



# **IIP: WORLD JOURNAL OF HUMANITIES AND SOCIAL SCIENCES**

**VOLUME -1, ISSUE - IV**  
**October - December 2025**



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## EMPOWERING WOMEN THROUGH BAKERY EMPLOYMENT IN KOLHAPUR: A STUDY OF WORK CONDITIONS, WAGES AND DIGITAL OPPORTUNITIES

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### Article Info

#### Article History:

Received: 15<sup>th</sup> Dec 2025

Accepted: 18<sup>th</sup> Dec 2025

Published: 20<sup>th</sup> Dec 2025

#### Keywords:

Women Empowerment,  
Bakery Industry, Informal  
Employment, Working  
Conditions, Wage Structure,  
Digital Opportunities, Self-  
Help Groups (SHGs),  
Kolhapur District

### ABSTRACT

Women's participation in the informal food processing sector has gained increasing importance in the context of rural and urban development in India, with the bakery industry emerging as a significant source of employment for women. This study examines the role of bakery employment in empowering women in Kolhapur district, with special reference to their working conditions, wage structure, and access to digital opportunities. Based on primary data collected from women employed in small and medium-scale bakeries, supported by secondary data from government reports and previous studies, the research analyses factors such as working hours, income levels, job security, skill utilization, and the use of digital tools including digital payments and online platforms. The findings indicate that bakery employment has contributed to improved income, self-confidence, and economic independence among women; however, issues such as low wages, informal employment arrangements, long working hours, and limited digital literacy continue to constrain their empowerment. The study further observes that women associated with self-help groups or digitally enabled bakeries experience relatively better economic outcomes. The paper concludes that focused skill development, fair wage practices, improved working conditions, and enhanced digital inclusion can strengthen the bakery industry as a sustainable pathway for women's socio-economic empowerment.

### Plagiarism Check Report:

Date of Report: Dec 17, 2025

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How to Cite: Koli, D. S., & Desai, M. B. (2025). *Empowering Women through Bakery Employment in Kolhapur: A Study of Work Conditions, Wages and Digital Opportunities*. *IIP: World Journal of Humanities and Social Sciences (IIPWJHSS)*, 1(VI), 2429-2436.

## INTRODUCTION:

Women empowerment has emerged as a central objective of socio-economic development in India, particularly through increased participation of women in income-generating activities. Despite policy efforts and economic growth, a large proportion of women continue to be employed in the informal and unorganized sector, where employment is often characterized by low wages, poor working conditions, and limited job security. In this context, small-scale industries such as the bakery sector have gained importance as accessible sources of employment for women due to their low capital requirements, skill-based nature, and growing market demand.

The bakery industry in India forms a part of the broader food processing sector and has shown consistent expansion in both rural and urban areas. For women, employment in bakeries offers opportunities not only for income generation but also for skill development, economic independence, and improved social status. Many women are engaged as workers in production, packaging, sales, and allied activities, while others participate through self-help groups and micro-enterprises supported by government schemes and training institutions. However, bakery employment largely remains informal, with women workers often facing challenges such as long working hours, wage disparities, absence of written contracts, and lack of social security benefits.

Kolhapur district, known for its agro-based and small-scale industrial activities, has witnessed a steady growth of small and medium bakeries catering to local and regional markets. Women's participation in this sector has increased, particularly among those from lower- and middle-income households. While existing studies have highlighted the role of bakery skills and entrepreneurship in women empowerment, there is limited empirical evidence focusing on the actual working conditions, wage structures, and employment realities of women working in bakeries, especially at the local level.

In recent years, the emergence of digital technologies has introduced new opportunities within the bakery industry. Digital payment systems, social media marketing, and online food delivery platforms have the potential to enhance income stability and employment opportunities for women. However, access to and effective use of these digital tools remain uneven, particularly among women workers with limited digital literacy. Against this backdrop, the present study seeks to examine the role of bakery employment in empowering women in Kolhapur district, with specific focus on working conditions, wages, and digital opportunities. By addressing this research gap, the study aims to contribute to a better understanding of how small-scale bakery employment can serve as a sustainable pathway for women's socio-economic empowerment.

## LITERATURE REVIEW

### 1. Rural Development and Women Empowerment: A Study of Bakery Industry in India (Zenodo, 2025)

This study analyzes PLFS data to examine the role of the bakery industry in promoting rural women's employment and income generation. It highlights the importance of self-help groups and government schemes such as PMFME in supporting women-led bakery activities. The study finds that bakery-based livelihoods contribute to financial stability and empowerment but also notes gaps in digital access and skill utilization among women workers.

