

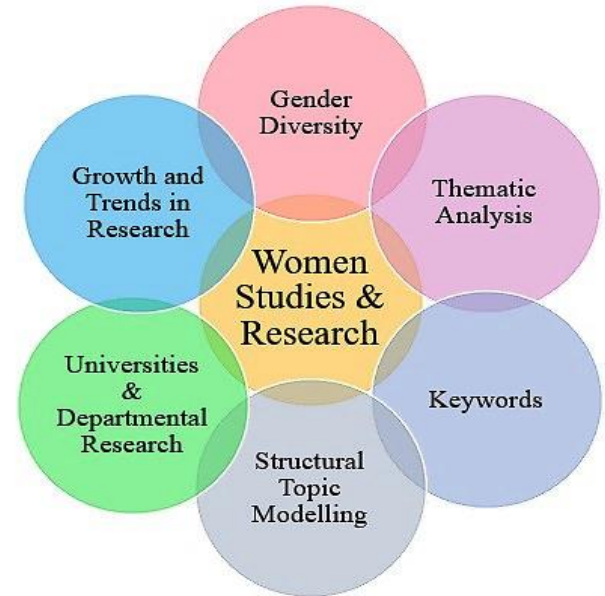
Trends in **Women Studies**, 2011-2020: A **Computational Text Analysis**

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Acknowledgement

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Public Policy Implications of Social Sciences Doctoral Research Carried Out in Indian Universities: Content Analysis Based on Awarded Doctoral Theses

Major Thrust Areas



Why Women Studies? its Importance?



Research Pattern on PhD Theses



Computational Text mining



Women Issues in Indian Context



Objectives

- ◆ To investigate the main topics of Women's Studies subject area during 2011-2020 and available in the Shodhganga repository;
- ◆ Highlight the gender diversity among researchers and supervisors in Women's Studies;
- ◆ Determine the Indian universities and their specific departments or centers that exhibit higher research output;
- ◆ Identify hierarchical structure of research issues in the theses on women studies.

Data

Data Collection

Database Selection

Sodhganga e-thesis Repository
Year-2011-2020.

Search Design

Women Studies subject areas.
Keywords used 'Women studies', 'Gender Diversity', 'Social welfare', 'social issues', 'tradition and culture', 'women empowerment', 'women worker', 'self-help', 'women employees', 'slum', 'Violence', 'Prostitute', 'women rights'

Manual Selection

Visit all the identified theses handle. Manually copied title, abstract, keywords, author name and respective supervisors, universities and departments where published the theses and year of completion.

Pre-processing

Total Document

We found a total of **1720** theses.

Remove Duplicates

After manually checking, we **exclude 9** of theses of repetition of the same title.

Final Selection

Found 2,208 theses published in women's studies subject areas. **312 (193+119) theses were excluded** because these were published other than in the English language (193 in Hindi/119 other languages etc.)

10 theses were excluded because they were unable to be downloadable, and Bitstream has changed
Finally, **selected 1389 theses** for this study.

Analysis

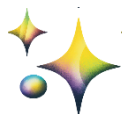
Computational Text Analysis

Adopting quantitative thematic analysis to find out a broad spectrum of women studies. We used Structural Topic Modelling and Latent Dirichlet Allocation (LDA) model to discover key themes in previous research.

Analytical categories

Categories researchers gender diversity and find out Indian region where women's issues become prominent in society. Year-wise growth in subject areas.





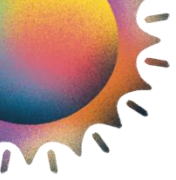
Text clustering and Topic Modelling



- ❑ Technique to separate objects into different classes.
- ❑ Levels of **granularity by cluster objects** such as documents, paragraphs, and sentences
- ❑ **Clustering** is an **unsupervised learning** method, while **classification** uses **supervised learning**.
- ❑ We used **STM and LDA** (Bayesian Model) to understand dense clusters allowing for interpretable topics and important words in the topic descriptions

