

INTELLECTUAL FOUNDATIONS AND THEMATIC TRAJECTORIES OF WOMEN'S EMPOWERMENT RESEARCH: A GLOBAL BIBLIOMETRIC PERSPECTIVE (1992-2025)

Farahat Ali

Assistant Professor, School of Media and Mass Communication, Beaconhouse National University, Lahore, Pakistan

farahat.ali@bnu.edu.pk

Corresponding Author: *

Farahat Ali

DOI: <https://doi.org/10.5281/zenodo.18308775>

Received	Accepted	Published
4 September 2025	06 January 2026	20 January 2026

ABSTRACT

Women's empowerment has become a key focus across development, public health, and social policy, yet existing reviews remain fragmented by sector and geography. This study offers a comprehensive bibliometric analysis of women's empowerment research indexed in the Web of Science Core Collection from 1992 to 2025. Using bibliometrix and Biblioshiny, 4,074 English-language journal articles were analysed through performance indicators, citation analysis, co-word networks, Multiple Correspondence Analysis, and co-authorship and country-collaboration mapping. Findings reveal a rapidly expanding and increasingly collaborative field, anchored in a small set of seminal works and concentrated in high-impact, interdisciplinary journals. Conceptual structure and thematic maps identify a dominant motor cluster linking empowerment with health, agriculture, and food security, alongside an emerging theoretical frontier around gender, agency, and violence. Collaboration networks show a hub-and-spoke pattern centred on institutions in the United States and Western Europe, with growing, but still uneven, participation from the Global South. The study highlights persistent gaps related to conceptual fragmentation, measurement inconsistency, and epistemic inequalities, and outlines a future agenda for more intersectional, decolonial, and methodologically integrated empowerment research.

Keywords: women's empowerment, bibliometric analysis, science mapping, gender, development

INTRODUCTION

Women's empowerment has become a central concern in development, public health, and social policy research as gender inequalities continue to shape economic opportunities, health outcomes, and social participation worldwide. Despite decades of policy commitments and global frameworks, ranging from the Beijing Platform for Action to the Sustainable Development Goals, women across many regions remain disproportionately affected by poverty, limited decision-making power, restricted access to resources, and exposure to gender-based violence (UN Women, 2023). These persistent inequalities have elevated

women's empowerment from a normative aspiration to an empirical research priority, prompting scholars to examine how power, agency, and structural constraints interact across social, economic, and institutional contexts.

Empirical research has consistently demonstrated that women's empowerment is strongly associated with improved outcomes in health, nutrition, education, and household welfare. Foundational work by Kabeer (1999) conceptualized empowerment as a process through which individuals acquire the ability to make strategic life choices in contexts where such ability was previously denied, establishing a

framework that continues to guide empirical inquiry. Subsequent studies have shown that empowered women are more likely to access healthcare services, participate in household decision-making, and invest in children's health and education (Upadhyay et al., 2014; Pratley, 2016). In agricultural and food systems, women's empowerment has been linked to higher productivity and improved nutrition outcomes, particularly in low- and middle-income countries (Ruel et al., 2013). These findings underscore the importance of studying women's empowerment not only as a gender equity issue but also as a determinant of broader development outcomes.

A substantial body of scholarship has focused on developing robust tools to measure women's empowerment across contexts. The Women's Empowerment in Agriculture Index (WEAI) introduced by Alkire et al. (2013) marked a significant methodological advance by operationalizing empowerment across domains such as production, resources, income, leadership, and time use. Building on this, the project-level WEAI (PRO-WEAI) further refined measurement to support program evaluation and policy design (Malapit et al., 2019). Parallel efforts in public health have produced indices such as the Survey-based Women's Empowerment (SWPER) Index, which captures empowerment dimensions related to social independence, decision-making, and attitudes toward violence (Ewerling et al., 2017). These measurement innovations have enabled large-scale comparative research and strengthened causal analysis linking empowerment to outcomes in nutrition, reproductive health, and child well-being (Bhutta et al., 2013; Duflo, 2012).

Beyond measurement, research has diversified thematically. Studies in development economics have demonstrated that increasing women's control over resources can yield measurable welfare gains, although effects vary by context and institutional environment (Banerjee et al., 2015). Public health research has documented strong associations between women's empowerment and contraceptive use, skilled birth attendance, and reduced maternal mortality, particularly in Sub-Saharan Africa (Alam et al., 2015; Ahmed et al., 2010). At the same time, a growing literature has examined the

darker dimensions of gender inequality, showing that low empowerment is associated with higher exposure to intimate partner violence and adverse mental and physical health outcomes (Kim et al., 2007; Hashemi et al., 1996). Collectively, these studies demonstrate that women's empowerment research is both empirically rich and highly interdisciplinary, spanning economics, sociology, public health, and gender studies.

Despite this extensive scholarship, several specific and unresolved gaps remain. First, while individual thematic reviews exist, there is limited field-level synthesis that maps how women's empowerment research has evolved over time in terms of intellectual foundations, dominant themes, and emerging research fronts. Most reviews focus on particular domains, such as agriculture, health, or violence, without situating these streams within the broader structure of the field. Second, although influential scholars and institutions are frequently cited, there has been little systematic analysis of how collaboration networks, institutional hubs, and country-level partnerships shape knowledge production in women's empowerment research. This omission is particularly consequential given the observed dominance of a small number of countries and institutions in global scholarship. Third, while recent work increasingly integrates empowerment with health, agriculture, and development policy, the conceptual relationships between empowerment, agency, and adverse outcomes such as violence remain fragmented, with limited cross-fertilization between research streams.

This study addresses these gaps by providing a comprehensive bibliometric analysis of women's empowerment research published between 1992 and 2025. Drawing on a large corpus of peer-reviewed journal articles, the analysis systematically examines publication growth, citation dynamics, and the intellectual structure of the field. Science-mapping techniques are used to identify foundational references, leading authors and institutions, dominant and emerging themes, and global collaboration patterns. By integrating performance indicators with conceptual, thematic, and network analyses, the study offers a field-level perspective that moves beyond fragmented domain-specific

reviews. The contribution lies in clarifying how women's empowerment research has matured, how its core and peripheral themes are structured, and how global inequalities in knowledge production shape the evolution of this critical research domain.

Literature Review

Conceptualizing Women's Empowerment

Women's empowerment is now widely conceptualized as a multidimensional, context-specific process through which women gain the ability to make strategic life choices in domains where such choice was previously constrained (Kabeer, 1999; Priya et al., 2021; Rafiq et al., 2024). Classic formulations emphasize the interdependence of resources (material, human, and social capital), agency (the capacity to define goals and act upon them), and achievements (the outcomes of exercised agency), arguing that empowerment cannot be reduced to any single component (Kabeer, 1999). More recent syntheses extend this view by explicitly incorporating psychological empowerment (self-efficacy, self-esteem), bodily autonomy, attitudes toward gender-based violence, financial independence, and freedom of movement, positioning empowerment as both a process and an outcome embedded in household, community, and institutional structures (Mandal et al., 2017; Singh & Singh, 2025). This conceptual evolution is central for bibliometric work because shifting definitions alter the keywords, domains, and indicators that different research communities attach to "empowerment," thereby shaping the intellectual map your analysis will reveal.

At the same time, intersectional and contextual lenses have complicated earlier, more universalist notions of empowerment. Studies grounded in community practice, rural livelihoods, and health equity show that gendered power relations intersect with race, class, ethnicity, and migration status to produce very different empowerment trajectories across groups and locations (Hogan et al., 2018; Hung et al., 2020; Serra et al., 2025). For example, research on Black Brazilian women, low-income migrant women, and rural mothers in South Asia demonstrates that the same "empowerment" intervention can yield divergent outcomes depending on local norms,

kinship structures, and state institutions (Hogan et al., 2018; Hung et al., 2020; Kumar & Mishra, 2022). Large-scale work on Indian women further shows that dimensions such as mobility, decision-making, and attitudes toward violence realign over time as social and generational norms shift, underscoring empowerment as a moving target rather than a fixed state (Singh & Singh, 2025). For a bibliometric analysis, this implies that conceptual pluralism and context-sensitivity are not peripheral but structurally central features of the field.

Across sectors, the literature on women's empowerment has expanded rapidly, but in a fragmented, domain-specific way. Bibliometric and scientometric studies report pronounced growth in publications since the adoption of the Sustainable Development Goals, with strong contributions from sociology, economics, public health, and tourism, and leading country outputs from the United States, India, and several European and Asian contexts (Adeleye et al., 2024; Devi et al., 2024; Shaikh, 2021; Wang et al., 2025). These studies identify clusters around women's economic empowerment, self-help groups, rural development, health, and education, as well as more recent clusters around tourism, digital media, and higher education (Gera & Rohatgi, 2025; Mahato et al., 2023). Importantly, they also highlight underrepresented geographies and limited cross-regional collaboration, suggesting that the empirical knowledge base is unevenly constructed, an issue that bibliometric design can quantify through network and co-authorship analyses.

Methods, Measures, and Theoretical Frameworks

Methodologically, women's empowerment research has been dominated by quantitative approaches that construct composite indices from large-scale surveys such as Demographic and Health Surveys (Costa et al., 2023; Mandal et al., 2017). Researchers typically use exploratory and confirmatory factor analysis or principal component analysis to derive latent empowerment dimensions, often labeled decision-making, social independence, attitudes toward violence, and access to healthcare, and then test their associations with outcomes of interest (Miedema et al., 2018). In agriculture,

the Women's Empowerment in Agriculture Index (WEAI) and project-level variants have provided influential, standardized tools to capture domains like production decisions, resource control, and leadership, enabling cross-country comparisons and program evaluation (Quisumbing et al., 2023; Yount et al., 2019). However, critical methodological work points to limitations of these data-driven indices: when indicators are poorly correlated with the underlying construct, dimensionality reduction can yield factors that are statistically convenient but theoretically thin, and different index constructions often flag different women as "empowered," with major implications for policy targeting (Libório et al., 2025).

In response to these concerns, there is a pronounced shift toward mixed-methods and explicitly theory-driven designs. Longitudinal and collaborative projects combine surveys with life histories, ethnography, and participatory tools to unpack how empowerment is negotiated within households, communities, and institutions over time (Doss & Rubin, 2025). Feminist theoretical frameworks, building on Kabeer's resources–agency–achievements model, as well as radical and postcolonial feminism, foreground power relations, structural constraints, and the importance of collective as well as individual agency (Kabeer, 1999; Desai et al., 2022; Williams, 2025). Intersectionality is increasingly operationalized not only as a discursive lens but as a design principle that shapes sampling, indicator selection, and analytic strategies, for example in comparative work on livestock holders, migrant women, and rural mothers across multiple African and Asian countries (Hung et al., 2020; Serra et al., 2025; Kumar & Mishra, 2022).

