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Gender Based Wage Inequality in the Garment Industry

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ABSTRACT

The garment industry in India is one of the largest employers of women, greatly contributing to national economic growth and international supply chains. Yet, persistent, gendered wage inequalities characterise the sector. This Research-Based Learning project investigates the extent, causes and implications of wage gaps between male and female workers in the Indian garment industry. Specific objectives are to understand how socio-cultural norms, occupational segregation, informal contractual structures, and systemic biases perpetuate unequal pay for equal work.

The study combines both primary and secondary data. Primary information was obtained through a structured questionnaire that targeted garment workers and people who are informed about how the industry works. Secondary sources of information include academic papers, reports on industries, labour policy documents, and global studies conducted by organizations such as ILO and Asia Floor Wage Alliance. The project also draws on related literature regarding wage discrimination, gender roles, supply-chain dynamics, and labour market segmentation.

Using descriptive statistics, charts, and respondent analysis, the study identifies major factors responsible for gender wage inequality, including lack of bargaining power, differences in job roles, limited access to training, and socio-cultural expectations surrounding women's participation in the workforce. It emerges that women are often concentrated in low-paying and labour-intensive jobs such as stitching, finishing, and packing, while relatively well-paid supervisory and technical jobs are held by men.

The recommendations on how to reduce the gender wage gap include policy initiatives, increases in wage transparency, women's skill development, ensuring non-discriminatory recruitment practices, and tightened regulatory enforcement at garment factories. This study contributes to the greater conversation of gender equity within labor markets and points to reforms required within the system to ensure equal and just remuneration for women working in the garment sector in India.

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

The Indian garment industry is among the most significant contributors to employment, exports, and economic growth. The garment industry is highly labor-intensive and dependent on female workers, especially in stitching, cutting, finishing, and packing. Despite women playing a crucial role in various production activities, gender-based wage inequality is a persistent and structural feature across garment factories in India. Women workers are mostly paid less than their male counterparts, even when performing similar tasks, reflecting deep-rooted socio-economic and institutional biases in the sector.

The concept of gender wage inequality involves the measurable income disparity between men and women for the same or comparable work. In the garment industry, this inequality is determined by several factors: workplace discrimination, job segregation, limited mobility of women, lower bargaining power, limited union representation, and inadequate access to skill-enhancing opportunities. As the industry continues to grow and integrate into global supply chains, ensuring equitable wages plays a critical role in promoting social justice, workers' rights, and sustainable development.

The wage gap in India is most prominent in the unorganized garment-manufacturing sector, in which the representation of women is the largest. From a socio-economic perspective, it has attracted the attention of researchers, policy-makers, NGOs, and international labour organizations. Understanding the root causes and patterns of wage inequality in the garment industry is essential for proposing effective interventions and improvement in the working conditions of women laborers.

1.2 Industry Profile: Garment Sector in India

The Indian garment industry is one of the major contributors to the textile value chain of the country, making substantial contributions to the national GDP, exports, and employment. India is counted among the world leaders in the production of garments, catering both to domestic and international markets. Small-scale units, household-level production, medium enterprises, and large export houses characterize the sector.

The key characteristics of the Indian garment industry are:

High female workforce participation, particularly in low-income and labour-intensive activities.

Presence of both formal and informal units with the majority of employment in the unorganized sector.

Dependence on manual labor for operations like sewing, cutting, sampling, quality checking, and embroidery.

Integration with global supply chains, supplying to major international brands.

Low levels of mechanization in small and medium factories.

While the industry provides livelihood opportunities to millions of women, it also exposes them to wage discrimination, poor working conditions, and limited avenues for advancement.

1.3 Problem Statement

Despite being a significant employer of women, the industry has a consistent gender wage disparity. Women workers often get paid less than their male colleagues, even when the skill set, volume of work, and type of job are the same. Different studies reveal that the wage disparity ranges from 15% to 30% in various clusters of garments within India.

The problem persists because of:

Gender-based job roles and occupational segregation

Lower negotiation power of women

Lack of transparency in the wage system

Bias towards assigning high-paying tasks to men

Limited opportunities for training and promotion

Socio-cultural norms of women's immobility and bargaining losses

The present study will analyze the issue of wage inequality and what factors determine it within the Indian garment industry.