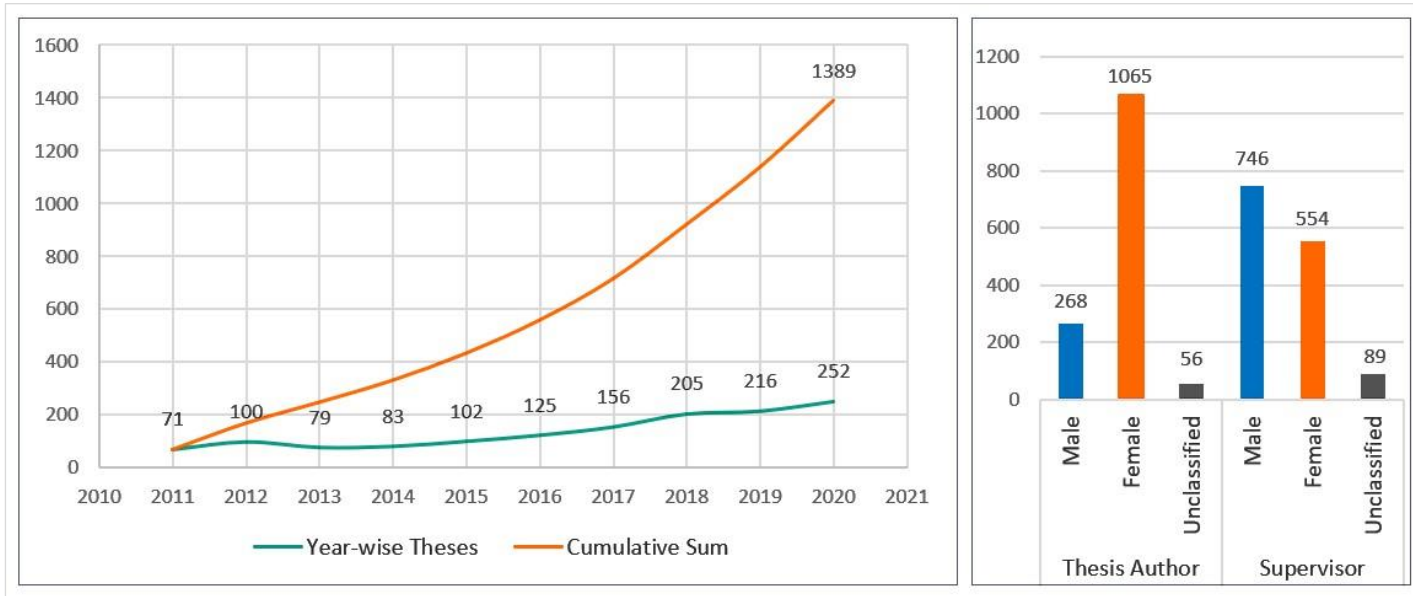


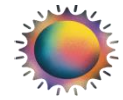
- ❖ **Topic modelling** is a statistical method used to extract meaningful themes from a collection of text documents; it identifies latent topics by analyzing and identifying word co-occurrence patterns
- ❖ STM and LDA models to analyse **PhD theses** abstract and recommendation for textual analysis
- ❖ LDA to model (k) topics across a corpus using algorithms to infer the structure of text and output **two critical matrices**, per document **topic proportion (θ)** and **topic-word distribution (β)**.
- ❖ STM model provides us with a deeper understanding of the hierarchical structural of text