Themes, Emerging Directions, and Research Gaps

Across this diverse corpus, several themes have become dominant and structurally central. Economic and agricultural empowerment, rural women's participation in self-help groups, and women's roles in household and community decision-making form one major hub, linking development economics, rural sociology, and gender studies (Goldman & Little, 2015; Kumar & Mishra, 2022; Mahato et al., 2023; Quisumbing et al., 2023). A second hub centers

on health, fertility, and reproductive rights, where empowerment indices are used to explain variation in contraceptive uptake, fertility trajectories, maternal mental health, and child nutrition (Dadras et al., 2022). A third cluster revolves around measurement and theory itself: literature reviews and methodological critiques debate the basic structures and domains of empowerment, pushing for more transparent, context-grounded measurement practice (Costa et al., 2023; Priya et al., 2021). Bibliometric studies suggest that these clusters act as "backbones" of the field, because they are heavily cited, span multiple regions, and connect otherwise separate topical communities (Adeleye et al., 2024; Devi et al., 2024).

More recently, digital media, tourism, philanthropy, and academia have emerged as important, if still less consolidated, lines of inquiry. Studies on digital literacy, social media, and platform economies show how online spaces can simultaneously enable feminist organizing, storytelling, and economic opportunities, while exposing women to harassment, surveillance, and algorithmic biases (Fatima et al., 2025; Khamis & Dogbatse, 2025; Suwana, 2017). Tourism research explores women's roles as workers, entrepreneurs, and community leaders, framing tourism both as a site of empowerment and as a terrain of gendered exploitation (Wang et al., 2025). Work on feminist philanthropy and women's leadership in higher education interrogates how organizational structures and funding models can either align with or dilute empowerment agendas (Fauzi et al., 2024; Gillespie, 2023; Liu et al., 2024; Williams, 2025). At the same time, critical analyses of UN discourse and NGO practice warn that "empowerment" is often depoliticized into a technical fix, reduced to numeric targets and entrepreneurship training, rather than a transformative challenge to structural inequalities (Kausar, 2022; Scheyvens, 2020). Against this backdrop, persistent gaps remain: conceptual fragmentation, measurement inconsistency, concentration of studies in a limited set of countries, and a frequent disconnect between critical feminist theory and on-the-ground program design (Adeleye et al., 2024; Costa et al., 2023; Dellie et al., 2024; Priya et al., 2021). A systematic bibliometric analysis that foregrounds these patterns, who studies

empowerment, where, with which lenses, and in relation to which outcomes, can therefore play a crucial role in consolidating the field and setting a more coherent, intersectional, and methodologically rigorous research agenda. Therefore, based on this literature following research questions are formulated:

RQ1. How has women's empowerment research evolved over time in terms of publication growth, citation impact, and key intellectual foundations from 1992 to 2025?

RQ2. What are the dominant, emerging, and structurally central themes shaping the intellectual and conceptual organization of women's empowerment research across development, health, agriculture, and gender-based violence?

RQ3. How do authorship, institutional affiliations, and international collaboration patterns structure global knowledge production in women's empowerment research, and which countries and institutions function as core hubs?

Method

Data Source and Search Strategy

This bibliometric study was based on records retrieved from the Web of Science (WoS) Core Collection, which was selected for its rigorous indexing standards and wide coverage of high-impact journals in the social sciences, public health, and development studies (Aria & Cuccurullo, 2017). The search strategy was designed to capture the core literature explicitly framing women's empowerment as a central construct, rather than as a peripheral variable. To achieve this, the title field was queried using the expressions "women empowerment" OR "women's empowerment," combined with equivalent variants provided by the WoS interface. The search was restricted to "Document Type: Article" and "Language: English," and the timespan was set from 1992 to 2025 to align with the period over which empowerment has been theorised and empirically measured as a multidimensional construct (Priya et al., 2021). The final query, after incremental refinements visible in the Web of Science screenshots, yielded 4,074 records drawn from 1,506 distinct sources, providing a broad and temporally extensive corpus for analysis.

Eligibility Criteria and Data Cleaning

All records returned by the WoS search were exported with full bibliographic information and cited references in plain-text format suitable for processing in bibliometric software (Aria & Cuccurullo, 2017). In keeping with the refinement options applied in WoS, the dataset was limited to research articles, including early-access and proceedings-article variants where these were indexed under "article," while excluding book reviews, editorials, meeting abstracts, corrections, and retracted publications. Duplicates arising from overlapping indexation (e.g., early-access and final versions) were identified and removed through a combination of DOI matching and comparison of author-title strings. Records with missing essential fields (such as publication year, source title, or author names) were inspected manually and either corrected, when information could be verified directly in WoS, or excluded if verification was not possible. This cleaning process ensured that descriptive indicators (e.g., annual growth rate, average citations, and collaboration measures) were computed on a consistent and reliable set of documents, while preserving the multidisciplinary and global character of the original corpus.

Bibliometric Indicators and Performance Analysis

The cleaned dataset was imported into the *bibliometrix* package and its graphical interface Biblioshiny for R, which enabled standardized computation of performance indicators and science-mapping routines (Aria & Cuccurullo, 2017). Descriptive bibliometric indicators were first calculated to address the temporal and structural dimensions of women's empowerment research, including annual scientific production, annual growth rate, document age, and average citations per article. Source-level indicators, such as most productive journals and cumulative source output over time, were used to identify the core outlets structuring the field. Author-level metrics (number of publications, fractionalised authorship, and temporal production profiles) captured individual and collaborative productivity, while institutional and country-level counts highlighted key organisational and

national hubs. These performance analyses were complemented by citation-based indicators, most globally cited documents and reference publication year spectroscopy, to surface foundational works and intellectual turning points in the evolution of women's empowerment scholarship (Costa et al., 2023; Priya et al., 2021).

Science-Mapping and Conceptual Structure Analysis

To move beyond productivity metrics and uncover the intellectual and conceptual organisation of the field, a suite of science-mapping techniques was applied using *bibliometrix* and its integration with visualization tools. Co-citation and three-field (cited reference–author–keyword) plots were generated to identify seminal references, leading authors, and their connections to core conceptual vocabularies around empowerment, gender, health, and agriculture (Priya et al., 2021). Co-word analysis based on both Author Keywords and Keywords Plus was used to construct networks of thematic co-occurrence, from which treemaps, trend-topic timelines, and strategic thematic maps (centrality–density plots) were derived to distinguish motor, emerging, and peripheral themes. Multiple Correspondence Analysis (MCA) was employed to map the conceptual structure of the field in a reduced two-dimensional space, revealing clusters that juxtapose empowerment and agency, economic participation, food security, and gender-based violence within a single latent framework (Costa et al., 2023). Finally, co-authorship and country-collaboration networks were examined to visualise the global structure of knowledge production, identify dominant collaboration hubs, and situate thematic developments within broader patterns of institutional and geographic connectivity. Together, these procedures provide a comprehensive methodological framework for analysing how women's empowerment research has evolved, how its themes are structured, and how global scholarly networks shape the field.

Results

The bibliometric dataset on women's empowerment research spans the period from

1992 to 2025 and includes a total of 4,074 documents published across 1,506 sources, reflecting the breadth of journals and scholarly outlets contributing to this field. The literature shows a strong and sustained expansion, with an annual growth rate of 9.8%, indicating a rapidly developing research domain. The average document age of 5.78 years highlights the contemporary orientation of the scholarship, while an average of 16.8 citations per document, supported by 155,077 references, points to a solid and well-established knowledge base. In terms of thematic coverage, the presence of 3,440 Keywords Plus terms and 8,169 author keywords demonstrates substantial conceptual diversity. Authorship patterns reveal contributions from 11,572 authors, with 797 authors producing single-authored works, while collaboration is prominent, as reflected in 852 single-authored documents, an average of 3.36 co-authors per publication, and a high level of international collaboration (34.73%). Overall, the dataset is overwhelmingly composed of journal articles, underscoring the central role of peer-reviewed journal publishing in shaping research on women's empowerment.

Figure 1 illustrates the annual scientific production on women's empowerment research from 1992 onward, revealing a clear long-term growth trajectory with distinct phases of development. During the 1990s and early 2000s, publication output remained relatively low and stable, indicating an emergent field with limited but steady scholarly engagement. From the mid-2000s, a gradual increase becomes visible, followed by a pronounced acceleration after approximately 2014, reflecting a rapid expansion of research activity and heightened global attention to women's empowerment across development, health, and social policy domains. The sharp rise in publications between 2018 and 2024 marks the most productive period in the field's history, suggesting both conceptual maturation and increasing policy relevance. The apparent decline at the end of the timeline should be interpreted cautiously, as it likely reflects database indexing delays and the inclusion of incomplete recent-year data rather than a substantive reduction in research output.

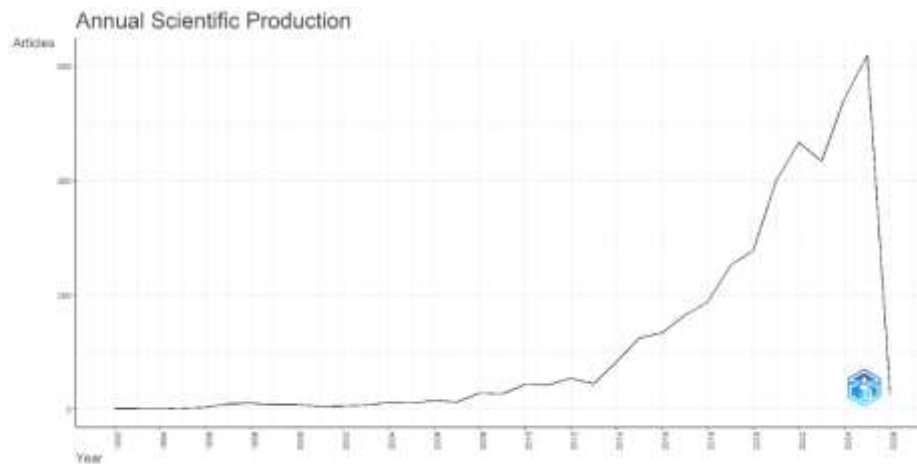


Figure 1. Annual Scientific Production

Figure 2 presents the trend in average citations per year, highlighting fluctuations in the scholarly impact of women's empowerment research over time. In the early phase of the field, citation levels were relatively low and volatile, reflecting a limited volume of publications and the formative nature of the research agenda. A pronounced citation peak in the late 1990s indicates the publication of highly influential foundational works that attracted sustained scholarly attention. Following this peak, average citations per year stabilize at moderate levels

throughout the 2000s, suggesting steady consolidation of the field and consistent referencing of core literature. A second notable rise around the early 2010s points to another wave of impactful publications, likely associated with influential conceptual frameworks and measurement tools. The gradual decline in average citations in the most recent years should be interpreted with caution, as it is largely attributable to citation lag, given that newer publications have had less time to accumulate citations rather than indicating a decline in research quality or relevance.