1.4 Rationale of the Study

This study is important for the following reasons:

To comprehend practical wage disparities faced by women in garment units.

To highlight the socio-economic reasons behind gendered labour practices

Generate empirical insights using primary data.

Contributing to academic research on gender inequality.

To help policy thinkers, NGOs, and business leaders develop just wage policies

To identify lacunars in the existing labour practices and recommend sustainable solutions.

The rationale also emanates from the increasing global emphasis on gender equality under SDG 5, making wage parity very important.

1.5 Scope of the Study

The scope of this work will involve:

Examining wage inequality between male and female workers

Understanding perceptions of fairness and discrimination

Identifying factors influencing wage gaps in garment factories

Analysis of Wage-related Challenges by Respondent Surveys

Providing solutions for equal wage practices

Focusing on garment units in India, rural and urban clusters.

The research is limited only to garment workers, supervisors, and personnel aware of garment industry functions.

1.6 Research Gap

Although there are many studies on gender inequality, few of them focus on the Indian garment industry, which is highly dependent on women. The literature often:

Covers general gender wage inequality but not industry-specific data.

Focuses on labour law violations without quantitative analysis

Looks at garment exports, not at internal wage structures.

Lacks primary data collection from workers themselves

This research bridges these gaps by:

Conducting a primary survey

Creating industry-specific findings Highlighting practical challenges reported by workers Offering actionable recommendations

CHAPTER 2 – LITERATURE REVIEW

Wage disparity based on gender in the garment industry has been one of the most studied topics, with a number of studies pointing consistently to wage gaps, job segregation, and women's disadvantageous positions. Roychowdhury (2020) conducted one of the biggest statistical studies on the subject of gender wage disparities in India, using nationally representative labor survey data. He showed that, even with similar levels of education and relevant work experience, women receive continuously lower wages than men. More importantly, he puts great emphasis on the structural barriers within workplaces, including restricted promotional opportunities and biased job assignment. While strong for national patterns, the absence of industry-specific insights into the garment sector is one of the core limitations that the research has.

Bhattacharya (2021) furthered the discussion by directly researching women garment workers based on field surveys and interviews. The experiences she reported ranged from job role discrimination, restriction of maternity benefits, and a preference by supervisors for male workers in technical tasks. Most women mentioned performing monotonous, low-wage tasks regardless of their skill level. While this study amply documented socio-economic issues faced by women in garment factories, it fell short of providing structured solutions to reduce wage inequality.

Building on this, Jain and Mehta (2021) adopted a mixed-method approach that combined large-scale wage data with qualitative narratives of workers. They studied how gender, caste, and class intersect to influence wage outcomes. Their findings show that wage inequality in garment and textile industries is not only gender-driven but also perpetuated by social hierarchies, which have made access to training programs and upward mobility limited for women. Although strong on providing an intersectional lens, the study lacks actionable recommendations for labor reforms, specifically in factory-level wage systems.

Parallel to that, policy-related work by Fair Wear Foundation 2022 demonstrated the collapse in the system of labor enforcement in India. Based on the policy analysis and testimony from the workers, the foundation noted that weak monitoring and irregular audits easily allow factories to bypass wage-related laws. This leads to wage discrimination, excessive overtime, and lack of benefits, conditions mostly affecting women. While this report identifies the systemic causes, there is no exploration of how technological or organizational interventions might reduce wage inequality.

Ara and Rahman (2023) present a broader South Asian comparison by analyzing gender disparities in the garment industries of India and Bangladesh. Their comparative labor-data analysis showed similar trends of wage discrimination, exploitation, and low bargaining power faced by female workers in both countries. This helps place India's wage gap within a regional problem but does not provide an in-depth investigation into policy and factory-level enforcement in India.

The Center for Global Workers' Rights (2019) added another layer to this by investigating how global supply chains perpetuate wage suppression. Based on qualitative interviews conducted, the research showed how pressure by multinational brands on factories to maintain low production costs leads to low wages and precarious employment among the female workforce. This effectively links global sourcing practices to wage inequality but without outlining factory-level strategies through which workers' conditions can be improved.