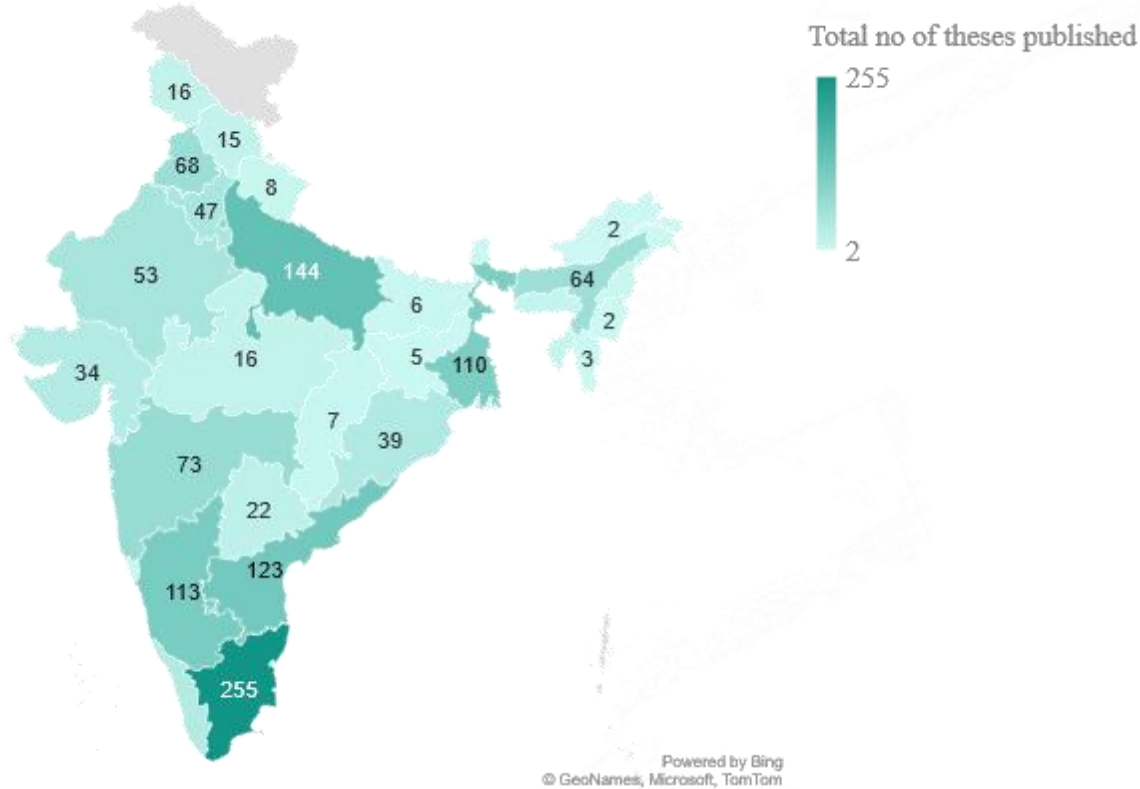
Results

Gender Diversity and year-wise Growth





Universities published theses during 2011-2020

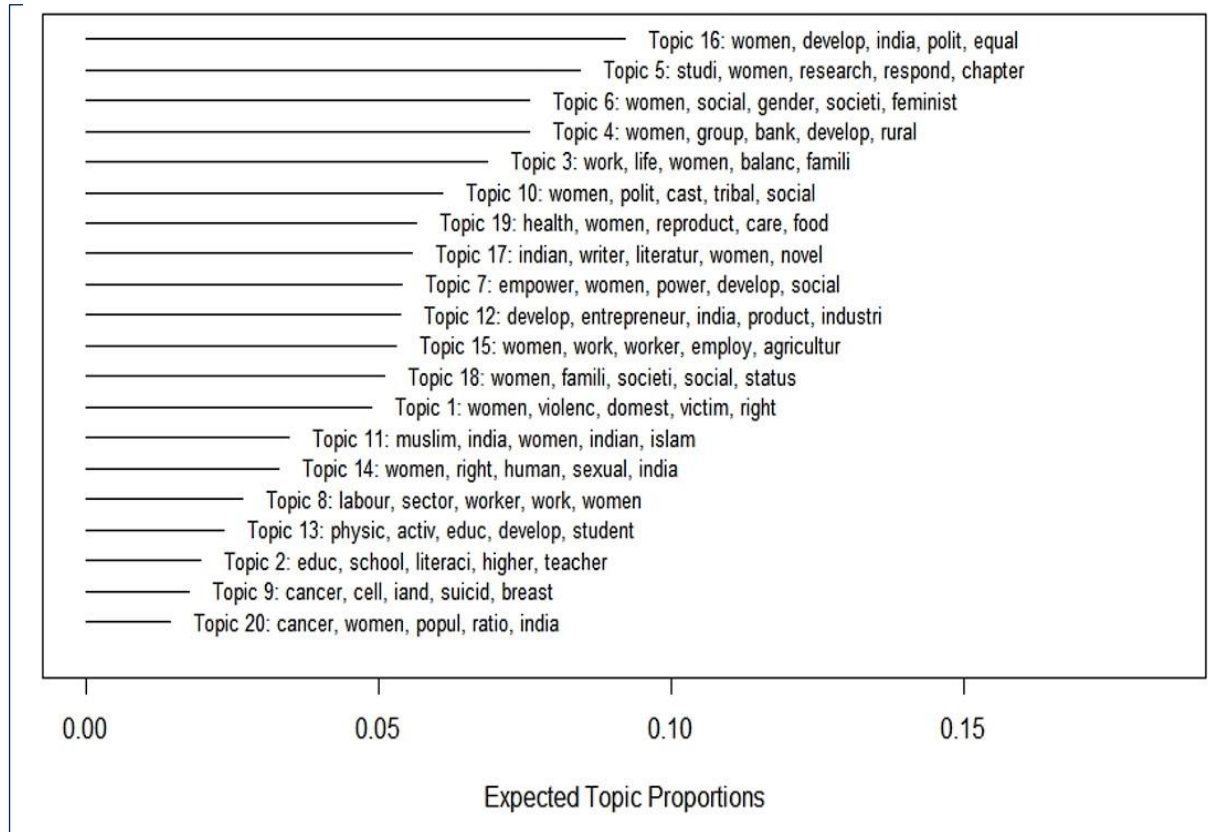


Types of University	No of Theses Published
State University	902
Central University	265
Deemed University	143
Private University	79
Total	1389