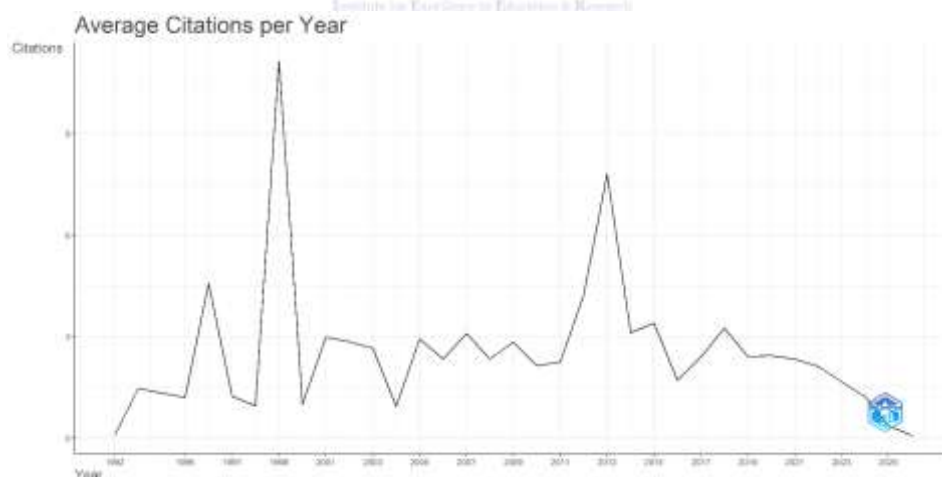


Figure 2. Average Citations per Year

Figure 3 presents the three-field plot linking cited references (CR), authors (AU), and merged keywords (KW_Merged), revealing a highly cohesive and intellectually integrated research network centered on women's empowerment and gender in development. On the cited-reference side, *Kabeer (1999, Development and Change)* clearly emerges as the dominant

intellectual anchor, with the largest node and strongest linkages to subsequent scholarship, underscoring its foundational role in shaping theoretical and methodological understandings of empowerment and development. Other highly influential references, including works by Alkire (2013), Malapit (2019), and Sraboni (2014), further indicate a strong grounding in

international development, food policy, poverty, and gender-focused social policy. In the author field, scholars such as Greg Seymour, Kathryn M. Yount, Jessica Heckert, Hazel Malapit, and Agnes Quisumbing occupy central positions, acting as key bridges between foundational literature and contemporary thematic areas; their prominence reflects both high productivity and their role in integrating theory with applied research. On the keyword side, the network is dominated by “women’s empowerment,” “gender,” “agency,” and “empowerment,” confirming these as the core conceptual pillars of the field, while closely connected sub-themes

such as health, gender equality, agriculture, autonomy, education, intimate partner violence, domestic violence, and poverty highlight the multidimensional nature of empowerment research. The presence of geographical keywords such as Bangladesh and India further signals a strong empirical focus on South Asian contexts. Overall, the dense interconnections across all three dimensions demonstrate a mature and well-structured research domain characterized by strong intellectual lineage, identifiable leading scholars, and a coherent yet diverse thematic agenda.

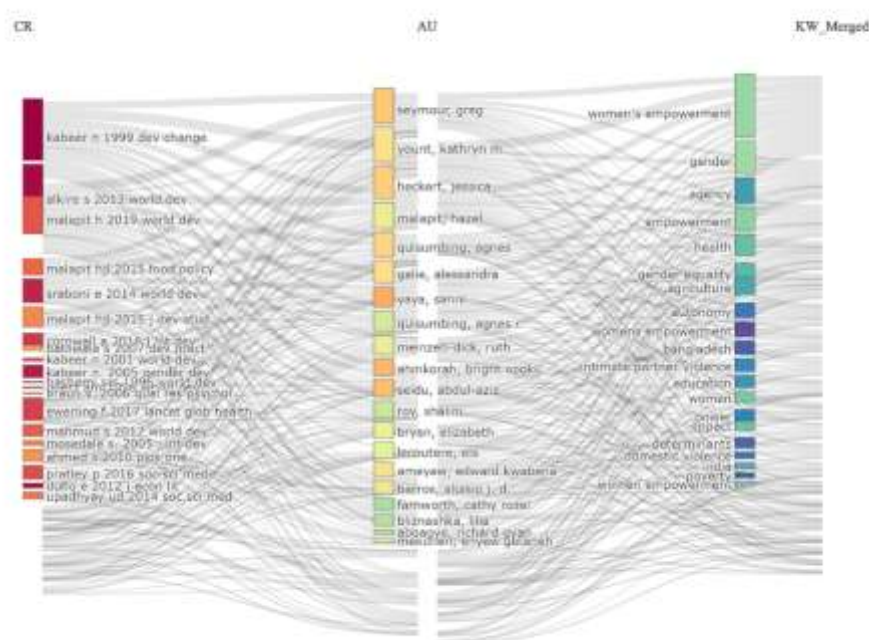


Figure 3. Three Field Plot

Figure 4 displays the most relevant publication sources in women’s empowerment research, highlighting a clear concentration of scholarly output within a core set of high-impact, interdisciplinary journals. *PLOS ONE* emerges as the leading source with 101 articles, reflecting its broad scope and strong engagement with gender, health, and development research. This is followed by *World Development* with 89 publications, underscoring the centrality of development economics and policy-oriented perspectives in shaping the field. *Sustainability* (63 articles) and *BMC Public Health* (53 articles) further illustrate the growing integration of

women’s empowerment with sustainability agendas and population health research. Journals with a more explicit gender focus, such as *Women’s Studies International Forum* (49 articles) and *BMC Women’s Health* (48 articles), also play a prominent role, indicating sustained attention to gender-specific theoretical and empirical issues. In addition, interdisciplinary outlets including *Social Science & Medicine* (37 articles), *BMC Pregnancy and Childbirth* (34 articles), *Development in Practice* (34 articles), and the *IDS Bulletin – Institute of Development Studies* (32 articles) contribute substantially, collectively demonstrating that women’s empowerment

research is anchored in a diverse but well-defined set of leading journals spanning development studies, public health, and social sciences.

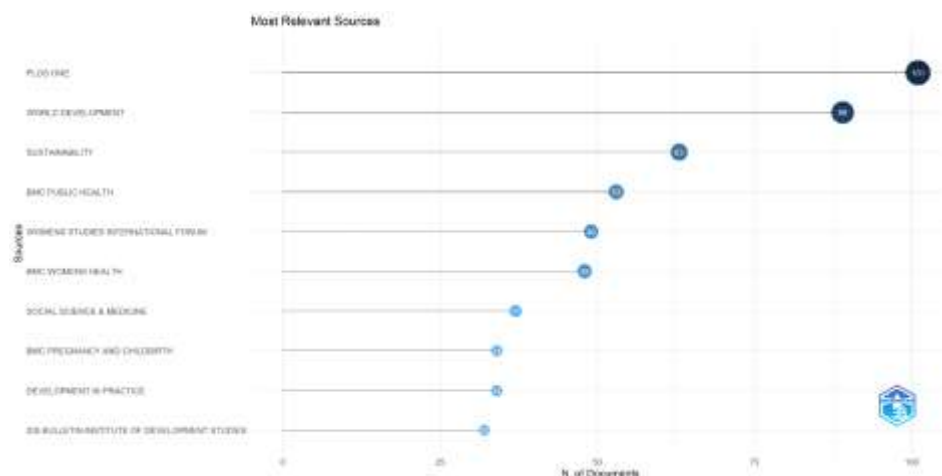


Figure 4. Most Relevant Sources

Figure 5 illustrates the cumulative production of leading sources over time, revealing distinct publication trajectories and the accelerating concentration of women's empowerment research within a small set of core journals. For much of the period from the early 1990s to the late 2000s, publication activity across all sources remained relatively modest and stable, indicating a gradual consolidation phase. From around 2014 onward, a pronounced acceleration is evident, with *World Development* and *PLOS ONE* showing the steepest cumulative growth, reflecting their central role in disseminating influential research at the intersection of gender, development, and policy. *Sustainability* and *BMC Public Health* display

particularly strong growth after 2018, suggesting increasing alignment of women's empowerment research with sustainability agendas and public health priorities. *Women's Studies International Forum* demonstrates a steady but comparatively moderate growth pattern, indicating sustained thematic specialization rather than rapid expansion. Overall, the figure highlights a clear shift toward intensified publication activity in multidisciplinary and development-oriented journals in the past decade, underscoring the maturation and increasing visibility of women's empowerment research across major scholarly outlets.

