

WOMEN'S WORKFORCE PARTICIPATION AND ECONOMIC GROWTH IN KARNATAKA: CHALLENGES AND POLICY IMPLICATIONS

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ABSTRACT

Women's participation in the workforce is widely recognized as a key determinant of sustainable and inclusive economic development. As one of India's fastest-growing states, Karnataka has experienced remarkable progress in industrialization, information technology, manufacturing, education, and entrepreneurship. However, despite these achievements, women's labour force participation remains below its full potential due to structural, social, and institutional barriers. This study examines the trends in women's workforce participation in Karnataka and analyses its contribution to the state's economic growth. The study also identifies the major challenges that restrict women's participation in productive employment and evaluates the effectiveness of government initiatives aimed at promoting gender-inclusive labour markets. The research is based on secondary data collected from the Periodic Labour Force Survey (PLFS), Karnataka Economic Survey,

Keywords: Women's Workforce, Entrepreneurship, PLFS, MSMEs, MOSPI, Policy Implications, etc

1. INTRODUCTION

Women's participation in the workforce is a critical indicator of economic development, social progress, and gender equality. Economists and development scholars increasingly recognize that higher female labour force participation contributes to increased productivity, household income, poverty reduction, human capital formation, and overall economic growth. Countries and regions that effectively utilize the productive potential of women tend to experience more inclusive and sustainable development.

India has witnessed significant improvements in women's education, health, and political participation over the past few decades. However, female labour force participation has not increased proportionately, creating a paradox where educational attainment has improved while workforce participation remains relatively low. This issue is particularly important for rapidly growing states such as Karnataka, which has emerged as a major centre for information technology, biotechnology, manufacturing, education, healthcare, and entrepreneurship.

Karnataka occupies a unique position in the Indian economy. The state contributes significantly to national Gross Domestic Product (GDP) and hosts major urban centres such as Bengaluru, Mysuru, Mangaluru, Hubballi-Dharwad, and Belagavi. Women in Karnataka participate in diverse economic activities including agriculture, self-employment, micro and small enterprises, education, healthcare, retail trade, information technology, and professional services. The expansion of the service sector, digital economy, and start-up ecosystem has created new employment opportunities for women, particularly in urban areas.

Despite these positive developments, several challenges continue to restrict women's workforce participation. These include unpaid domestic responsibilities, lack of affordable childcare facilities, gender wage gaps, occupational segregation, safety concerns, limited access to quality jobs, and social norms that influence women's employment decisions. Rural

women often remain concentrated in low-paid agricultural and informal work, while urban women face barriers related to career continuity, workplace flexibility, and work-life balance.

In this context, examining the relationship between women's workforce participation and economic growth in Karnataka becomes highly relevant. Understanding recent trends, sector-wise employment patterns, and the factors influencing women's employment can help policymakers design more effective interventions for inclusive economic development.

2. STATEMENT OF THE PROBLEM

Karnataka has achieved substantial economic growth during the last two decades, driven by rapid expansion in information technology, services, manufacturing, and urban development. However, the benefits of this growth have not been equally reflected in women's workforce participation. A significant proportion of women remains outside the formal labour market or are engaged in informal, low-paying, and insecure employment.

The persistence of gender disparities in employment raises important policy questions. If women are unable to fully participate in productive economic activities, the state may not be utilizing its human resources efficiently. Lower female labour force participation can also limit household income, reduce economic resilience, and constrain long-term growth potential.

Therefore, the central problem of this study is to examine whether economic growth in Karnataka has translated into greater workforce participation for women and to identify the major challenges that continue to hinder their economic participation.

3. OBJECTIVES OF THE STUDY

The study is guided by the following objectives:

- To examine the trends in women's workforce participation in Karnataka.
- To analyse the relationship between women's workforce participation and economic growth in Karnataka.
- To identify the socio-economic factors influencing women's employment.
- To examine sector-wise participation of women in agriculture, manufacturing, services, and information technology.
- To evaluate government initiatives aimed at improving women's employment opportunities.
- To suggest policy measures for enhancing women's workforce participation and promoting inclusive economic growth.

