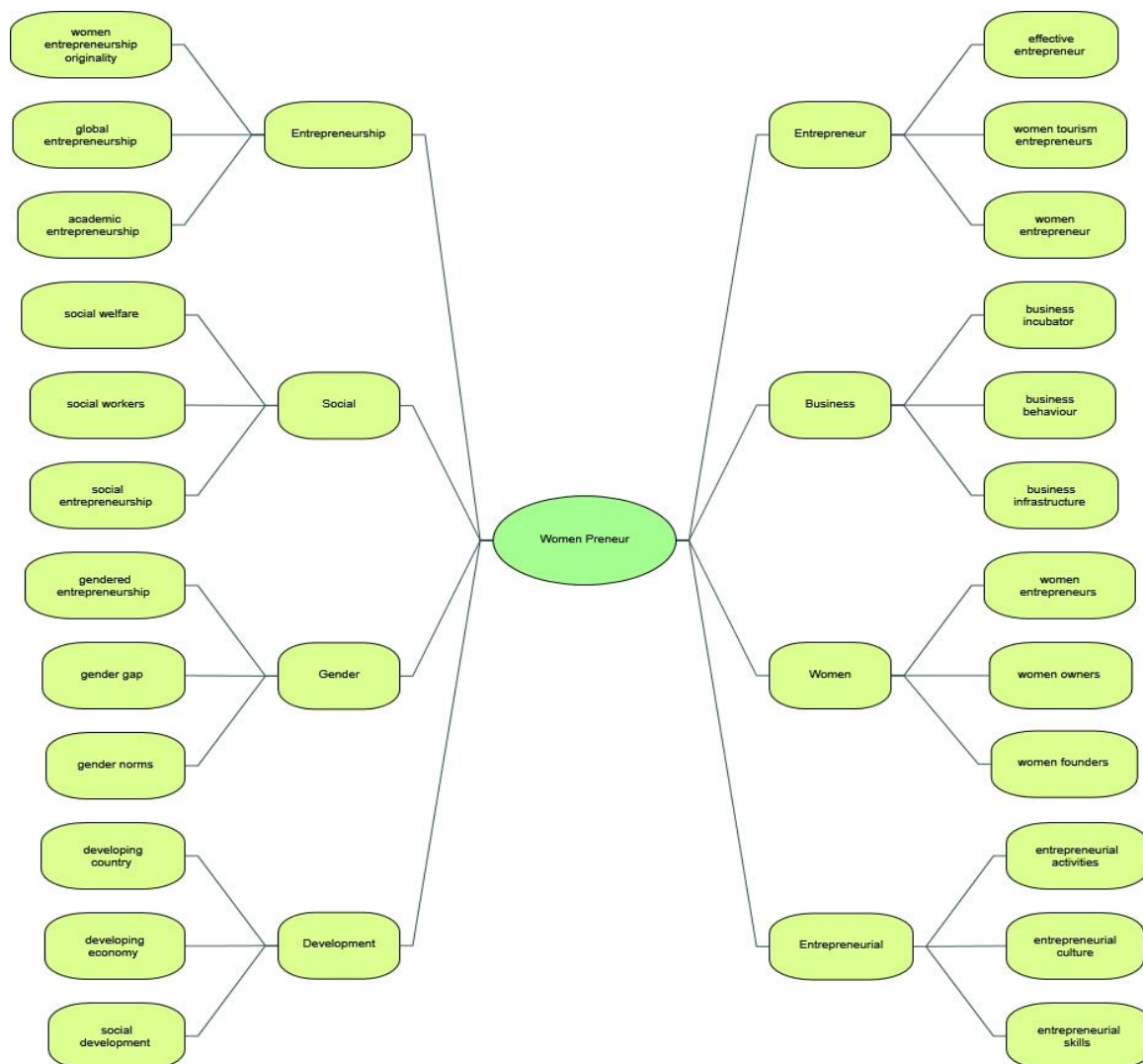


Figure 9: Formulation of the women preneur theme model
 Source: Prepared by the authors (2023)

Perspectives Used to Study "Women Preneur"

Figure 8 shows perspectives/themes for studying women preneurs in articles that have been published through Scopus. There are eight main perspectives used by researchers to analyze women preneurs. The perspectives used are women, business, entrepreneurial, gender, entrepreneurs, entrepreneurship, social, and development. This study uses the help of NVivo 12 plus software to show the emergence of keywords that provide an overview of important issues in "women preneurs" discussed in article publications on Scopus. The author uses NVivo to support the process of analysis and literature study. NVivo builds a coding scheme, through an automated coding tool then processes the data and creates the coding schema and nodes (Martins et al., 2022). NVivo also makes it possible to manage and organize data then makes it easier to analyze data, identify themes, develop conclusions and gather insights. NVivo can help researchers to encode all data and create themes, categories and nodes (Hendrickx et al., 2015).

Table 6: List of dominant topics

word	Length	Count
women	5	64333
business	8	30761
entrepreneurs	13	25363
entrepreneurship	16	23986
gender	6	15436
research	8	13899
social	6	13355
entrepreneurial	15	12992
journaling	7	11075
study	5	10633
development	11	10173
family	6	10082
female	6	8591
economic	8	7431
businesses	10	7154
management	10	6974

Source: Prepared by the authors (2023)

The Jaccard coefficient as shown in Table 5 resulting from data processing with NVivo shows the validity of the eight themes. In each major theme closely related to "women preneur". The Jaccard Coefficient value which shows a number of more than 0.5 indicates that they have a significant relationship.

Visualization in eight themes related to the main theme to explore the emergence of each word from an important issue with other important words. Every important issue is presented and discussed with the theory and results of previous research. Each number indicates the density/closeness between the words of women preneur and other words. Proximity is marked on a scale of 0-1. The closer to number 1, the higher the number of close co-occurrence. Meanwhile, the farther from number 1, the lower the closeness of co-occurrence. Table 5 shows the theme of women preneurs together with entrepreneurs (0.95), business (0.65), women (0.61), entrepreneurial (0.61), entrepreneurship (0.59), social (0.52), gender (0.51) and development (0.49).

CONCLUSION

Women preneurs have been discussed in the social sciences by many researchers. This study is more directed at expanding debates and perspectives from researchers in the field of social sciences. A previous bibliometric study conducted by Moreira on 277 articles between 1990-2016 using the Web of Science database regarding women's entrepreneurship. Her study reveals about epistemological and gender positions; social and cultural reasons when creating a business; motivation, characteristics and business performance.

The practical implication of this study is that women entrepreneurs need an important element in the process, it need for support from various important topics such as women, business, entrepreneurial, gender, entrepreneurs, entrepreneurship, social, and development. The limitation of this study is that the scope of knowledge is too broad, so it lacks detail in expressing specific problems. The duration of the research is not long, so the analysis carried out is still lacking in detail and specificity.

This study suggests some ideas for future research. Subsequent studies examine the theme of womenpreneurs in certain disciplines; gender, social, entrepreneurs, entrepreneurship to be able to reveal more specific issues. It better if future studies will focus to business communication among womenpreneur. Subsequent studies should involve more articles and various sources, so that they can map more complex issues or topics and can confirm new study models.

Womenpreneurship research has grown significantly, yet business communication remains an overlooked aspect. This study highlights the necessity of integrating communication perspectives into womenpreneurship studies. Future research should explore how communication strategies impact womenpreneurs' success, networking, and business sustainability.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study focused solely on Scopus-indexed articles, which may limit the scope of findings. Future studies should incorporate multiple databases and conduct deeper qualitative analyses on business communication strategies among womenpreneurs.

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