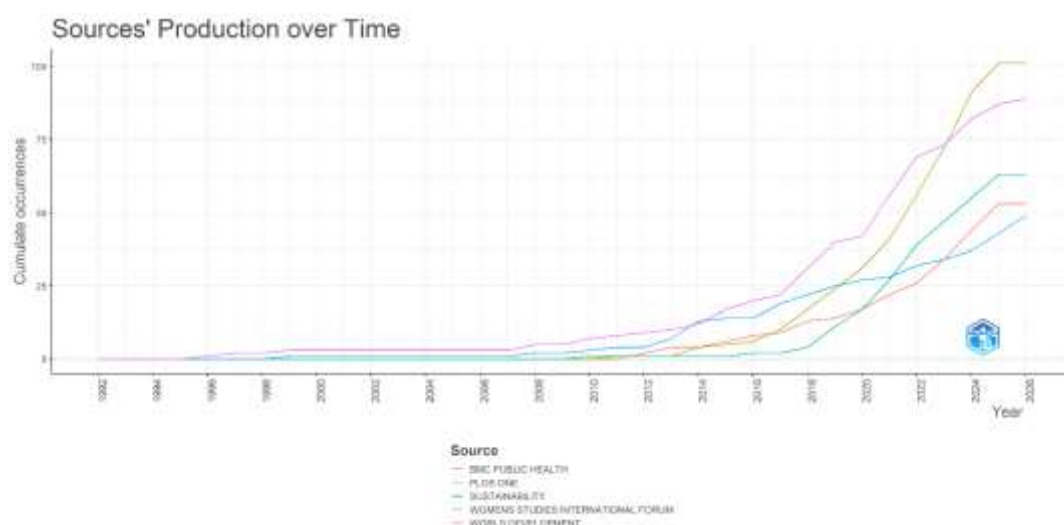


Figure 5. Sources' Production over Time

The analysis of author productivity identifies a concentrated group of leading contributors who have played a central role in shaping the women's empowerment literature (See Table 1). Sanni Yaya emerges as the most prolific author with 20 articles, followed closely by Bright Opoku Ahinkorah (18) and Abdul-Aziz Seidu (17), reflecting strong and sustained publication activity, particularly in collaborative public health-oriented research. Greg Seymour, with 16 articles, records the highest fractionalized output (4.00), indicating substantial intellectual contribution relative to co-authorship and underscoring his central role in influential collaborative work. Jessica Heckert and Agnes Quisumbing each contribute 15 articles, with relatively high fractionalized counts,

highlighting their importance in advancing measurement- and agriculture-focused empowerment research. Alessandra Galie and Kathryn M. Yount, each with 14 articles, further reinforce the prominence of gender, development, and empowerment scholarship across interdisciplinary contexts. Edward Kwabena Ameyaw (13 articles) and Aluisio J. D. Barros (12 articles) round out the leading group, reflecting strong engagement in empirical and health-related dimensions of women's empowerment. Overall, these patterns indicate a field driven by a relatively small but highly productive core of scholars, whose collaborative practices and sustained output have significantly shaped the intellectual structure of the literature.

Table 1. Most Relevant Authors

Authors	Articles	Articles Fractionalized
YAYA, SANNI	20	3.71
AHINKORAH, BRIGHT OPOKU	18	2.80
SEIDU, ABDUL-AZIZ	17	2.60
SEYMOUR, GREG	16	4.00
HECKERT, JESSICA	15	2.76
QUISUMBING, AGNES	15	3.09
GALIE, ALESSANDRA	14	2.69
YOUNT, KATHRYN M.	14	2.84
AMEYAW, EDWARD KWABENA	13	2.19
BARROS, ALUISIO J. D.	12	1.98

Figure 6 depicts authors' production over time and reveals a dynamic yet structured evolution of scholarly contributions to women's empowerment research, characterized by both foundational leadership and the rapid emergence of highly productive collaborative clusters. The figure shows that authors such as Agnes Quisumbing and Greg Seymour have exerted sustained, high-impact influence since the early 2010s, with prominent citation peaks linked to the development of landmark measurement tools, notably the Women's Empowerment in Agriculture Index (WEAI) and its project-level extension (PRO-WEAI). These contributions generated exceptionally high citations per year, underscoring their foundational role in shaping the field. From around 2019 onward, a pronounced surge in productivity and citation impact is visible among authors including Sanni Yaya, Bright Opoku

Ahinkorah, Abdul-Aziz Seidu, and Edward Kwabena Ameyaw, reflecting the consolidation of an active collaborative network primarily focused on public health outcomes, women's decision-making, and empowerment in Sub-Saharan African contexts. Authors such as Jessica Heckert, Alessandra Galie, and Kathryn M. Yount display concentrated periods of high impact, particularly around the development and application of empowerment indices, followed by steady engagement in subsequent years. Overall, the figure highlights two dominant and complementary research streams, measurement-driven empowerment research in agriculture and large-scale public health applications, while also demonstrating that the field has gained strong momentum in recent years, with intensified publication activity and continued scholarly relevance through 2024.

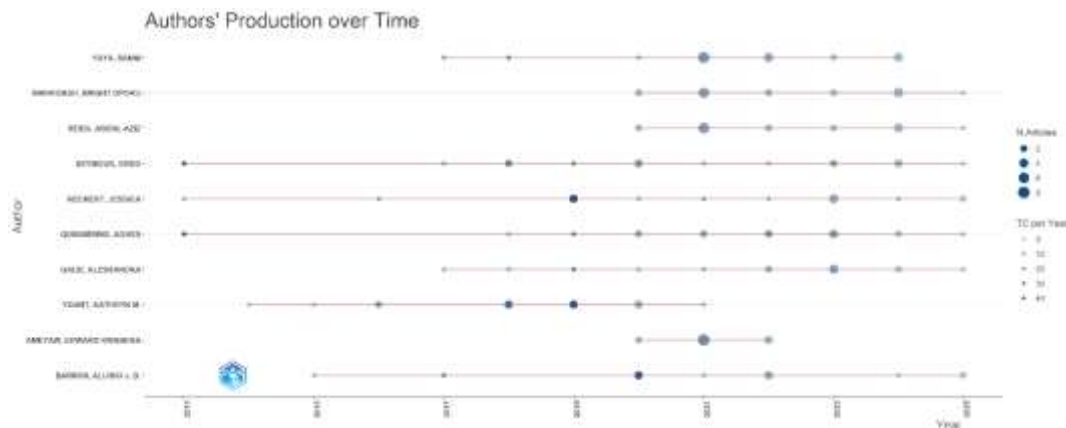


Figure 6. Authors' Production over Time

The analysis of institutional affiliations highlights a strong concentration of women's empowerment research within a small number of highly influential global research organizations and universities (See Table 2). CGIAR emerges as the most prolific institutional contributor with 248 articles, reflecting its central role in agriculture, food systems, and gender-focused development research. This is followed by the University of London (135 articles) and the International Food Policy Research Institute (IFPRI) with 122 publications, underscoring the prominence of development economics, policy analysis, and measurement-driven empowerment scholarship. The University of California system (118 articles) further illustrates the strong engagement of large, multidisciplinary academic networks in advancing this field. Notably, institutions from the Global South, such as the University of Gondar (112 articles) and the

University of Cape Coast (63 articles), feature prominently, indicating substantial research capacity and empirical focus in low- and middle-income country contexts. Leading U.S.-based public health institutions, including Emory University (81 articles) and Johns Hopkins University (76 articles), also contribute significantly, highlighting the close linkage between women's empowerment and population health research. Additionally, the presence of the Egyptian Knowledge Bank (65 articles) and the State University System of Florida (65 articles) reflects both national research infrastructure support and system-level academic engagement. Collectively, these patterns demonstrate that women's empowerment research is driven by a globally distributed yet interconnected set of institutions spanning development, agriculture, and public health domains.

Table 2. Most Relevant Affiliations

Affiliation	Articles
CGIAR	248
UNIVERSITY OF LONDON	135
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI)	122
UNIVERSITY OF CALIFORNIA SYSTEM	118
UNIVERSITY OF GONDAR	112
EMORY UNIVERSITY	81
JOHNS HOPKINS UNIVERSITY	76
EGYPTIAN KNOWLEDGE BANK (EKB)	65
STATE UNIVERSITY SYSTEM OF FLORIDA	65
UNIVERSITY OF CAPE COAST	63

Figure 7 illustrates country-level scientific production over time, highlighting both the global expansion and the unequal distribution of research output in women's empowerment studies. For much of the period from the early 1990s to the mid-2000s, publication activity across all countries remained relatively low and comparable, reflecting the formative stage of the field. From around 2010 onward, a clear divergence emerges, with the United States showing a markedly steeper growth trajectory and establishing itself as the dominant contributor, particularly after 2015. The United Kingdom and India also display strong and sustained growth, especially in the post-2018

period, indicating increasing engagement from both established research systems and rapidly expanding academic contexts. Ethiopia demonstrates notable acceleration in recent years, reflecting the growing empirical and policy-oriented focus on women's empowerment in low-income and development-focused settings. Australia, while contributing at a lower absolute volume, shows steady growth over time. Overall, the figure underscores the increasing globalization of women's empowerment research, while also revealing a concentration of output in a small number of high-capacity research countries, particularly during the most recent decade.

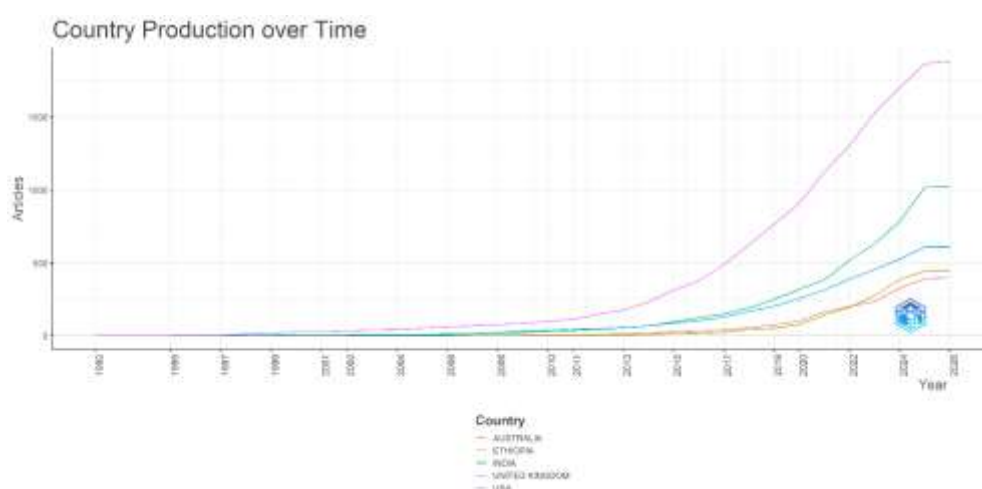


Figure 7. Country Production Over Time

Figure 8 presents the most globally cited documents in women's empowerment research, highlighting a small set of seminal works that have fundamentally shaped the field's theoretical, methodological, and policy-oriented foundations. Naila Kabeer's *Development and Change* article (1999) stands out as the most influential publication, with 2,516 total citations and a sustained citation rate of 89.86 citations per year, confirming its role as the central conceptual cornerstone for empowerment and gender-in-development scholarship. High-impact contributions published in *The Lancet*, particularly by Bhutta et al. (2013) and Ruel et al. (2013), underscore the strong integration of women's empowerment with global health and nutrition agendas, while exhibiting exceptionally

high citations per year and normalized citation scores. Foundational economic perspectives are represented by Duflo (2012) and Banerjee et al. (2015), whose works demonstrate very high normalized citation impact, reflecting their broad influence beyond gender studies into development economics and policy evaluation. Influential development-focused contributions by Alkire (2013) and Hashemi (1996) further emphasize the importance of multidimensional poverty, empowerment measurement, and early gender-development linkages. Collectively, the citation profile reveals that the intellectual core of women's empowerment research is anchored in a convergence of gender theory, development economics, public health, and nutrition, with a small number of landmark publications exerting disproportionate and enduring global influence.