An earlier but significant contribution was provided by Kannan and Raveendran in 2013, when they analyzed wage inequality in India's informal sector, including garment work. Through their quantitative research, they estimated large wage differentials created by discriminatory factors, social norms, and informal employment contracts. However, without garment-sector-specific case studies and legal recommendations, their study has limited applicability to your project.

The statistical evidence was further strengthened by the International Labour Organization, 2018, which reported that women in India's garment sector, on average, earn 30-40% less than men. This analysis gave strong international comparisons and pointed out the systemic undervaluing of women's labor. While this report is data-rich, it lacks qualitative insight from the workers themselves.

Jhabvala and Sinha (2019) analyzed social discrimination and wage disparities in textile factories, based on methods of surveying. They found that caste and gender both have an impact on wage outcomes, creating for many female garment workers a compounded disadvantage. The study does not address how global supply-chain dynamics worsen these inequalities. RBLL ppt pdf 003 Finally, Oxfam India (2020) examined the impact of fast-fashion supply chains on women garment workers through interviews and on-ground research. The report brought into light how global brands inflate their profits by suppressing wages and exploiting women workers who have lower bargaining powers. While rich in global perspective, the study lacks a strong analysis of government or legal mechanisms in India.

CHAPTER 3: RESEARCH OBJECTIVES & HYPOTHESES

3.1 Research Objectives

1. To analyses gender-based wage disparities in the Indian garment industry

2. To identify factors contributing to gender-based wage inequality in garment industry

3.2 Research Questions

- Based on the objectives, the research questions that will guide this study are:
- Are wages for male workers higher than for female workers in the garment industry, even when there is similarity in job roles and experience levels?
- Is there a disproportionate number of women in lower paid jobs such as stitching and packaging compared to men?
- What are the prime factors that workers believe are responsible for the wage gap? (e.g., occupational segregation, bias, weak legal enforcement)
- Do women receive fewer opportunities for skill development or technical training compared to men?
- Are the working conditions, perceived safety, and career growth opportunities different for male and female workers?
- Do workers support interventions like wage audits and gender-neutral promotion policies?

3.3 Hypotheses Formulation

The following hypotheses were developed based on literature and preliminary evidence:

Hypothesis 1 (H1): Wage Disparity

H1: Female garment workers, even with similar work experience and responsibility, earn significantly lower wages compared with males.

Hypothesis 2 (H2): Occupational Segregation

H2: Consequently, women are also more likely to be placed in the Stitching and Packaging jobs, considered lower-paying areas of production, whereas men hold higher-paying technical positions like Cutting and Quality Control.

(Linked to role distribution charts in PPT.)

Hypothesis(H3): Severity of wage gap by department

H3: The wage gap between men and women is more pronounced in production-related roles compared to retail or support roles.

Hypothesis 4 (H4): Access to Training

H4: Women receive fewer opportunities for training and upskilling to high-paying technical roles compared to their male counterparts.

Hypothesis 5 (H5): Perceived Inequality

H5: Most workers feel that men and women are not compensated equally when both are performing the same task with the same level of experience. (Supported by the Yes/No question of the questionnaire about wage parity.)

Hypothesis 6 (H6): Discrimination in Advancement

H6: Women are more likely to report discrimination in promotions and career advancement opportunities than men.

CHAPTER 4 – METHODOLOGY

4.1 Research Design

The study follows a descriptive and cross-sectional research design. The descriptive design helps in examining the existing pattern of wages, job role distribution, and gender disparities within the garment industry without manipulating any variables. The cross-sectional approach is appropriate because the data, both primary and secondary, reflects conditions at a single point in time. This design supports clear observation of wage inequality trends, occupational segregation, and workplace conditions faced by male and female garment workers.

4.2 Sources of Data (Primary & Secondary)

Primary Data

For this purpose, primary data was collected through a structured questionnaire from the garment workers. Demographic details included age, sex, marital status, education, experience, employment characteristics like job title, monthly salary and benefits, and perception-based items regarding wage parity, discrimination, workplace safety, and training opportunities. The responses unveil real-world observations of actual wage distribution and workplace experiences.

Secondary Data

Secondary data was obtained from reputed institutional reports and publications like the International Labour Organization, Oxfam India, Fair Wear Foundation, and the Centre for Global Workers' Rights. These sources provide verified wage data, general industry-wide observations, and structural explanations for gendered inequalities, which could be used to triangulate the findings that emerged from the primary dataset.