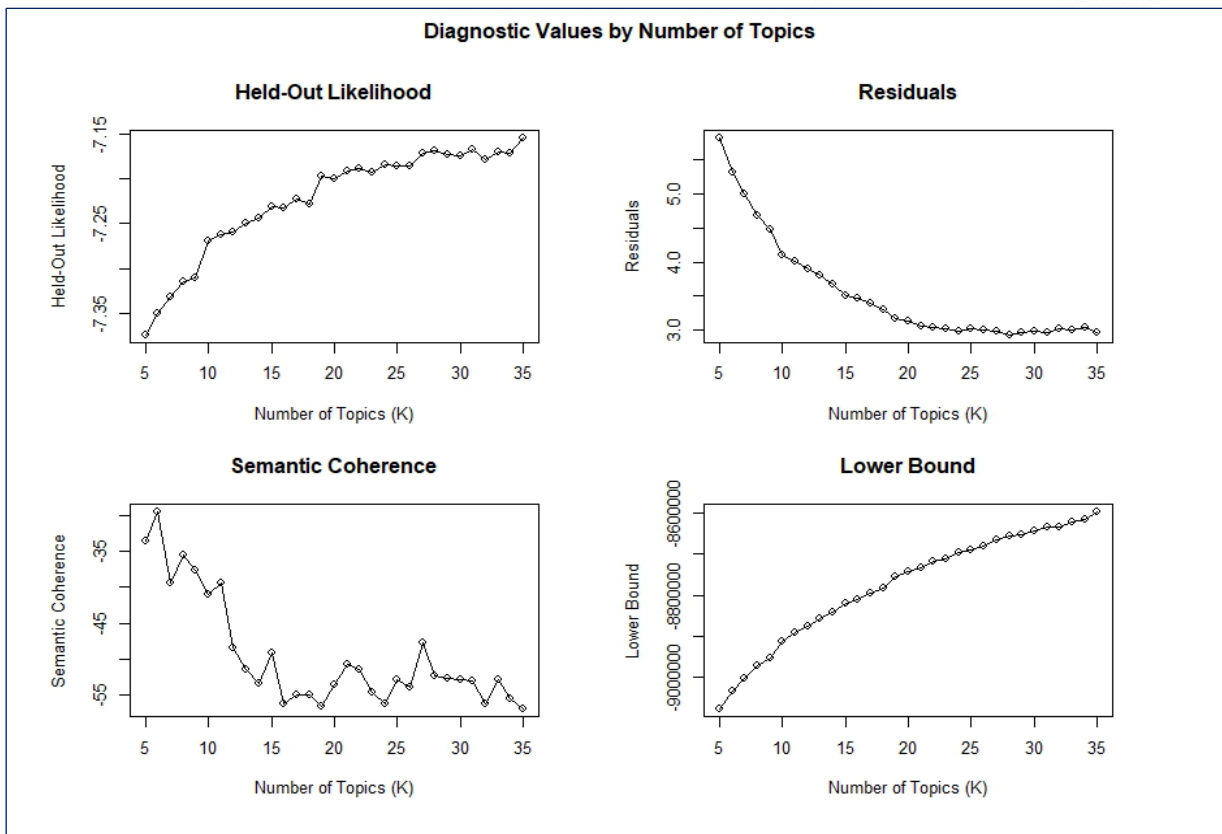


Topics prevalence through STM and LDA model





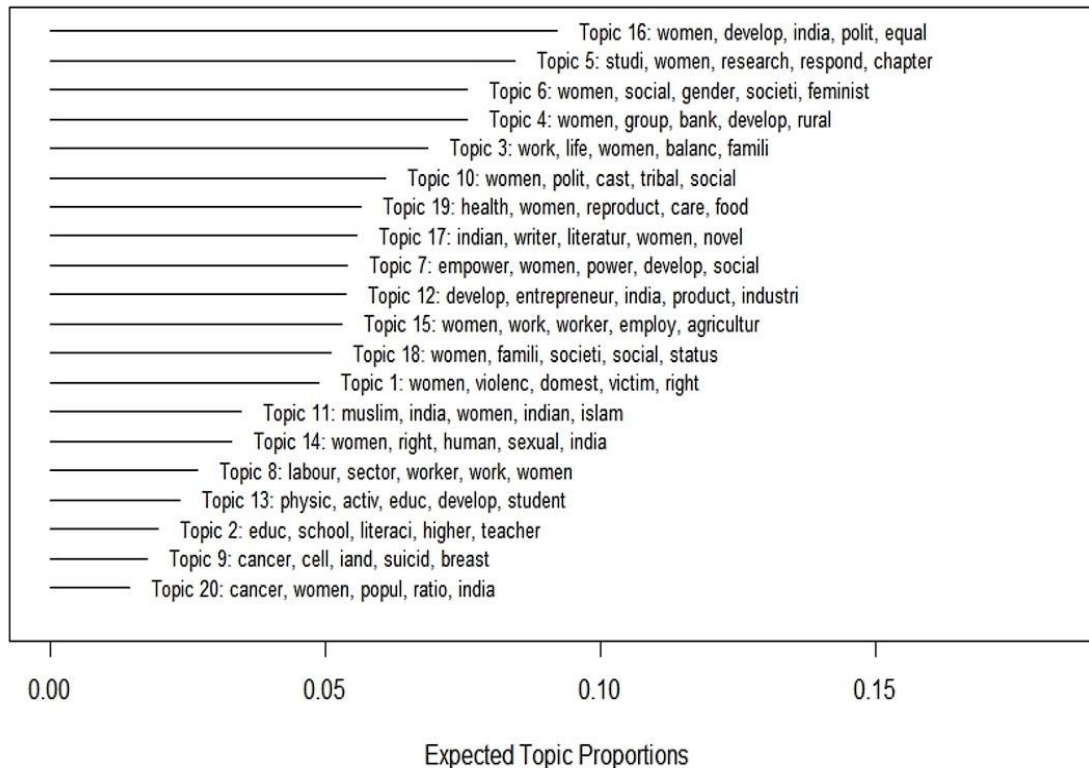
Topics prevalence through STM and LDA model