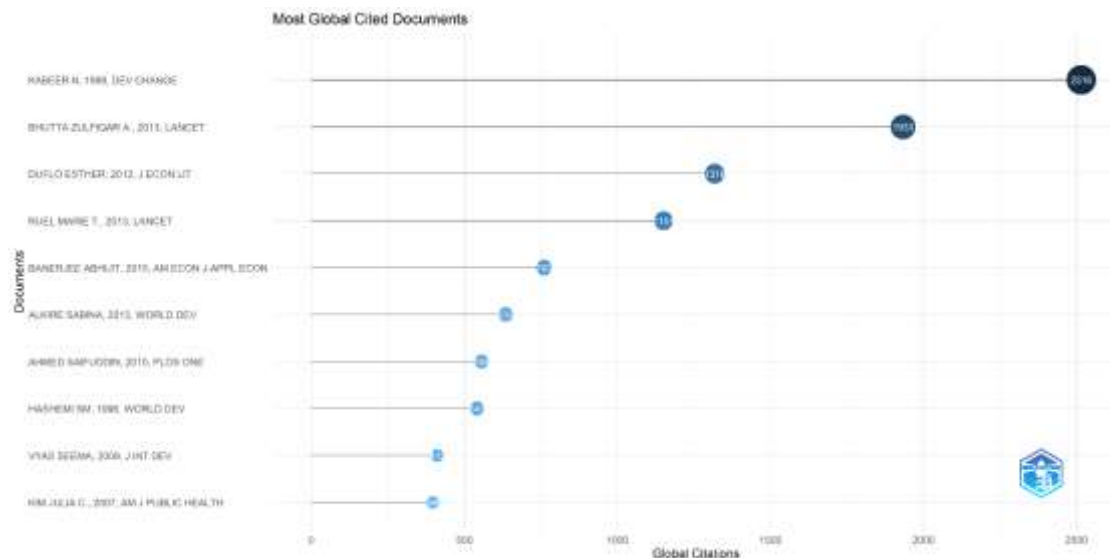


Figure 8. Most Global Cited Documents

Figure 9 presents the Reference Publication Year Spectroscopy (RPYS) analysis, offering a longitudinal view of the intellectual foundations underpinning women's empowerment research. The black citation curve shows a gradual accumulation of referenced literature from the 1970s onward, followed by a pronounced acceleration from the mid-1990s, reflecting the field's transition from an emergent to a consolidated research domain. Distinct citation peaks, highlighted by deviations from the five-year median, mark key intellectual turning points. Early peaks around 1970 and the 1980s correspond to foundational contributions in critical pedagogy, development economics, feminist theory, and methodological rigor,

which laid the conceptual and analytical groundwork for later scholarship. Prominent peaks in the 1990s and early 2000s signal the consolidation of gender, empowerment, and capability-based frameworks, while peaks after 2010 reflect the growing influence of applied, policy-relevant research on food security, nutrition, health, and rigorous impact evaluation. The sharp decline in the most recent years is attributable to citation lag rather than reduced scholarly activity. Overall, the RPYS pattern demonstrates that women's empowerment research is rooted in a rich interdisciplinary heritage and has progressively evolved toward empirically grounded and policy-oriented inquiry while continuing to draw heavily on a small set of enduring, highly influential theoretical works.

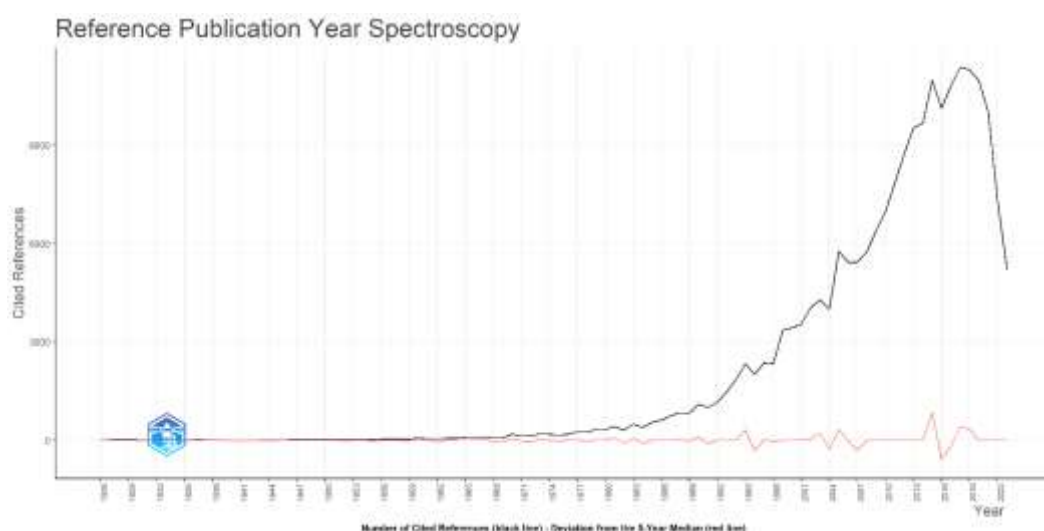
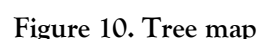


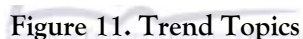
Figure 9. Reference Publication Year Spectroscopy

array of interconnected sub-themes, including *education, agriculture, agency, autonomy, gender equality, poverty, and decision-making*, indicating the multidimensional nature of empowerment research. Geographic terms such as *India, Bangladesh, Africa, Sub-Saharan Africa, and Ethiopia* point to strong empirical engagement with low- and middle-income country contexts. Additionally, the presence of keywords related to *intimate partner violence, domestic violence, microfinance, nutrition, fertility, and policy* demonstrates the integration of social, economic, and health-related perspectives. Overall, the treemap highlights a field characterized by both a clear conceptual core and substantial thematic diversity, reflecting the broad and interdisciplinary scope of women's empowerment research.



Development Goals, alongside methodological concerns including qualitative methods and evaluation. During the mid-phase (2016–2019), the thematic focus broadened to include context-specific and intervention-oriented issues, with increased attention to HIV/AIDS, male involvement, rural credit programs, and country-specific studies in contexts such as Sri

to the field. In the most recent years (2023–2024), emerging topics such as conflict, index-based measures, inclusion, and impacts appear, though with smaller frequencies that likely reflect data incompleteness and citation lag rather than declining interest. Overall, the figure demonstrates the maturation of the field from narrowly defined development and health concerns toward a more integrated, gender-centered, and empowerment-focused research agenda with growing conceptual coherence and global relevance.



streams. In contrast, the second cluster, characterized by *women's empowerment*, *women empowerment*, and *empowerment* with comparatively lower confidence levels, occupies a lower-centrality position while maintaining similar impact. This configuration suggests an emerging or less integrated thematic area that is still developing its internal coherence and external linkages. Overall, the strategic map demonstrates that women's empowerment research is anchored by a dominant, mature core centered on gender and empowerment, alongside a secondary cluster that reflects ongoing conceptual consolidation and potential future growth.

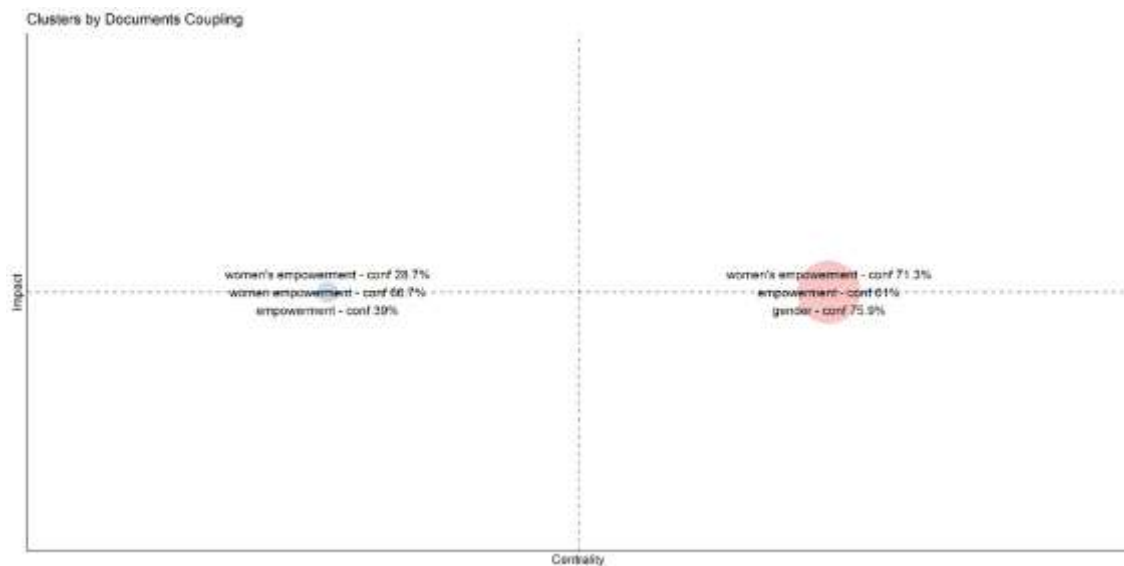


Figure 12. Clusters by Documents Coupling

Figure 13 presents the strategic thematic map based on relevance (centrality) and development (density), offering a synthesized view of the maturity and structural importance of key themes in women's empowerment research. The map is divided into four conceptual quadrants, motor, niche, emerging/declining, and basic themes, yet only two are populated, indicating a field characterized by a strong core and an active frontier of conceptual development. The dominant cluster located in the upper-right quadrant represents a motor theme centered on *women's empowerment*, *health*, and *agriculture*. Its high centrality indicates that this theme is deeply embedded in the overall knowledge structure and strongly connected to multiple research areas, while its high density reflects a well-developed and internally coherent body of scholarship. This positioning confirms that the intersection of empowerment, health, and agriculture constitutes the primary driving force

of the field, supported by a substantial volume of mature, policy-relevant, and empirically grounded research. In contrast, a second cluster located in the lower-left quadrant comprises *gender*, *empowerment*, and *women empowerment*, corresponding to an emerging theme characterized by lower centrality and density. Although currently less integrated and less internally consolidated, this cluster is populated by very recent and influential publications, suggesting an active process of theoretical exploration and conceptual refinement rather than decline. Notably, the absence of clusters in the niche and basic quadrants indicates that the field lacks isolated specialized topics and underdeveloped foundational themes, pointing instead to a convergence around a dominant applied core alongside a rapidly evolving theoretical frontier that is likely to shape future research directions.