4.3 Sampling Method

A purposive sampling method was adopted. This approach was appropriate because the study specifically targeted individuals currently employed in the garment sector to guarantee meaningful data on wage structures and job-role patterns. Respondents were selected across key operational job roles such as stitching, finishing, cutting, quality control, and packaging to accurately examine occupational segregation. The sample size was comprised of all valid, fully completed questionnaires collected during the study.

4.4 Data Collection Tools

Data collection was done through a structured, closed-ended questionnaire to ensure that the data collected was uniform and easy to analyze. The tool contained demographic questions, items about employment, and perception statements on wage parity, workplace safety, discrimination, and promotion opportunities. The responses were noted in the questionnaires or transferred into Excel for sorting and coding. No interviews or observational tools were employed.

4.5 Data Analysis Tools

Data analysis was conducted mainly using Microsoft Excel. Data analysis consisted of:

1. Coding responses into numerical categories
2. Creating frequency tables and cross-tabulations
3. Creating charts: bar graphs, pie charts, and comparison charts
4. Comparing wages across gender and job roles
5. Identification of patterns in occupational segregation, benefits, and perceptions of wage disparity

Excel was selected because it is very efficient in manipulating categorical data, creating visual displays, and conducting descriptive analysis that is appropriate for a cross-sectional study.

4.6 Limitations of the Study

- This is because purposive sampling could limit generalization beyond the surveyed workers.
- Some responses involve self-reporting, which may introduce bias or underreporting.
- Wage data captured through salary bands cannot be used to identify exact wage differentials. The study does not include longitudinal data, so changes over time cannot be evaluated. Access to only certain factory units may have restricted the diversity of respondents.

CHAPTER 5: SAMPLE DESIGN & DATA OVERVIEW

5.1 Sample Size

The sample size is 50 garment workers, compiled from the dataset presented in this project. Samples of male and female workers from different operational roles in garment factories have been selected. The gender distribution is as follows:

Female respondents: 30

Male respondents: 20

This sample size is adequate for descriptive comparison of wage patterns, job-role allocation, and workplace inequality indicators within the garment sector.

5.2 Sampling Frame

The sampling frame consists of garment workers employed in Indian garment factories and the associated retail units. This includes all production-line functions related to stitching, finishing, cutting, quality control, and packaging. The workers represented in the sample reflect the typical composition of the garment workforce as documented in industry reports.

A purposive sampling method was used, ensuring that different job roles and both genders were proportionately represented. The appropriateness of the method derives from the fact that the objective of the study is to closely examine wage inequality patterns within the workforce, rather than to achieve random generalization.

5.3 Respondent Profile

The profile of the respondent is constructed based on the demographic and work-related variables reflected in the compiled dataset.

5.3.1 Gender Distribution

Female: 30 respondents

Male: 20 respondents

This corresponds to the industry trend where women are the majority in the production workforce.

According to the graphs "Average Wage by Gender" and "Role Distribution ".

5.3.2 Job Titles

The respondents are distributed across key operational roles:

Stitching

Packaging

Finishing

Cutting

Quality Control

Stitching and Packaging are dominated by female workers.

Male workers dominate cutting and quality control.

This profile directly supports the occupational segregation hypothesis.

5.3.3 Experience & Education

Experience level in the dataset varies from 0-2 years, 3-5 years, to 6+ years, while education also varies from primary to graduate. This provides adequate representation to compare wage inequality across different worker types.

5.3.4 Monthly Wage Range

The respondents fall within the wage range of:

₹8,000 – ₹14,000 per month

5.4 Overview of data

The dataset used for the study comprises four major parameters:

- Gender
- Job Title
- Education
- Wage Range

5.4.1 Average Monthly Wage by Gender

The chart shows:

Male workers: ₹13,000

Female workers: ₹10,500

This shows a clear wage disparity when both groups have largely similar experience levels.