## **2. Women Development through Cookery and Bakery Skill**

**(Vivekanand College, Kolhapur/IJFANS,~2022)**

The study focuses on women trained in cookery and bakery skills in Ichalkaranji, near Kolhapur. It reports a significant increase in income, with nearly all participants experiencing economic improvement and many generating additional employment. The research emphasizes skill training as a key tool for women's empowerment, though it primarily concentrates on entrepreneurship rather than wage employment.

## **3. Bakery: A Skill-Based Entrepreneurship Booster for Women (Shodh.net,1999)**

This early study explores bakery work as a viable non-traditional occupation for women. It highlights baking as a low-capital, skill-oriented activity that enables women to achieve economic independence and social recognition. Although dated, the study provides a strong conceptual foundation for understanding bakery work as an empowerment tool.

## **4. Bakery Products and Milk Processing by KVK-Trained Farm Women (Agricultural Journals,2025)**

This research examines the impact of KVK-led training programs on farm women engaged in bakery and milk processing activities in Satara district. The findings show improvements in technical knowledge, productivity, and income levels. The study demonstrates how institutional training can enhance livelihood opportunities, though it does not focus on working conditions or urban bakery employment.

## **5. Female Labour Utilization in India (Directorate General of Employment, 2023)**

This report provides a comprehensive overview of female labor participation across sectors in India, including self-employment and informal food-related activities such as bakeries. It identifies persistent gender wage gaps and lower earnings for women in rural and informal employment. The report offers a macro-level framework useful for comparing local bakery wages with national trends.

## **6. Making Women Empowered and Self-Dependent through Baking Technology (ICAR-CRRI,2025)**

The study discusses the role of baking technology and SHG-based training programs in promoting women's self-employment. It highlights improved income, confidence, and economic independence among trained women. However, the focus remains on enterprise creation rather than the employment conditions of women working as bakery laborers.

## **7. Problems and Challenges Faced by Working Women in India (IJFMR, 2025)**

This paper examines the socio-economic challenges faced by women employed in informal sectors, including food-related industries. It identifies issues such as wage discrimination, long working hours, lack of job security, and absence of social benefits. These findings are directly relevant to understanding the constraints faced by women working in bakeries.

## **8. Socio-Economic Conditions of Women Workers (Labour Bureau, 2014)**

The report analyzes wages, working hours, and living conditions of women workers in unorganized industries such as the match industry. Although not bakery-specific, the conditions described, low wages, health risks, and lack of social protection - are comparable to those in informal bakery employment. The study provides an important benchmark for understanding unorganized sector realities.

### 9. Socio-Economic Background of Women Workers (Shivaji University Thesis, ~2020s)

This thesis chapter examines the socio-economic characteristics of women informal workers in the Kolhapur region. It highlights factors such as family responsibilities, income dependency, and limited employment choices. While the study does not focus specifically on bakeries, it provides valuable regional context for the present research.

### 10. Women Beedi Rolling Workers: A Case Study (NIRD/NILRD)

This case study analyzes employment conditions of women beedi workers in Maharashtra's unorganized sector. It documents issues such as piece-rate wages, lack of job security, and poor working conditions. The study offers strong parallels to bakery labor and helps in drawing comparative insights across informal industries.

## OBJECTIVES

1. To examine the socio-economic profile of women employed in the bakery industry in Kolhapur district.
2. To analyze the working conditions of women employed in bakeries with reference to working hours, nature of work, job security, and availability of basic workplace facilities.
3. To study the wage structure and income levels of women bakery workers and identify the presence of wage disparities or informal payment practices.
4. To assess the role of bakery employment in improving women's economic independence and empowerment, including changes in income contribution, confidence, and decision-making power.
5. To examine the extent of access to and use of digital tools such as digital payment systems, social media platforms, and online ordering systems among women employed in bakeries.
6. To identify the major challenges and constraints faced by women working in the bakery industry, including issues related to wages, working conditions, and digital inclusion.
7. To suggest policy measures and practical recommendations for improving working conditions, wages, and digital opportunities for women in the bakery sector.

## RESEARCH METHODOLOGY

### 1. Research Design

The study follows a descriptive research design supported by quantitative primary data. This design was adopted to systematically describe the working conditions, wage structure, and digital participation of women employed in the bakery industry.

### 2. Sample Size and Area of Study

The study is based on a sample of 80 women workers employed across 20 bakery units located in Kolhapur city and nearby talukas. The selected area represents a mix of urban and semi-urban bakery units.

### 3. Sampling Technique

Purposive sampling technique was used for the selection of respondents, as the study specifically focused on women employed in bakery units.