4. REVIEW OF LITERATURE

The review of literature provides a comprehensive understanding of previous research on women's workforce participation, labour market dynamics, and economic growth. It helps identify the current state of knowledge and highlights areas requiring further investigation.

4.1 Goldin (1995)

Goldin's work on women's labour force participation demonstrated that economic development is associated with long-term changes in women's employment patterns. She observed that female labour force participation generally follows a **U-shaped relationship** with economic development, influenced by structural transformation, education, and social norms.

Research Gap Identified: The study was global in scope and did not specifically address regional variations within India.

4.2 Klasen and Pieters (2015)

Klasen and Pieters analysed female labour force participation in India and found that increasing educational attainment alone does not necessarily translate into higher employment. Cultural norms, labour market conditions, and availability of suitable jobs significantly influence women's employment decisions.

Key Finding: Economic growth must be accompanied by employment generation suitable for educated women.

4.3 Lahoti and Swaminathan (2016)

Lahoti and Swaminathan examined long-term trends in female labour force participation in India. Their study found that despite sustained economic growth, female labour force participation experienced a decline during certain periods due to structural economic changes, increased educational enrolment, and social factors.

Key Finding: Economic growth alone is insufficient to increase women's labour force participation.

4.4 International Labour Organization (ILO) (2018)

The ILO emphasized that gender equality in employment contributes significantly to national productivity, innovation, and sustainable economic development. The report highlighted the importance of equal pay, safe workplaces, social protection, and skill development.

Key Finding: Closing gender employment gaps enhances economic efficiency and inclusive growth.

4.5 World Bank (2020)

The World Bank reported that increasing women's economic participation leads to higher household income, reduced poverty, and stronger economic resilience. The report emphasized investment in education, childcare, and financial inclusion as essential policy interventions.

4.6 Periodic Labour Force Survey (PLFS)

The PLFS provides comprehensive statistics on labour force participation, worker population ratio, employment status, and unemployment. Recent survey findings indicate gradual improvement in female labour force participation in several Indian states, including Karnataka, although substantial rural-urban disparities remain.

4.7 Government of Karnataka Economic Survey

The Karnataka Economic Survey highlights the increasing contribution of women in the service sector, information technology, healthcare, education, and self-help groups. However, women continue to face challenges related to informal employment, wage inequality, and limited representation in leadership positions.

4.8 NITI Aayog Reports

NITI Aayog has emphasized the importance of women's entrepreneurship, digital literacy, financial inclusion, and skill development for achieving inclusive economic growth. The reports recommend greater investment in women-led enterprises and employment-oriented skill programmes.

4.9 Ministry of Statistics and Programme Implementation (MOSPI)

MOSPI publications reveal that labour force participation among women has improved in recent years, especially in rural areas, but remains lower than men's participation. The reports identify education, family responsibilities, safety, and labour market conditions as major determinants of women's employment.

4.10 Recent Karnataka-Based Studies

Recent studies focusing on Karnataka indicate that women are increasingly participating in sectors such as:

- Information Technology
- Biotechnology
- Healthcare
- Education
- Banking and Financial Services
- Retail
- Micro, Small and Medium Enterprises (MSMEs)
- Self-Help Groups (SHGs)

However, these studies also report persistent challenges including occupational segregation, wage inequality, unpaid care work, career interruptions after marriage and childbirth, and limited representation in senior managerial positions.

Summary of Literature

The reviewed studies collectively suggest that:

- Women's workforce participation is closely associated with economic development.
- Education improves employability but does not automatically ensure employment.
- Social norms and family responsibilities continue to influence women's employment decisions.
- Structural transformation towards services creates new opportunities for women.
- Government interventions play a significant role in enhancing female labour force participation.
- There is a need for state-specific studies examining the relationship between women's employment and economic growth.

5. RESEARCH GAP

Although substantial research has been conducted on women's labour force participation in India, several gaps remain.

Most previous studies have focused on national-level trends without providing detailed analysis of Karnataka. Existing research often examines female employment independently without explicitly analysing its relationship with state-level economic growth. Furthermore, limited attention has been given to recent structural changes in Karnataka's economy, including the expansion of the information technology sector, digital economy, start up ecosystem, and women-led entrepreneurship.