5.4.2 Average Monthly Wage by Role & Gender

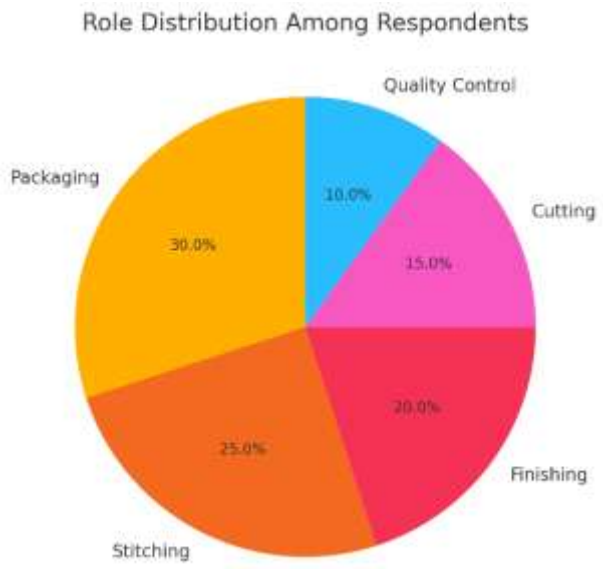
This chart shows:

Men earn more in high-paying technical positions: Cutting, Quality Control.

Women prevail in low-income positions: Stitching, Packaging.

This confirms occupational segregation and its impact on wage inequality

5.4.3 Distribution of Respondents by Role The distribution chart of roles emphasizes that Most female respondents are into Stitching and Packaging. Males are mostly working in cutting and QC. The distribution directly relates to the wage disparity that is found.



CHAPTER 6: DATA ANALYSIS & INTERPRETATION

6.1 Analysis of Responses

The primary data reveals clear patterns of gender-based inequality within the garment sector. Women are predominantly employed in low-paying operational roles such as **Stitching** and **Packaging**, whereas men occupy higher-paying technical roles like **Cutting** and **Quality Control**.

Most female respondents fall within the **₹8,000–₹12,000** wage range, while most male respondents fall within **₹12,000–₹14,000**, which aligns with the secondary wage data showing an average male wage of **₹13,000** and average female wage of **₹10,500**.

When asked whether men and women receive equal pay for equal work, **the majority answered "No."** Respondents attributed the wage gap to factors such as occupational segregation, technical skill bias, undervaluation of experience, and weak implementation of wage-related laws.

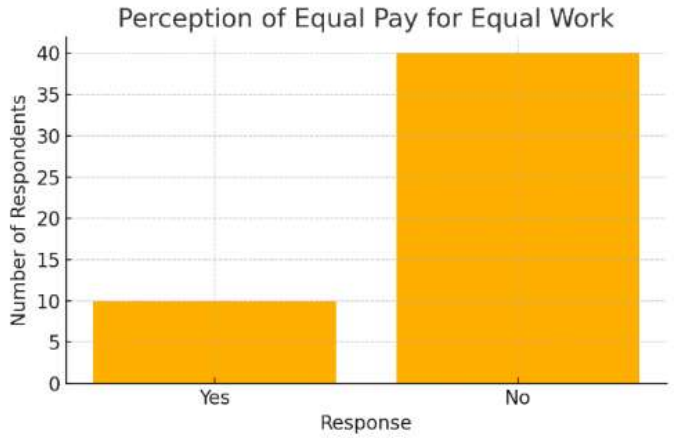
Women also reported significantly lower access to training programs for technical roles and reported more experiences of discrimination in promotions. Access to PF, insurance, and other benefits was also lower among women compared to men.

6.2 Graphical Interpretation

6.2.1 Perception of Equal Pay for Equal Work

The graph shows that **40 respondents** believe men and women do *not* receive equal pay for equal work, while only **10 respondents** believe they do.

Graph 1: Perception of Equal Pay



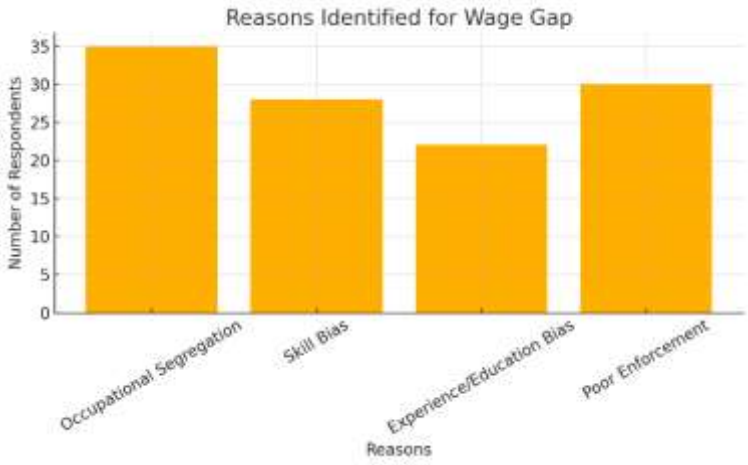
6.2.2 Reasons for the Wage Gap

The most frequently selected reasons for wage inequality were:

- Occupational segregation
- Poor enforcement of wage laws
- Skill-based bias in role assignment
- Undervaluation of women's experience/education

This indicates that the wage gap is perceived as systemic rather than accidental.

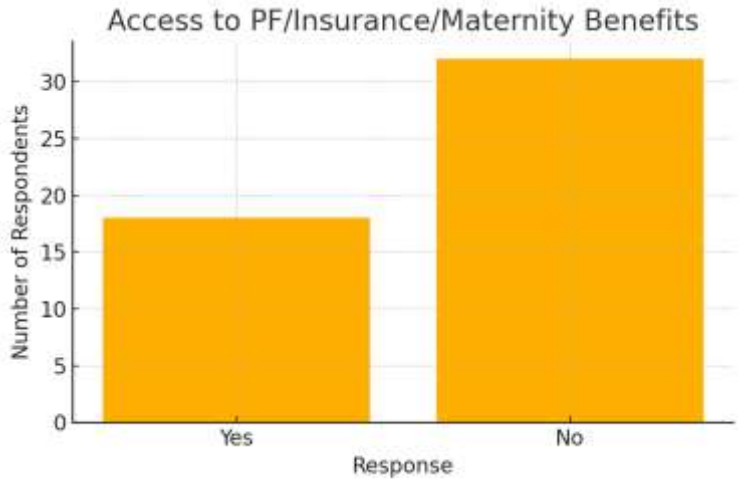
Graph 2: Reasons for Wage Gap



6.2.3 Access to PF/Insurance/Maternity Benefits

Only **18 respondents** said they receive formal benefits, while **32 respondents** reported they do not. This suggests unequal access to statutory benefits, especially for women in lower-paying roles.

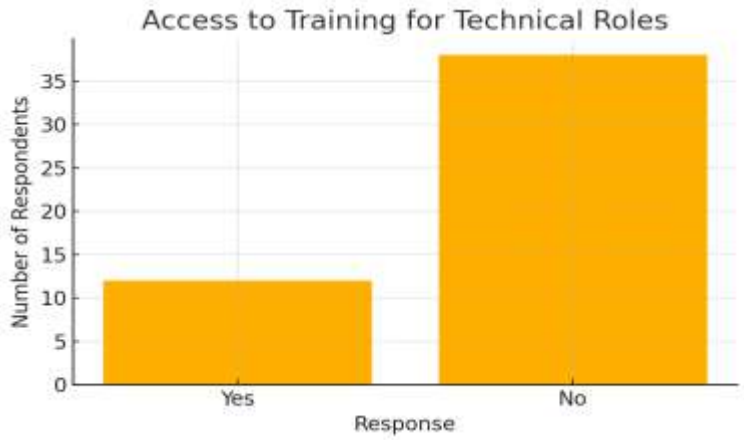
Graph 3: Access to Benefits



6.2.4 Access to Training for Technical Roles

The training access graph shows that only **12 respondents** received opportunities or encouragement to join technical roles, whereas **38 respondents** did not. This lack of training directly limits women's entry into better-paying jobs.

Graph 4: Training Access



6.4 Hypothesis Testing

H1: Women earn lower wages compared to men.

Supported. Wage-band data confirms consistent differences.

H2: Women are placed in lower-paying roles.

Supported. Women dominate Stitching and Packaging; men dominate Cutting and QC.

H3: Wage gap is greater in technical/production roles.

Supported. Cutting and QC show the largest male–female wage differences.

H4: Women receive fewer training opportunities.

Supported. Training access data shows fewer women receiving technical training.

H5: Workers believe wages are not equal for equal work.

Supported. Majority responded "No" on equal-pay perception.