- ◆ Indicate the range of 10 to 25 topics, High performance
- ◆ Maximize number of topics at $k = 20$.

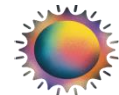


Topics prevalence through STM model

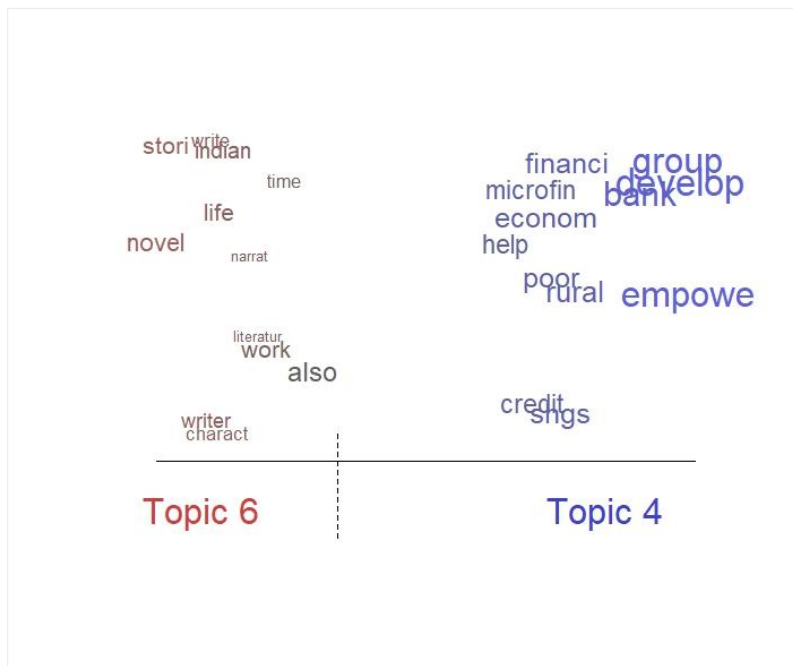


Topic 16: women, develop, india, polit, equal, societ, particip, econom, social, educ, status, right, role, countri, gender, nation, posit, empower, activ, indian
Topic 3: work, life, women, balanc, famili, person, studi, employe, stress, manag, servic, organ, time, inform, role, career, factor, differ, individu, need
Topic 4: women, group, bank, develop, rural, financi, shgs, poor, credit, microfin, empower, econom, poverti, help, programm, india, member, micro, loan, self
Topic 5: studi, women, research, respond, chapter, data, district, sampl, present, collect, select, area, signific, also, analysi, econom, work, status, find, communiti
Topic 6: women, social, gender, societ, feminist, ident, studi, woman, also, women', cultur, indian, femin, role, work, femal, film, sexual, differ, chapter