Many earlier studies also rely on older datasets and do not incorporate recent evidence from the **Periodic Labour Force Survey (PLFS)** and the **Karnataka Economic Survey**. District-level disparities, rural-urban differences, and sector-specific employment patterns require further investigation. In addition, there is limited research evaluating the effectiveness of recent government initiatives aimed at improving women's workforce participation in Karnataka.

The present study seeks to address these gaps by providing an updated analysis of women's workforce participation, examining its contribution to economic growth, analysing sector-wise employment trends, identifying key challenges, and proposing policy recommendations for achieving inclusive and sustainable development in Karnataka.

6. RESEARCH METHODOLOGY

Research methodology provides the systematic framework used to investigate the relationship between women's workforce participation and economic growth in Karnataka. It outlines the research design, data sources, analytical techniques, variables, and scope of the study to ensure that the findings are scientifically valid, reliable, and relevant.

6.1 Research Design

The present study adopts a **descriptive and analytical research design**.

The descriptive component examines the trends, patterns, and characteristics of women's workforce participation in Karnataka. The analytical component evaluates the relationship between women's labour force participation and the state's economic growth using secondary data and statistical techniques.

The study aims to identify key determinants of women's employment, assess sector-wise participation, and examine the effectiveness of government policies in promoting gender-inclusive economic development.

6.2 Study Area

The geographical scope of the study is **Karnataka**, one of India's leading states in terms of industrialization, information technology, manufacturing, agriculture, education, and service-sector development.

The study considers both **rural and urban Karnataka** and, where data permit, discusses district-level variations in women's workforce participation.

6.3 Study Period

The study covers the period **2014–15 to 2024–25** (or the latest year for which comparable data are available).

This period captures:

- Changes in labour market conditions
- Structural transformation of Karnataka's economy
- Expansion of the IT and digital sectors
- Growth of women-led entrepreneurship
- Policy initiatives promoting women's employment

6.4 Sources of Data

The study is based entirely on **secondary data** collected from reliable government publications, national statistical agencies, and peer-reviewed academic literature.

7. DATA ANALYSIS AND INTERPRETATION

7.1. Overview of Women's Workforce Participation in Karnataka

Women's workforce participation is an important indicator of labour market inclusion and economic development. Karnataka has experienced rapid structural transformation over the past decade, driven by growth in information technology, biotechnology, manufacturing, financial services, and urbanization. These changes have created new employment opportunities for women, particularly in urban and service-sector occupations.

At the same time, women continue to play a vital role in agriculture, livestock, micro-enterprises, self-help groups, handicrafts, education, and healthcare. Despite these contributions, women's participation remains constrained by unpaid care work, occupational segregation, wage disparities, safety concerns, and unequal access to quality employment.

Recent labour statistics indicate that female labour force participation has improved in India in recent years, although a substantial share of women's employment remains concentrated in self-employment and informal work.

7.2 Trends in Female Labour Force Participation

The female labour force participation rate (FLFPR) measures the proportion of women aged 15 years and above who are either employed or actively seeking employment.

Table 1
Trend in Female Labour Force Participation

Year	Female Labour Force Participation Rate (%)
2019-20	30.0
2020-21	37.5
2021-22	32.8
2022-23	37.0
2023-24	41.7

Source: Compiled from PLFS Annual Reports.

Interpretation

The PLFS indicates a gradual increase in female labour force participation in recent years. This improvement is associated with rising educational attainment, expansion of self-employment, growth of rural economic activities, increased participation in service-sector jobs, and government initiatives supporting women's employment. However, researchers caution that much of the increase is attributable to self-employment and informal work rather than formal salaried employment.

7.3 Sector-wise Distribution of Women's Employment in Karnataka

Table 2
Major Employment Sectors for Women

Sector	Nature of Women's Participation
Agriculture	Crop cultivation, dairy, horticulture, sericulture
Manufacturing	Garments, food processing, textiles

Information Technology	Software development, IT services
Education	Teaching, administration
Healthcare	Nursing, medical services, allied health
Banking & Finance	Banking, insurance, finance
Retail & Hospitality	Sales, tourism, hospitality
MSMEs	Entrepreneurship and self-employment

Interpretation

Agriculture continues to employ a significant proportion of rural women, whereas urban women increasingly participate in IT, education, healthcare, finance, and retail. Karnataka's position as India's leading IT hub has expanded opportunities for skilled women, particularly in Bengaluru and other urban centres.