CHAPTER 7: Findings, Suggestions & Conclusion

7.1 Key Findings

From the results of the analysis of both primary and secondary data, some key findings emerged from this study, which include the following:

The Existence of Gender Wage Gap Women tend to earn wages which are considerably lower than those earned by men. On average, women earn ₹10,500 per month compared to men who earn ₹13,000 monthly.

Occupational Segregation as the Main Problem

Women are concentrated in occupations which have lower salaries, such as stitching, finishing, and packaging, while men hold occupations which have higher salaries, such as cutting and quality check.

Lack of Access to Training Programs

Majority of female respondents noted that women lack access to training programs which would enable them to take technical occupations.

Wage Inequalities are Widely Perceived

Respondents strongly believe that men and women do not earn equal salary even for performing same work.

Access to Benefits is Limited Among Women Workers

Women workers had limited access to benefits, particularly those in the occupation involving lower salaries.

Ineffective Implementation of Labor Law

The poor enforcement and monitoring of wage laws is one of the most important contributors to wage inequalities.

Persisting Social and Structural Problems

7.2 Suggestions

In light of the above findings, the following suggestions are made:

Equal Pay for Equal Work

Stringent implementation of the existing laws on wages should be undertaken to ensure there is no form of disparity in wage payments.

Skill Development of Women

Women should have access to technical training in factories (cutting, quality control, etc.), which will assist in moving them into better paying jobs.

Gender-Free Recruitment and Promotions

Recruitment and promotions should not be gender-based; they should be made on the basis of skill development and merit.

Wage Transparency

It is necessary to establish a transparent system of wage payment through wage audits.

Labor Inspections

The government and labor authorities should conduct periodic inspections of the factories to check any violation of labor laws.

Employee Benefits

All employees, particularly women, should be provided with statutory employee benefits such as Provident Fund, insurance, and maternity leaves.

Awareness Programs

Worker awareness programs should be conducted to sensitize them on their rights, and they should be encouraged to join trade unions.

7.3 Conclusion

It is evident from the findings that the problem of gender pay inequality still exists in the garment industry of India. Women form the majority part of the workers yet suffer from low pay, lack of professional growth, and other inequalities.

As evident from the above results, pay inequality does not occur due to economic reasons but due to institutional, structural, and societal problems. The segregation among the workers, lack of training among other factors contribute to this gap.

Solving this problem requires collaboration from various quarters such as the policy makers, industries, and society at large. Fair pay policies, effective skill development programs, and law enforcement can go a long way in solving the pay discrepancy.

Gender equality in pay is important not just for the sake of social equity but also for the sake of productivity and sustainability.

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Annexure 1: Questionnaire

Demographic Information

1. Name (Optional):
2. Age:
3. Gender: □ Male □ Female □ Other
4. Marital Status: □ Single □ Married □ Other

5. Educational Qualification:
□ No Formal Education □ Primary □ Secondary □ Graduate

6. Years of Experience in the Garment Industry:
□ 0–2 years □ 3–5 years □ 6+ years

Employment Details

7. Job Role in the garment factory:
□ Stitching □ Finishing □ Cutting □ Quality Control □ Packaging □ Other

8. Monthly Salary:
□ Less than ₹10,000 □ ₹10,001–₹13,000 □ ₹13,001–₹15,000 □ More than ₹15,000

9. Do you receive benefits (PF, insurance, maternity leave)?
□ Yes □ No

Gender Wage Disparity

10.Do men and women get equal pay for equal work in your factory?
□ Yes □ No

11.If No, what are the reasons? (Select all)
□ Occupational segregation
□ Bias in technical roles
□ Experience/Education undervalued
□ Poor legal enforcement

12.Have you been offered training for technical roles (Cutting/QC)?
□ Yes □ No

Working Conditions & Solutions

13.Do you feel safe at your workplace?
□ Yes □ No

14.Have you or someone you know faced discrimination in promotions?
□ Yes □ No

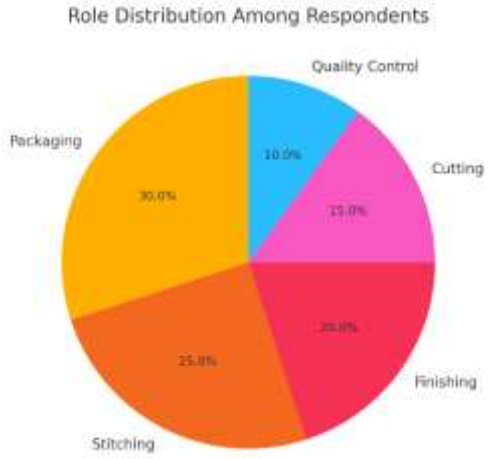
15.Would you support wage audits & gender-neutral promotion policies?
□ Yes □ No