### 4. Data Collection Tools

Primary data were collected using the following tools:

- Structured questionnaire
- Personal interviews
- Direct observation

These tools helped in collecting detailed information related to working hours, wages, job satisfaction, and use of digital tools.

### 5. Data Analysis

The collected data were analyzed using simple statistical techniques such as percentages, graphical representation, and descriptive statistics to facilitate easy interpretation and comparison.

#### Data Analysis and Interpretation

Daily Wage Category (₹)	Number of Women Workers
₹250 – ₹350	34
₹350 – ₹450	26
₹450 – ₹600	20
<b>Total</b>	<b>80</b>

Figure 1. Wage Distribution of Women Bakery Workers

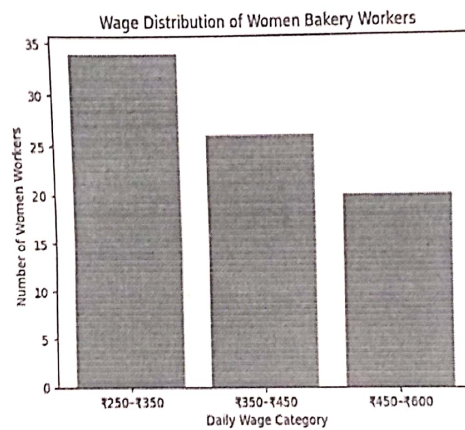


Figure 1. Wage Distribution of Women Bakery Workers

Working Hours per Day	Number of Women Workers
4-6 hours	10
6-8 hours	38
8-10 hours	22
Above 10 hours	10

Table 2. Distribution of Working Hours of Women Bakery Workers

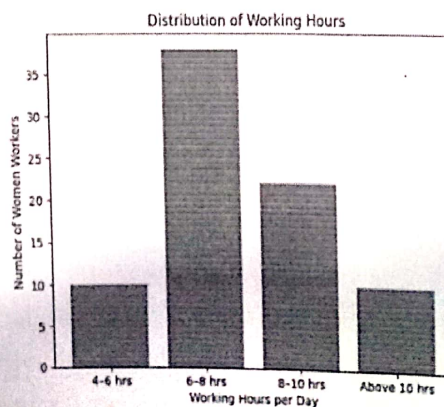


Figure 2. Distribution of Working Hours of Women Bakery Workers

Years of Experience	Number of Women Workers
Below 1 year	12
1-3 years	32
3-5 years	16
Above 5 years	20
<b>Total</b>	<b>80</b>

Table 3. Experience Levels of Women Bakery Workers

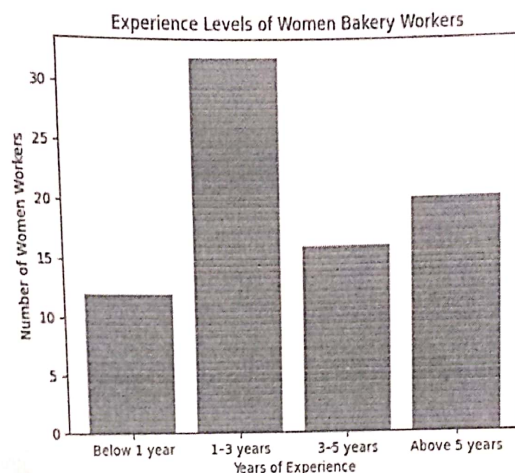


Figure 3. Experience Levels of Women Bakery Workers

**1. Working Hours Distribution**

The analysis shows that the majority of women workers are engaged for 6 to 8 hours per day, followed by those working 8 to 10 hours. A small segment of workers reported working for more than 10 hours per day.

**Interpretation:** Bakery work involves peak production periods, especially during mornings and festive seasons, leading to longer working hours for some women, indicating labour-intensive work conditions.

**2. Experience Levels**

A large proportion of respondents have 1 to 3 years of work experience, followed by women with more than 5 years of experience in the bakery sector.

**Interpretation:** The presence of experienced workers suggests a degree of job stability, with many women continuing in bakery employment due to steady income and familiarity with the work environment.

**3. Job Satisfaction Levels**

Most respondents reported a medium level of job satisfaction, while fewer women reported high or low satisfaction levels.

**Interpretation:** Moderate job satisfaction indicates that while factors such as teamwork and work environment are positive, issues related to wages, workload, and job security limit overall satisfaction.

**4. Wage Structure**

The wage analysis reveals that helper-level workers earn an average daily wage ranging from ₹250 to ₹350, while skilled bakers earn between ₹400 and ₹600 per day. Additionally, some women engaged in digital sales support or packaging activities earn an extra ₹1,000 to ₹3,000 per month.