7.4 Women's Contribution to Karnataka's Economic Growth

Women's participation contributes to economic growth through:

- Increased labour productivity
- Higher household income
- Greater consumer demand
- Enhanced human capital
- Entrepreneurship and innovation
- Expansion of the tax base
- Poverty reduction
- Improved educational and health outcomes

The state's continued economic expansion has been supported by broad-based growth across agriculture, manufacturing, and services, with per-capita income also rising.

7.5 Rural–Urban Differences

Table 3
Characteristics of Women's Employment

Indicator	Rural Karnataka	Urban Karnataka
Agriculture	High (58%)	Low (11%)
Manufacturing	Moderate (15%)	Moderate(58%)
Services	Moderate	High
Self-employment	High	Moderate
IT Sector	Very Low	Very High
Informal Employment	High	Moderate

Interpretation

Rural women are primarily engaged in agriculture, livestock, and self-employment, while urban women are more likely to work in education, healthcare, IT, finance, and professional services. Urban employment generally offers higher wages and better working conditions, though barriers such as childcare responsibilities and work-life balance remain significant.

8. MAJOR CHALLENGES AFFECTING WOMEN'S WORKFORCE PARTICIPATION

The study identifies several key challenges:

1. Gender Wage Gap

Women often earn lower wages than men performing comparable work.

2. Unpaid Care Work

Household responsibilities reduce women's available time for paid employment.

3. Occupational Segregation

Women remain concentrated in lower-paying sectors and are underrepresented in technical and leadership roles.

4. Workplace Safety

Concerns regarding safety and harassment discourage labour market participation.

5. Limited Childcare Facilities

Insufficient childcare support affects women's labour-force continuity after childbirth.

6. Skill Mismatch

Rapid technological change requires continual up skilling, creating barriers for some women.

7. Informal Employment

Many women work without formal contracts, social security, or employment benefits.

9. Government Initiatives

Karnataka and the Government of India have introduced several programmes to improve women's economic participation, including:

- Skill development and vocational training
- Promotion of women-led Self-Help Groups (SHGs)
- Support for women entrepreneurs through MSME schemes
- Digital literacy initiatives
- Start up promotion
- Financial inclusion programmes
- Maternity benefits and workplace protections
- Transport and mobility initiatives

These interventions seek to increase employability, strengthen financial independence, and encourage entrepreneurship among women.

10. FINDINGS OF THE STUDY

Based on the analysis of secondary data and the review of relevant literature, the following findings have been drawn:

1. Women's workforce participation in Karnataka has shown gradual improvement over the past decade, particularly in the service sector.

2. Karnataka is one of India's leading states in providing employment opportunities for women in Information Technology (IT), biotechnology, education, healthcare, banking, and other service industries.
3. Agriculture continues to be the primary source of employment for rural women, although many are engaged in informal and low-paid work.
4. The service sector has emerged as the largest employer of educated women, especially in Bengaluru, Mysuru, Mangaluru, and Hubballi-Dharwad.
5. Educational attainment has significantly enhanced women's employability, but higher education alone does not always translate into formal employment because of social and labour market barriers.
6. Women continue to face challenges such as unpaid household responsibilities, gender wage disparities, occupational segregation, workplace safety concerns, and inadequate childcare facilities.
7. Self-employment and women-led entrepreneurship have increased through Self-Help Groups (SHGs), microfinance, and government support programmes.
8. Government initiatives relating to skill development, entrepreneurship, financial inclusion, and digital literacy have contributed positively to women's economic participation.
9. Rural women have lower access to formal employment than urban women and are more dependent on agriculture and informal occupations.
10. Increasing women's participation in the workforce contributes to higher household income, poverty reduction, improved living standards, and sustainable economic growth in Karnataka.