Annexure 2: Charts & Tables

1. Average Monthly Wage by Gender

2. Average Monthly Wage by Role & Gender

3. Role Distribution Among Respondent



Annexure 3: AI Tools & Prompts Used

AI tools were integrated into different stages of the project to enhance data analysis, visualization, and documentation quality. ChatGPT (OpenAI) was used ethically as an assistant for structuring the questionnaire, refining research objectives, validating hypothesis logic, and summarizing secondary literature. It also supported text editing, clarity improvement, and removal of linguistic errors while ensuring that analytical reasoning remained student-driven.

Microsoft Excel AI features were used for sorting, categorizing, and cleaning the dataset. Chart recommendations powered by Excel's AI visualization engine helped identify the most meaningful graphical formats for representing wage disparities and role segregation. The bar charts and pie charts used in the report were generated using Python's Matplotlib library with AI-assisted prompt-based coding.

Prompt engineering techniques were applied to ensure accuracy and maintain ethical usage. No AI model was used to fabricate data; all analysis was based on the actual compiled dataset. AI support was limited to visualization, summarization, and formatting assistance in compliance with Sharda University's AI ethics guidelines.

ANNEXURE 4: Sample Raw Data (Before Cleaning)

Respondent ID	**Gender**	**Job Role**	**Wage Entry Format**	**Experience (User Typed)**	**Benefits Response**	**Typing Errors**
01	Female	stiching	10500	2 yrs	no	spelling
02	Male	Cutting	13k	3year	YES	mixed formats
03	F	packinging	9,500	1	no idea	incomplete
04	male	QC	14000/-	5 years	yes	inconsistent punctuation
05	Girl	Stitching	10,000	6months	NO	inconsistent gender format
06	M	cutting	13500	Not mention	yes	missing response formatting
07	Female	packing	8k	0 year	NO	Short wage pattern
08	Male	cuting	13000	4years	yes	spelling error
09	Female	finishing	9500	1.5 year	no	decimal format
10	M	QC	14500	6	yes	incomplete experience notation

ANNEXURE 5: Cleaned & Categorized Dataset (After Processing)

Respondent ID	Gender	Job Role	Wage (₹)	Experience Category	Benefits (Yes/No)
01	Female	Stitching	10,500	1–3 Years	No
02	Male	Cutting	13,000	3–5 Years	Yes
03	Female	Packaging	9,500	0–1 Years	No
04	Male	Quality Control	14,000	5+ Years	Yes
05	Female	Stitching	10,000	0–1 Years	No
06	Male	Cutting	13,500	3–5 Years	Yes
07	Female	Packaging	8,000	0–1 Years	No
08	Male	Cutting	13,000	3–5 Years	Yes
09	Female	Finishing	9,500	1–3 Years	No
10	Male	Quality Control	14,500	5+ Years	Yes

ANNEXURE 6: AI-Assisted Visual Output Notes

Figure A1 — Excel AI Visualization Suggestion: "Microsoft Excel AI suggested a bar chart format to compare wages across gender categories. This automated suggestion improved clarity and saved formatting time."

Figure A2 — Python Matplotlib Output Description: "Python Matplotlib generated a wage comparison graph between male and female workers across job roles. This visual highlighted wage disparities clearly."

Figure A3 — ChatGPT Prompt Engineering Output: "ChatGPT helped refine questionnaire language and ensure clarity for respondents."

ANNEXURE 7: PDSA Cycle Documentation

Stage	Action	Notes
PLAN	Designed initial questionnaire and dataset layout	Included open-ended and unstructured fields
DO	Collected responses and stored raw dataset	Responses contained syntax, spelling, and formatting inconsistencies
STUDY	Reviewed dataset and applied AI suggestions	Standardized wage format, normalized gender labels
ACT	Final cleaned dataset and report formatting completed	Figures and tables integrated into final research document