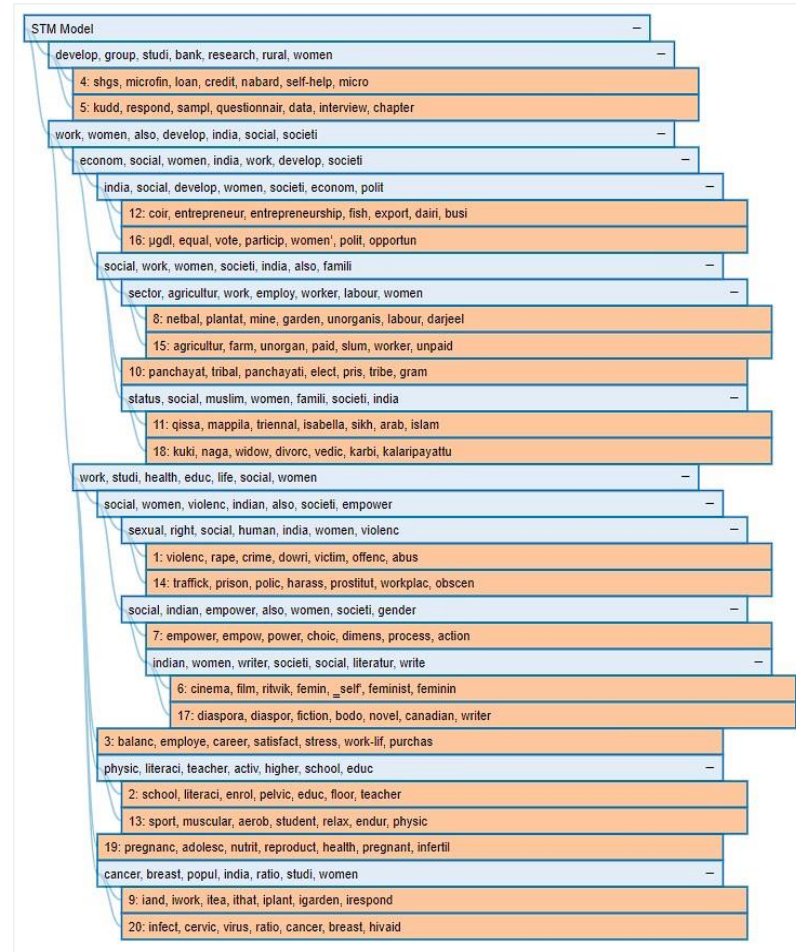
Top twenty FREX words associated with the first four topics