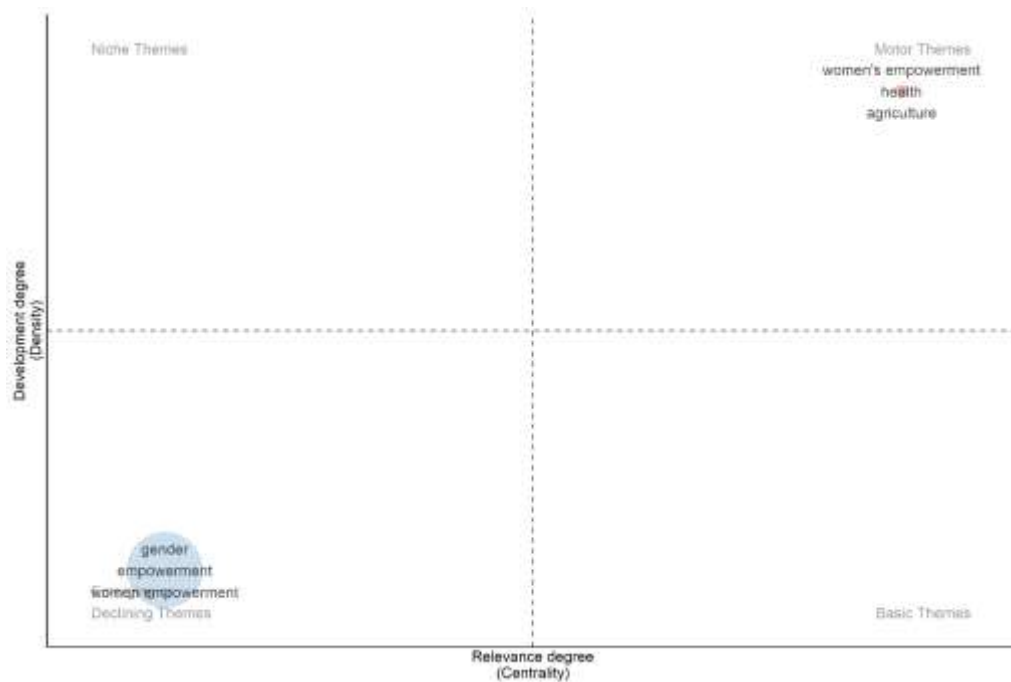


Figure 13. Strategic Thematic map

Figure 14 presents the conceptual structure map derived using Multiple Correspondence Analysis (MCA), illustrating the underlying thematic organization of women's empowerment research based on keyword co-occurrence patterns. The two extracted dimensions jointly explain over 60% of the total variance (Dim 1 = 39.97%; Dim 2 = 21.6%), indicating a robust representation of the field's conceptual space. Dimension 1 differentiates research emphasizing empowerment, agency, and economic participation from studies centered on adverse social and health challenges, particularly gender-based violence. On the left side of this axis, keywords such as *women's empowerment*, *gender equality*, *entrepreneurship*, *work*, and *management* cluster together, reflecting proactive and developmental approaches to empowerment. In contrast, the right side is dominated by *domestic violence*, *intimate partner violence*, *prevalence*, *behavior*, and *health*, capturing a substantial body of literature focused on violence, health burdens, and psychosocial

outcomes. Dimension 2 distinguishes between macro-structural and contextual research at the top, characterized by *food security*, *agriculture*, *resources*, *autonomy*, *decision-making*, and country contexts such as *Bangladesh*, and more micro-level or individual-oriented themes at the bottom, including *attitudes*, *behavior*, *entrepreneurship*, and *fertility*. Three broad conceptual clusters emerge: an agricultural and food-security-oriented empowerment cluster (top-left), a central cluster encompassing core gender, education, and economic participation themes (mid-left/center, with strong representation of *India*), and a distinct cluster focused on gender-based violence and related health outcomes (right). Overall, the map reveals a field structured around interconnected yet clearly differentiated research fronts, demonstrating how women's empowerment scholarship integrates development, economic participation, and health while also addressing persistent social challenges.

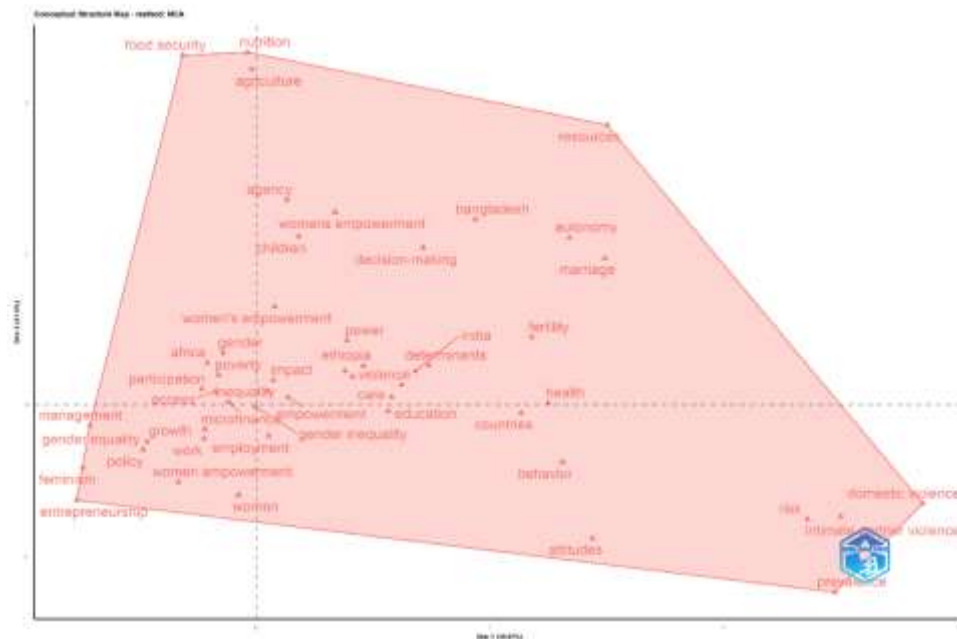


Figure 14. Factorial Map

Figure 15 presents the country collaboration map, illustrating the global structure and intensity of international research partnerships in women's empowerment studies. The visualization reveals a highly interconnected but uneven collaboration network dominated by a small number of major scientific hubs. The United States emerges as the central global node, with the highest research output and the densest set of international linkages, serving as the primary connector across regions. Western European countries, particularly the United Kingdom, Germany, France, Italy, Spain, and the Netherlands, form a second core hub, characterized by strong internal collaboration and extensive transatlantic ties with North America. Together, this North American-European axis constitutes the backbone of global knowledge production and exchange in the field. In East Asia, China stands out as a rapidly

expanding and influential hub, displaying extensive collaborative links with both the United States and European countries, while Japan and South Korea also contribute meaningfully to the global network. Other advanced research systems, including Canada and Australia, are deeply integrated into this structure, reinforcing strong Anglosphere collaboration patterns. Emerging regional hubs such as India, Brazil, and South Africa show growing connectivity, particularly through partnerships with established centers in North America and Europe, reflecting increasing participation from the Global South. Overall, the map depicts a hub-and-spoke model of collaboration driven more by scientific capacity and institutional strength than by geographic proximity, while also reflecting known database biases toward English-language and Western-centered scholarship.

Country Collaboration Map

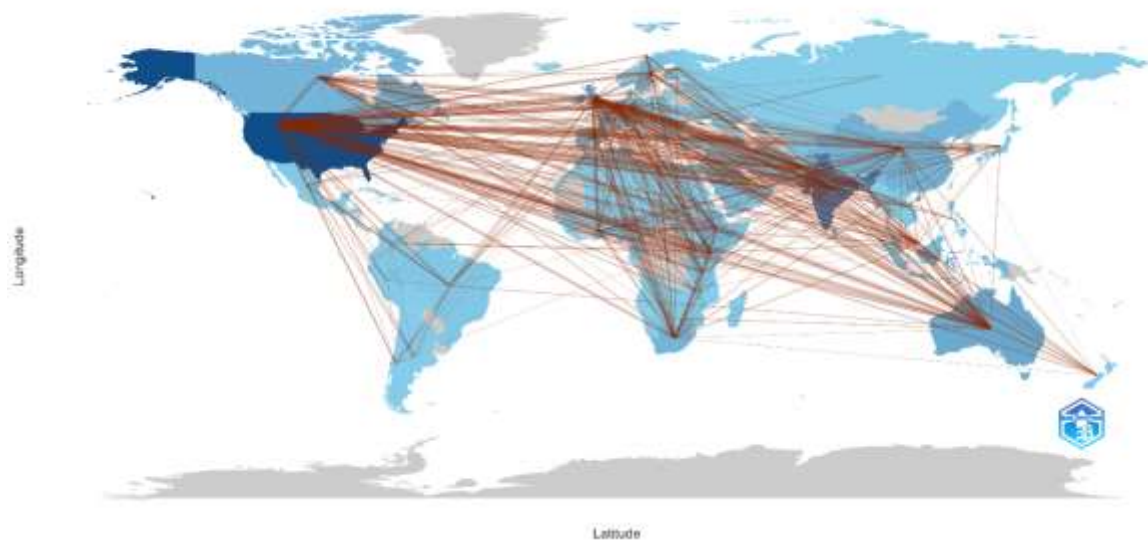


Figure 15. Country Collaboration Map

Discussion

The bibliometric analysis shows that women's empowerment has matured into a large, rapidly growing, and conceptually coherent research domain anchored in development, health, and agriculture, while simultaneously diversifying into newer areas such as digital media, tourism, philanthropy, and higher education. Publication growth since the mid-2000s, the concentration of citations around a small set of landmark works, and the clustering of keywords around empowerment, gender, health, and agriculture together indicate a field that has moved from scattered case studies to a structured, multi-disciplinary knowledge system. At the same time, the analysis reveals persistent asymmetries in where knowledge is produced, which themes receive the most attention, and how empowerment is conceptualised and measured, patterns that echo long-standing critiques in the literature about fragmentation, Northern dominance, and the risk of depoliticising empowerment through overly technical metrics (Kabeer, 1999; Costa et al., 2023; Priya et al., 2021).