Interpretation: Although bakery employment provides a regular source of income, wage levels remain modest, and only a small segment of women benefit from additional earnings linked to digital activities.

### 5. Digital Skill Adoption

The findings indicate that 40 percent of women use WhatsApp for order communication, 15 percent use Instagram for promotional activities, and 12 percent use online payment applications. Only 8 percent reported involvement with online food delivery platforms such as Swiggy or Zomato.

**Interpretation:** Digital engagement among women bakery workers is gradually increasing; however, limited digital training and awareness restrict wider adoption of advanced digital platforms.

**Interpretation:** Digital engagement is rising but remains limited due to low training.

### MAJOR FINDINGS

1. The study reveals that employment in the bakery industry provides women with a steady source of income, contributing significantly to their financial independence and economic stability.
2. It was observed that working hours frequently extend beyond eight hours, particularly during festive seasons and periods of high demand, indicating increased labour intensity in bakery work.
3. The wage structure shows noticeable variation, with helpers and untrained women receiving comparatively lower wages than skilled and trained workers.
4. The level of job satisfaction among women workers is found to be moderate, suggesting that while the work environment is generally acceptable, improvements in wages and skill development could enhance satisfaction levels.
5. The adoption of digital tools such as digital payments, social media communication, and online ordering systems has begun to create additional opportunities for women in bakery-related activities.
6. The absence of formal training and skill certification limits wage growth, career advancement, and overall skill enhancement among women employed in the bakery sector.

### CONCLUSION

The present study highlights the important role played by the bakery industry in promoting women's economic empowerment in Kolhapur district. Employment in bakeries has provided women with a regular source of income, enabling them to achieve a degree of financial independence and contribute to household expenses. The study reveals that bakery work offers relatively stable employment opportunities, particularly for women from economically weaker sections, making it a significant livelihood option within the informal sector.

However, the findings also indicate several challenges that limit the full empowering potential of bakery employment. Working hours often extend beyond regular limits, especially during festive seasons, increasing the physical burden on women workers. Wage levels remain modest, particularly for helpers and untrained women, and the absence of formal employment arrangements restricts access to job security and social protection. These factors contribute to only moderate levels of job satisfaction among women workers.

The study further observes that the use of digital tools has begun to open new opportunities in the bakery sector by enhancing communication, payment convenience, and market reach. Nevertheless, limited

digital skills and lack of formal training prevent many women from fully benefiting from these advancements. Overall, the study concludes that while bakery employment has the potential to serve as a sustainable pathway for women's socio-economic empowerment, its effectiveness can be significantly enhanced through structured skill development, fair wage practices, improved working conditions, and greater digital inclusion. Addressing these issues would strengthen the role of the bakery industry as an inclusive and empowering employment sector for women.

#### SUGGESTIONS

1. **Skill Development Programs** under MSDE and PMKVY for bakery machinery, digital marketing.
2. **Minimum wage enforcement** in small bakery units.
3. **Support for women entrepreneurs** through Mudra loans.
4. **Digital training workshops** for WhatsApp Business, Instagram, UPI, and online marketplaces.
5. **Occupational safety and health standards** adoption.
6. **Formation of women self-help bakery clusters** for better bargaining power.

#### REFERENCES

1. *Directorate General of Employment. (2023). Female Labour Utilization in India. Ministry of Labour and Employment, Government of India.*
2. *Labour Bureau. (2014). Socio-Economic Conditions of Women Workers in India. Ministry of Labour and Employment, Government of India.*
3. *National Institute of Rural Development and Panchayati Raj (NIRDPR). (Year). Women Beedi Rolling Workers: A Case Study. Hyderabad.*
4. *Vivekanand College, Kolhapur. (2022). Women Development through Cookery and Bakery Skill. International Journal of Food and Nutritional Sciences (IJFANS).*
5. *Zenodo. (2025). Rural Development and Women Empowerment: A Study of Bakery Industry in India. Working Paper / Preprint.*
6. *Krishi Vigyan Kendra (KVK). (2025). Bakery Products and Milk Processing by KVK-Trained Farm Women. Agricultural Extension Journal / Institutional Publication.*
7. *Indian Council of Agricultural Research (ICAR). (2025). Making Women Empowered and Self-Dependent through Baking Technology. ICAR Institutional Study.*
8. *International Journal for Multidisciplinary Research (IJFMR). (2025). Problems and Challenges Faced by Working Women in India.*
9. *Shivaji University, Kolhapur. (Year). Socio-Economic Background of Women Workers in Kolhapur Region. Unpublished Ph.D./M.Phil. Thesis.*
10. *Shodh.net. (1999). Bakery: A Skill-Based Entrepreneurship Booster for Women. Research Article.*