Topics prevalence through STM



Comparative graph between topic 6 and topic 4

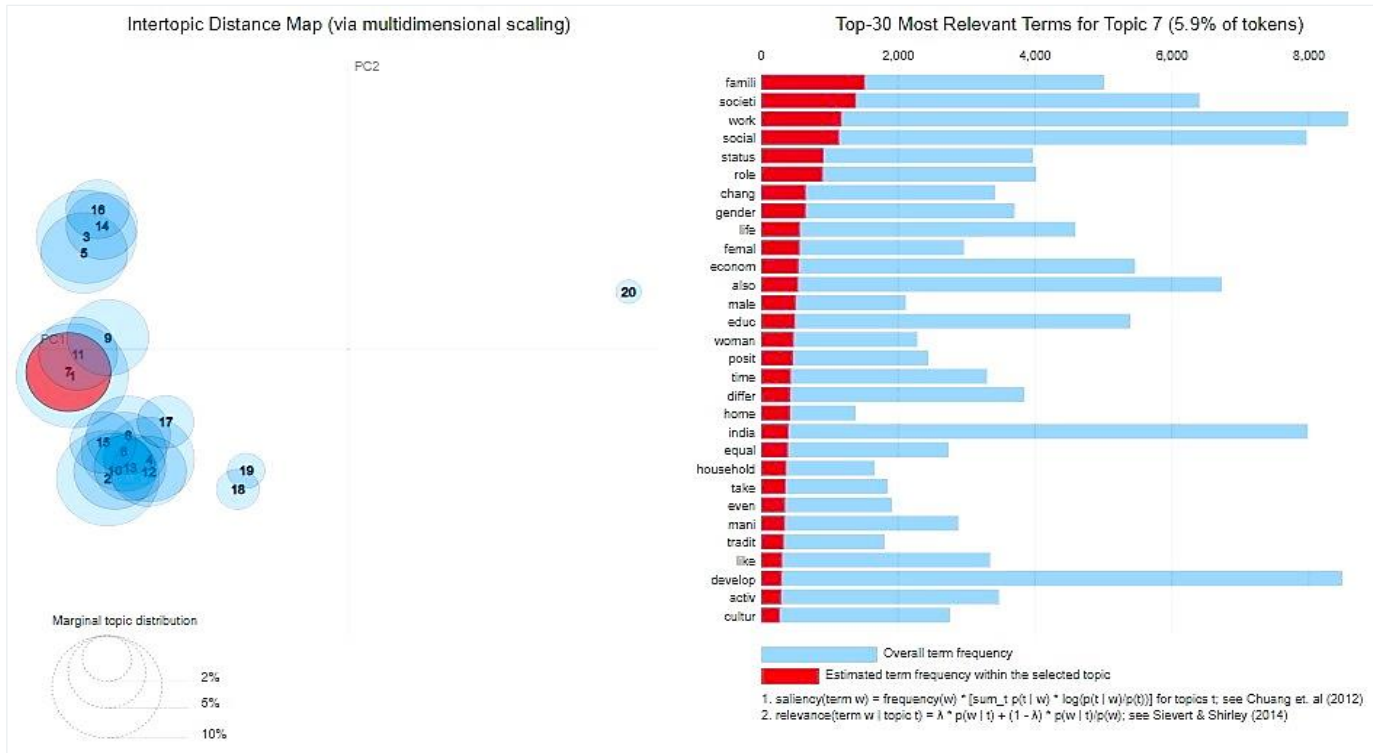


Hierarchical display of structural topic model (STM)