Evolution and Intellectual Foundations of Women's Empowerment Research (RQ1)

The temporal and citation analyses demonstrate that women's empowerment research has evolved through distinct phases, each associated with specific intellectual turning points. The low and relatively flat output of the 1990s and early

2000s corresponds to a formative period when empowerment was being theorised and introduced into development and gender scholarship, with Kabeer's (1999) articulation of resources–agency–achievements emerging as the undisputed conceptual anchor. The sharp citation peak around the late 1990s and early 2000s in the RPYS curve confirms that this period produced enduring theoretical benchmarks on gender, capabilities, and participation that later work repeatedly draws on. From the mid-2000s onward, steady increases in publication volume and average citations per article signal the consolidation of empowerment as both an analytical construct and a development objective, particularly as global policy frameworks such as the MDGs and SDGs foreground gender equality.

A second inflection point appears in the early 2010s, when highly cited contributions in global health and measurement transformed the field's empirical backbone. The Lancet series on maternal and child nutrition and women's status, the development of the Women's Empowerment in Agriculture Index (WEAI), and the introduction of the SWPER index for Africa collectively shifted empowerment research toward quantified, cross-country comparison and evaluation (Alkire et al., 2013; Bhutta et al., 2013; Ewerling et al., 2017). The strong citation performance of these works in the current dataset shows that they function not only as methodological tools but also as gateways

linking gender scholarship to mainstream economics, nutrition, and public health. The most recent decade, characterised by a 9.8% annual growth rate, reflects this dual movement: on the one hand, a continued reliance on a small canon of foundational references; on the other, an explosion of empirical applications in diverse contexts, from South Asia and Sub-Saharan Africa to Latin America. This pattern supports Priya et al.'s (2021) argument that the field has moved from merely advocating for empowerment to grappling with its operationalisation and empirical consequences at scale.

Thematic Structure: Dominant, Emerging and Structurally Central Themes (RQ2)

The thematic analyses, combining keyword treemaps, trend-topic timelines, strategic maps, and MCA, reveal a field organised around a clear conceptual core and several interlocking clusters. The dominance of “gender,” “women’s empowerment,” and related variants at the centre of the treemap confirms that empowerment is not just a peripheral descriptor but the primary organising frame of the literature. Around this core, two sets of themes stand out as structurally central. First, empowerment in relation to agriculture, food security, and nutrition forms a robust motor theme, as shown by its high centrality and density in the strategic maps. This reflects the influence of WEAI and PRO-WEAI and the extensive body of work demonstrating how agricultural decision-making, control over resources, and production diversity mediate nutrition and livelihood outcomes (Alkire et al., 2013; Malapit et al., 2019; Quisumbing et al., 2023). Second, health and reproductive outcomes, including contraceptive use, maternal health service utilisation, intimate partner violence, and maternal mental health, constitute another well-developed hub, particularly in African and South Asian settings (Ahmed et al., 2010; Dadras et al., 2022). These two hubs correspond closely to the twin streams that current reviews identify as the most empirically advanced: empowerment-agriculture-food systems and empowerment-health-fertility (Costa et al., 2023; Priya et al., 2021).

The MCA-based conceptual map further clarifies how these hubs are positioned within a

broader landscape that also includes gender-based violence and economic participation. One axis differentiates proactive, developmental themes, such as entrepreneurship, work, management, and gender equality, from studies foregrounding violence, prevalence, and health burdens, suggesting that empowerment research oscillates between agency-centred framings and analyses of structural harm. The second axis distinguishes macro-structural topics like food security, agriculture, and national contexts (Bangladesh, India) from micro-level concerns such as attitudes, behaviour, and fertility. Three broad clusters emerge: an agriculture and food-security cluster; a central cluster around education, economic participation, and gender equality; and a violence and health cluster. Notably, empowerment and gender act as bridges connecting these clusters, indicating that the field is more integrated than earlier domain-specific reviews suggested. At the same time, trend-topic analysis shows a clear temporal shift: early work focused on specific health crises and development agendas (AIDS, population, MDGs), whereas recent years are dominated by more abstract empowerment and gender terms, alongside emerging interest in conflict, inclusion, and index-based measures. This confirms that the research agenda has moved from programmatically bounded topics toward conceptually driven, cross-sectoral questions, while still leaving certain areas, such as environmental sustainability or digital harms, underexplored.

Authorship, Institutions and Global Collaboration Patterns (RQ3)

The performance and network indicators for authors, institutions, and countries show that women’s empowerment research is both globally distributed and highly unequal. A small, cohesive group of scholars has played an outsized role in defining the field’s measurement infrastructure and empirical applications. Authors such as Agnes Quisumbing, Greg Seymour, Jessica Heckert, Alessandra Galie, and Kathryn Yount are centrally positioned in co-authorship and citation networks because of their contributions to WEAI, PRO-WEAI, and related agricultural empowerment measures (Alkire et al., 2013; Malapit et al., 2019; Yount

et al., 2019). Their work anchors one of the two main research streams identified in the results: measurement-driven, agriculture-focused empowerment research that often operates through large consortia such as CGIAR and IFPRI. The second stream is driven by highly productive public-health researchers, notably Sanni Yaya, Bright Opoku Ahinkorah, Abdul-Aziz Seidu, and Edward Kwabena Ameyaw, who frequently use DHS data to examine women's decision-making, skilled birth attendance, and reproductive health across multiple African contexts. Together, these streams reveal how methodological innovation and large comparative datasets can catalyse sustained collaborative networks and high citation impact.

Institutional and country-level analyses reinforce this pattern of concentrated yet globally dispersed capacity. CGIAR, IFPRI, the University of London, the University of California system, Emory, Johns Hopkins, and universities in Ethiopia and Ghana form a dense institutional core that spans agriculture, development economics, and public health. At the national level, the United States stands out as the primary hub, both in volume of output and in international co-authorship ties, followed by the United Kingdom and, increasingly, India and Ethiopia. The country collaboration map reveals a hub-and-spoke structure typical of many global scientific fields: North American and Western European institutions function as central brokers, while emerging hubs in the Global South connect through partnerships rather than as independent centres of gravity. This configuration aligns with broader critiques of epistemic inequality and the reproduction of North-South hierarchies in development research (Priya et al., 2021). At the same time, the relatively high rate of international co-authorship and the visible presence of Global South institutions suggest that empowerment research is more collaborative and geographically diverse than in earlier decades, offering opportunities for more equitable agenda-setting if power imbalances within collaborations are actively addressed.

Limitations and Future Recommendations

Several limitations qualify these findings. Relying exclusively on the Web of Science Core

Collection and restricting the search to English-language titles containing “women empowerment” or “women’s empowerment” inevitably biases the corpus toward mainstream, indexed journals and articles that explicitly foreground empowerment in their titles. Important contributions published in non-indexed regional journals, in languages other than English, or under broader feminist or development framings without using the exact term in the title are likely under-represented. The focus on journal articles also excludes books, reports, and grey literature where much feminist theorising and movement-based knowledge about empowerment resides. In addition, citation-based indicators are affected by time lags; recent publications, regions with lower indexing coverage, and qualitative or critical work that is less frequently cited may appear less influential than they are in practice. Finally, bibliometric techniques capture patterns of co-occurrence and collaboration but cannot by themselves assess the quality of evidence, the politics of knowledge production, or the lived experiences behind empowerment metrics.

Future research should therefore pursue at least four directions. First, extending the analysis to additional databases such as Scopus and Dimensions, and incorporating non-English and grey literature, would provide a more inclusive map of women’s empowerment scholarship and better represent contributions from the Global South and from critical feminist traditions. Second, combining bibliometrics with systematic qualitative content analysis or meta-synthesis of key thematic clusters, especially on gender-based violence, digital technologies, and environmental sustainability, would deepen understanding of how empowerment is framed, whose voices are centred, and which causal mechanisms are proposed. Third, methodological work is needed to compare and harmonise empowerment indices across sectors, assess their predictive validity for diverse outcomes, and explore how different measurement choices shape policy targeting and evaluation (Costa et al., 2023). Finally, future bibliometric studies could explicitly examine issues of epistemic justice by analysing authorship demographics, funding sources, and leadership roles within collaborations, with the goal of informing

strategies that shift women's empowerment research toward more locally led, decolonial, and intersectional knowledge production.

References

- Adeleye, O. R., Olivo, M. L. O., & Farkas, T. (2024). A bibliometric analysis of women's empowerment studies post Sustainable Development Goal adoption periods (2015–2022). *Sustainability*, 16(4), 1499. <https://doi.org/10.3390/su16041499>
- Ahmed, S., Creanga, A. A., Gillespie, D. G., & Tsui, A. O. (2010). Economic status, education and empowerment: Implications for maternal health service utilization in developing countries. *PLOS ONE*, 5(6), e11190. <https://doi.org/10.1371/journal.pone.0011190>
- Alam, N., Hajizadeh, M., Dumont, A., & Fournier, P. (2015). Inequalities in Maternal Health Care Utilization in Sub-Saharan African Countries: A Multiyear and Multi-Country Analysis. *PLOS ONE*, 10(4), e0120922. <https://doi.org/10.1371/journal.pone.0120922>
- Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., & Vaz, A. (2013). The Women's Empowerment in Agriculture Index. *World Development*, 52, 71–91. <https://doi.org/10.1016/j.worlddev.2013.06.007>
- 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>
- Banerjee, A., Duflo, E., Goldberg, N., Karlan, D., Osei, R., Parienté, W., Shapiro, J., Thuysbaert, B., & Udry, C. (2015). Development economics. A multifaceted program causes lasting progress for the very poor: Evidence from six countries. *Science (New York, N.Y.)*, 348(6236), 1260799. <https://doi.org/10.1126/science.1260799>
- Bhutta, Z. A., Das, J. K., Rizvi, A., Gaffey, M. F., Walker, N., Horton, S., Webb, P., Lartey, A., & Black, R. E. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *The Lancet*, 382(9890), 452–477. [https://doi.org/10.1016/s0140-6736\(13\)60996-4](https://doi.org/10.1016/s0140-6736(13)60996-4)
- Costa, J. C., Saad, G. E., Hellwig, F., & Barros, A. J. D. (2023). Measures of women's empowerment based on individual-level data: A literature review with a focus on the methodological approaches. *Frontiers in Sociology*, 8, 1231790. <https://doi.org/10.3389/fsoc.2023.1231790>
- Dadras, O., Dadras, M., Jafari, L., & Dadras, F. (2022). Women empowerment and access to maternity and reproductive healthcare in Pakistan: Cross-validation of a survey-based index in Afghanistan (SWEI-A). *BMC Women's Health*, 22, 194. <https://doi.org/10.1186/s12905-022-02031-2>
- Dellie, E., Tiruneh, M. G., Jejaw, M., & Worku, N. (2024). What factors influence women's empowerment in Ethiopia? A multilevel analysis of Ethiopia's Demographic and Health Survey data. *Frontiers in Global Women's Health*, 5, 1463157. <https://doi.org/10.3389/fgwh.2024.1463157>
- Devi, S., Thinakaran, R., Hanefar, S. B., & Mohd Nadzri, N. R. (2024). Tracking academic contributions to women's empowerment in Malaysia: A bibliometric investigation. *Heliyon*, 10(10), e37052. <https://doi.org/10.1016/j.heliyon.2024. e37052>
- Doss, C., & Rubin, D. (2025). Women's empowerment in agriculture: Reflections from a long-term collaboration using mixed methods. *Feminist Economics*, 31(2), 71–96. <https://doi.org/10.1080/13545701.2025.2482537>

- Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051–1079. <https://doi.org/10.1257/jel.50.4.1051>
- Ewerling, F., Lynch, J. W., Victora, C. G., van Eerdewijk, A., Tysler, M., & Barros, A. J. D. (2017). The SWPER index for women's empowerment in Africa: Development and validation of an index based on survey data. *The Lancet. Global Health*, 5(9), e916–e923. [https://doi.org/10.1016/s2214-109x\(17\)30292-9](https://doi.org/10.1016/s2214-109x(17)30292-9)
- Fatima, U., Ahmad, N., Menegaki, A. N., & Wang, H. (2025). How do information and communication technologies (ICTs) empower women? *Women's Studies International Forum*, 103, 103057. <https://doi.org/10.1016/j.wsif.2025.103057>
- Fauzi, M. A., Tan, C. N.-L., Muhamad Tamyaz, P. F., & Wider, W. (2024). Women leadership in higher education: Past, present and future trends. *Asian Education and Development Studies*, 13(2), 201–221. <https://doi.org/10.1108/AEDS-11-2023-0168>
- Gera, N., & Rohatgi, S. (2025). A bibliometric analysis of women's economic empowerment literature. *International Journal of Services, Economics and Management*, 13(1), 1–24. <https://doi.org/10.1504/IJSEM.2025.150785>
- Gillespie, E. M. (2023). Empowerment-focused philanthropy: Bridging feminist theories and organizational practices through U.S. women's funds. *Administrative Theory & Praxis*, 45(4), 313–332. <https://doi.org/10.1080/10841806.2021.1984103>
- Goldman, M. J., & Little, J. S. (2015). Innovative grassroots NGOs and the complex processes of women's empowerment: An empirical investigation from Northern Tanzania. *World Development*, 66, 762–777. <https://doi.org/10.1016/j.worlddev.2014.09.005>
- Hashemi, S. M., Schuler, S. R., & Riley, A. P. (1996). Rural credit programs and women's empowerment in Bangladesh. *World Development*, 24(4), 635–653. [https://doi.org/10.1016/0305-750X\(95\)00159-A](https://doi.org/10.1016/0305-750X(95)00159-A)
- Hogan, V. K., De Araújo, E. M., Caldwell, K. L., & Black, K. Z. (2018). “We black women have to kill a lion everyday”: An intersectional analysis of racism and social determinants of health in Brazil. *Social Science & Medicine*, 199, 96–105. <https://doi.org/10.1016/j.socscimed.2017.07.008>
- Hung, S.-L., Fung, K.-K., & Lau, S.-M. (2020). Intersectionality and gender: Community practice with low-income migrant women. *Community Development Journal*, 55(4), 716–735. <https://doi.org/10.1093/cdj/bsz026>
- Kabeer, N. (1999). Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment. *Development and Change*, 30(3), 435–464. <https://doi.org/10.1111/1467-7660.00125>
- Kausar, Z. (2022). Women's empowerment in UN documents: Neither a safe haven nor a Pandora's box, Need for a holistic perspective. *International Journal of Islamic Thought*, 21(1), 54–66. <https://doi.org/10.24035/ijit.21.2022.232>
- Khamis, S., & Dogbatse, F. S. (2025). “I’m Bisan from Gaza and I’m still alive”: Palestinian digital feminism and intersectional narratives of resistance. *Feminist Encounters*, 9(1), 1–12. <https://doi.org/10.20897/femenc/16025>
- Kim, J. C., Watts, C. H., Hargreaves, J. R., Ndhlovu, L. X., Phetla, G., Morison, L. A., Busza, J., Porter, J. D. H., & Pronyk, P. (2007). Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. *American Journal of Public Health*, 97(10), 1794–1802. <https://doi.org/10.2105/AJPH.2006.095521>

- Kumar, A., & Mishra, S. (2022). Exploring future research agenda for rural mother's empowerment: A study at the intersection of bibliometric and systematic literature review. *South Asian Journal of Business and Management Cases*, 11(3), 313–328. <https://doi.org/10.1177/2277977922115804>
- Libório, M. P., Diniz, A. M. A., Pinto, M. D. R., & Bernardes, P. (2025). Representing social exclusion in geographic space: Interpretability or informational power? *Socio-Economic Planning Sciences*, 91, 102262. <https://doi.org/10.1016/j.seps.2025.102262>
- Liu, D., Bjaalid, G., Menichelli, E., & Sun, X. (2024). Empowering women in academia: Navigating institutional dynamics, gender roles, and personal pursuits among female researchers in Norwegian higher education. *Journal of Asian Public Policy*, 17(3), 345–366. <https://doi.org/10.1080/17516234.2024.2386721>
- Mahato, T., Jha, M. K., Nayak, A. K., & Kaushal, N. (2023). Empowerment of women through participation in self-help groups: A bibliometric analysis and systematic review. *Journal of Enterprising Communities*, 17(1), 156–183. <https://doi.org/10.1108/JEC-08-2022-0114>
- Malapit, H., Quisumbing, A., Meinzen-Dick, R., Seymour, G., Martinez, E. M., Heckert, J., Rubin, D., Vaz, A., & Yount, K. M. (2019). Development of the project-level Women's Empowerment in Agriculture Index (pro-WEAI). *World Development*, 122, 675–692. <https://doi.org/10.1016/j.worlddev.2019.06.018>
- Mandal, M., Muralidharan, A., & Pappa, S. (2017). A review of measures of women's empowerment and related gender constructs in family planning and maternal health program evaluations in low- and middle-income countries. *BMC Pregnancy and Childbirth*, 17, 150. <https://doi.org/10.1186/s12884-017-1500-8>
- Miedema, S. S., Haardörfer, R., Webb-Girard, A. W., & Yount, K. M. (2018). Women's empowerment in East Africa: Development of a cross-country comparable measure. *World Development*, 110, 453–464. <https://doi.org/10.1016/j.worlddev.2018.05.031>
- Pratley, P. (2016). Associations between quantitative measures of women's empowerment and access to care and health status for mothers and their children: A systematic review of evidence from the developing world. *Social Science & Medicine*, 169, 119–131. <https://doi.org/10.1016/j.socscimed.2016.08.001>
- Priya, P., Venkatesh, A., & Shukla, A. (2021). Two decades of theorising and measuring women's empowerment: Literature review and future research agenda. *Women's Studies International Forum*, 87, 102495. <https://doi.org/10.1016/j.wsif.2021.102495>
- Quisumbing, A., Cole, S., Elias, M., & Trolier-McKinstry, J. (2023). Measuring women's empowerment in agriculture: Innovations and evidence. *Global Food Security*, 37, 100707. <https://doi.org/10.1016/j.gfs.2023.100707>
- Rafiq, S., Kamran, F., Zia, F., Munir, I., & Afzal, A. (2024). The Challenges and Opportunities of Female Leadership in Educational Institutions in Punjab Pakistan. *Remittances Review*, 9(2), 4245–4262. <https://doi.org/10.33282/rr.vx9i2.221>
- Ruel, M. T., & Alderman, H. (2013). Nutrition-sensitive interventions and programmes: How can they help to accelerate progress in improving maternal and child nutrition? *Lancet*, 382(9891), 536–551. [https://doi.org/10.1016/%20S0140-6736\(13\)60843-0](https://doi.org/10.1016/%20S0140-6736(13)60843-0)
- Scheyvens, R. (2020). Empowerment. In *International encyclopedia of human geography* (2nd ed., pp. 477–482). Elsevier. <https://doi.org/10.1016/B978-0-08-102295-5.10817-0>

- Serra, R., McKune, S., Ludgate, N., & Russo, S. (2025). Intersectionality matters: An analysis of women's empowerment among livestock holders in Nepal, Senegal and Uganda. *World Development*, 176, 107000. <https://doi.org/10.1016/j.worlddev.2025.107000>
- Shaikh, M. K. (2021). Mapping of women's empowerment research performance in the global perspectives: A scientometric study. *Library Philosophy and Practice (e-journal)*, Article 5488. <https://digitalcommons.unl.edu/libphilprac/5488/>
- Singh, B., & Singh, S. K. (2025). Evolving dimensions of women's empowerment in India. *PLOS ONE*, 20(7), e0327494. <https://doi.org/10.1371/journal.pone.0327494>
- Suwana, F., & Lily. (2017). Empowering Indonesian women through building digital media literacy. *Kasetsart Journal of Social Sciences*, 38(3), 212–217. <https://doi.org/10.1016/j.kjss.2016.10.004>
- UN Women. (2023). *Progress on the Sustainable Development Goals: The gender snapshot 2023*. United Nations Entity for Gender Equality and the Empowerment of Women. <https://www.unwomen.org/en/digital-library/publications/2023/09/progress-on-the-sustainable-development-goals-the-gender-snapshot-2023>
- Upadhyay, U. D., Gipson, J. D., Withers, M., Lewis, S., Ciaraldi, E. J., Fraser, A., Huchko, M. J., & Prata, N. (2014). Women's empowerment and fertility: A review of the literature. *Social Science & Medicine*, 115, 111–120. <https://doi.org/10.1016/j.socscimed.2014.06.014>
- Wang, Z., Leung, X. Y., & Huang, X. (2025). Empowering women through tourism: a systematic literature review. *Current Issues in Tourism*, 1–23. <https://doi.org/10.1080/13683500.2025.2556985>
- Williams, K. S. (2025). Gender, empowerment and social innovation. In S. Gidley & F. Moulaert (Eds.), *Handbook on social innovation and gender* (pp. 455–478). Edward Elgar. <https://doi.org/10.4337/9781035306459.00055>
- Yount, K. M., Cheong, Y. F., Maxwell, L., Heckert, J., Martinez, E. M., & Seymour, G. (2019). Measurement properties of the project-level Women's Empowerment in Agriculture Index. *World Development*, 124, 104639. <https://doi.org/10.1016/j.worlddev.2019.104639>