11. SUGGESTIONS

Based on the findings, the following suggestions are proposed:

1. Strengthen Skill Development Programmes

The Government should expand vocational training and digital skill development programmes to improve women's employability.

2. Promote Women Entrepreneurship

Financial institutions should provide easier access to credit, subsidies, and entrepreneurship development programmes for women entrepreneurs.

3. Improve Childcare Facilities

Establish affordable childcare centres near workplaces to enable women to balance employment and family responsibilities.

4. Ensure Equal Pay

Strict implementation of equal remuneration policies should be ensured to reduce gender-based wage disparities.

5. Enhance Workplace Safety

Employers should strengthen workplace safety measures, grievance redressal mechanisms, and awareness programmes against harassment.

6. Increase Employment Opportunities in Rural Areas

Promote agro-based industries, food processing, handicrafts, and rural enterprises to create sustainable employment for rural women.

7. Encourage Flexible Work Arrangements

Flexible working hours, hybrid work, and work-from-home opportunities can increase women's participation, particularly in service-sector occupations.

8. Improve Financial Inclusion

Expand access to banking, digital payments, insurance, and financial literacy programmes for women.

9. Strengthen Education and Career Guidance

Career counselling and employment-oriented education should be strengthened, particularly in higher education institutions.

10. Promote Gender Equality

Government, educational institutions, employers, and civil society should work together to eliminate gender discrimination and encourage equal participation in economic activities.

12. CONCLUSION

Women's workforce participation is one of the most important drivers of inclusive economic growth and sustainable development. Karnataka has made considerable progress in creating employment opportunities for women, particularly in the information technology, education, healthcare, banking, and service sectors. The increasing educational attainment of women and the expansion of entrepreneurship have further strengthened their contribution to the state's economy.

However, several challenges continue to limit women's full participation in the labour market. Gender wage gaps, occupational segregation, unpaid domestic work, inadequate childcare facilities, and safety concerns remain significant barriers. Addressing these challenges requires coordinated efforts from the government, private sector, educational institutions, and civil society.

Policies that focus on skill development, entrepreneurship, equal employment opportunities, workplace safety, and financial inclusion can significantly improve women's workforce participation. Greater participation of women in productive employment will not only enhance household incomes and reduce poverty but also contribute to higher productivity, innovation, and long-term economic growth in Karnataka.

In conclusion, empowering women economically is not merely a matter of social justice but a strategic necessity for achieving inclusive and sustainable development. Strengthening women's role in the workforce will enable Karnataka to better utilize its human capital and reinforce its position as one of India's leading economic growth engines.

13. POLICY IMPLICATIONS

The findings of the study have several policy implications for promoting women's workforce participation and accelerating economic growth in Karnataka.

13.1 Strengthening Skill Development

The Government of Karnataka should expand skill development programmes in collaboration with industries to improve women's employability in emerging sectors such as information

technology, artificial intelligence, biotechnology, financial services, renewable energy, and digital marketing.

13.2 Promoting Women Entrepreneurship

Women's entrepreneurship should be encouraged through easier access to institutional credit, business incubation centres, financial literacy programmes, and marketing support. Self-Help Groups (SHGs) should be strengthened to enhance income-generating opportunities in rural and semi-urban areas.

13.3 Enhancing Workplace Safety

A safe and inclusive working environment is essential for increasing women's participation. Both public and private sector organizations should strictly implement workplace safety regulations, grievance redressal mechanisms, and awareness programmes.

13.4 Expanding Childcare Support

Affordable childcare facilities, crèches, and family-friendly workplace policies should be expanded to enable women to continue employment after marriage and childbirth.

13.5 Reducing Gender Wage Disparities

Effective implementation of equal remuneration policies and regular monitoring of wage practices are necessary to reduce gender-based wage discrimination and promote equitable employment opportunities.

13.6 Improving Rural Employment Opportunities

Rural women's employment can be enhanced by promoting agro-processing industries, dairy farming, sericulture, food processing, handicrafts, and other value-added agricultural activities.

13.7 Strengthening Digital Inclusion

Providing digital literacy, internet access, and technology-based training can improve women's participation in the digital economy and remote employment opportunities.

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