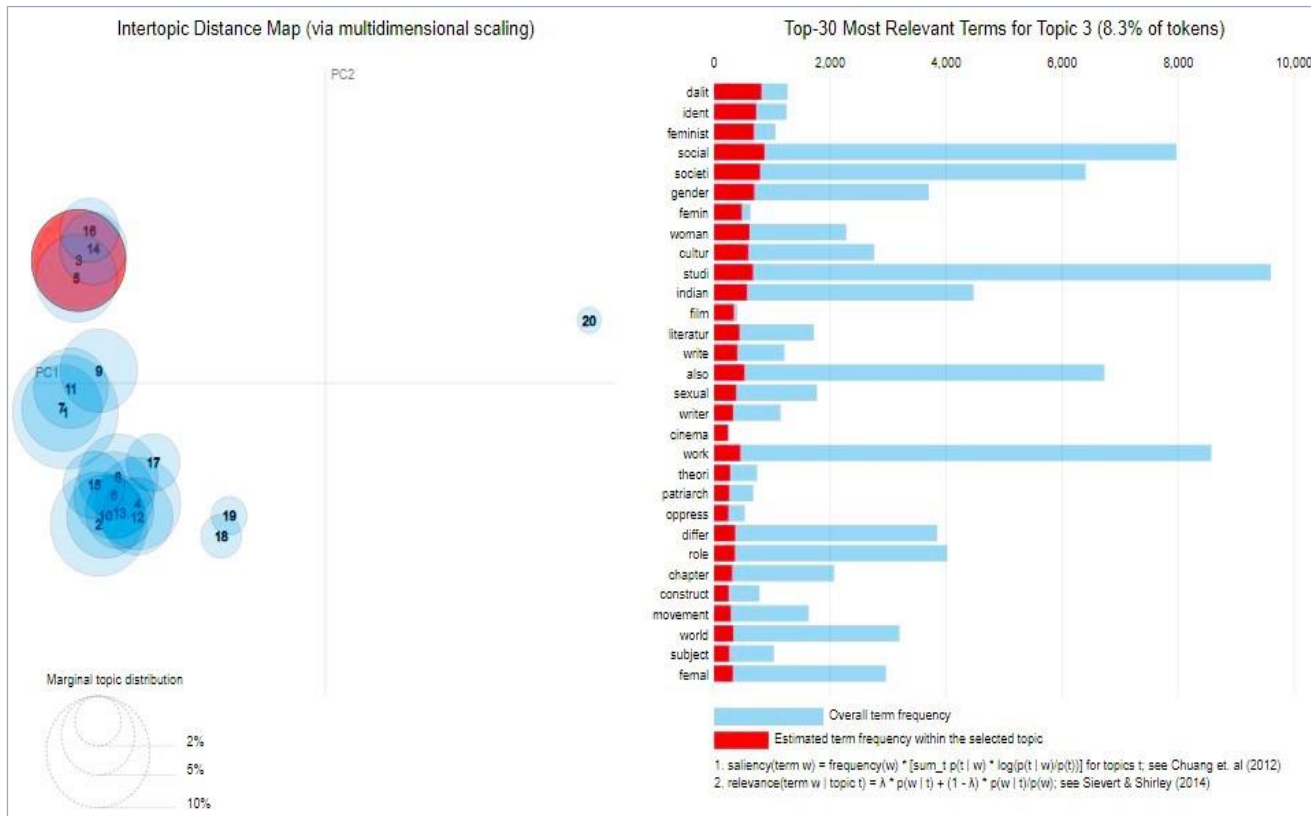


Topics prevalence through LDA

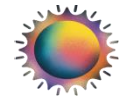


Topic visualization select topic 7 via LDAvis

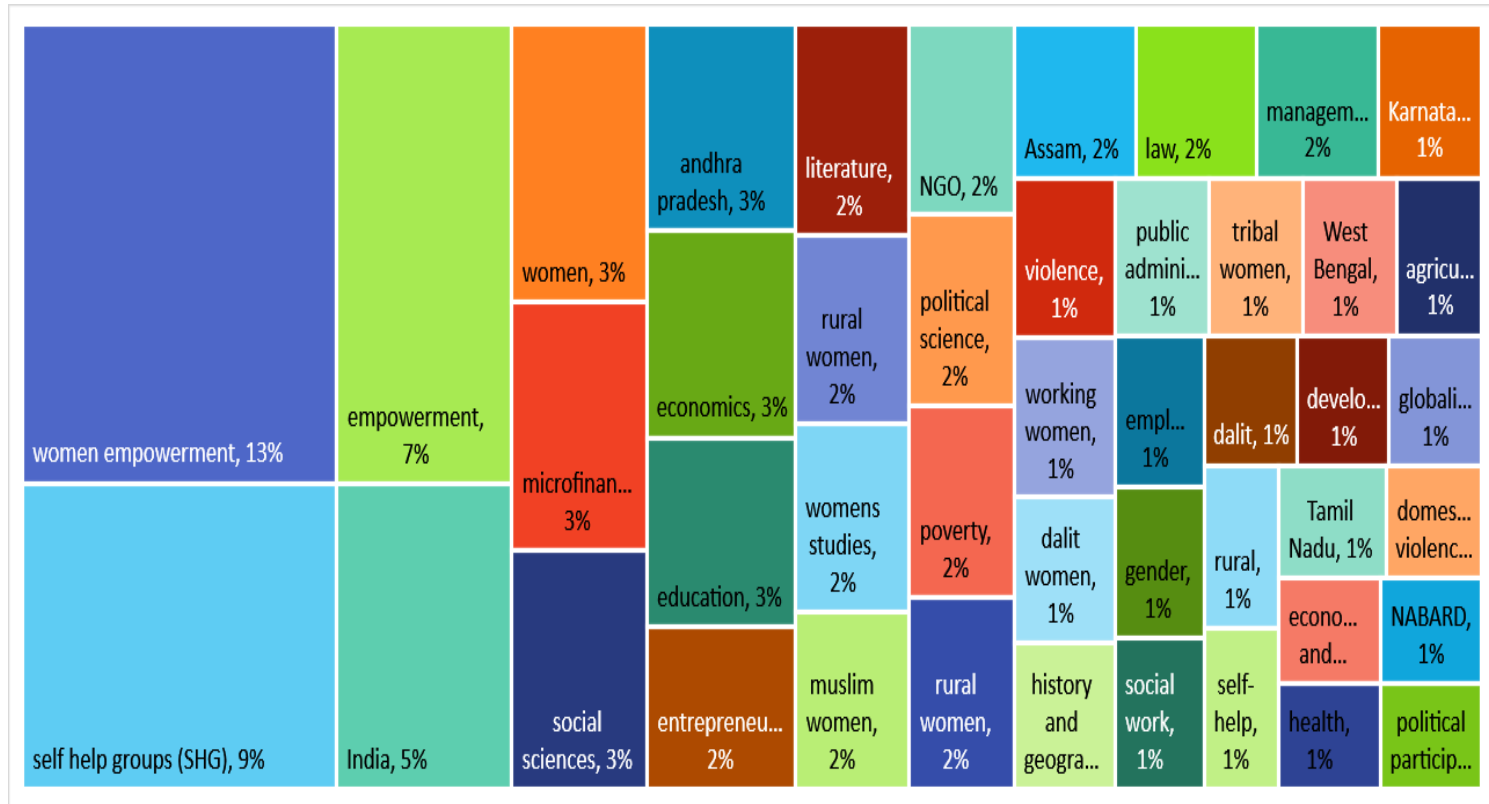




Topic visualization of topic 3



Keyword Analysis





Conclusion

- ❑ Researchers emphasise women's empowerment, the Sustainable Development Goals (SDGs), Millennium Development Goals (MDGs), societal status, economic challenges, girl child education (Beti Bachao Beti Padhao), and women's reproductive health.
- ❑ Urban areas present different challenges, including inadequate access to clean drinking water and sanitation, the plight of slum dwellers, disparities across income groups, and the juggling act faced by working women to balance their responsibilities.
- ❑ Despite higher rates of women's employment, gender inequality persists in leadership roles.
- ❑ Enhanced dialogues among civil societies and government authorities regarding the mentioned socio-economic issues would be immensely beneficial. In sum, women's studies research in India strives to foster a more equitable, just, and inclusive society, promoting well-being and progress for all individuals.

Team Presentation



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