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Gender Wage Gap, Working Conditions and Sustainable Development Goals: A Situational Analysis of Pakistan

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Abstract

The role of women in the nation's development is crucial and has been acknowledged globally. This study examines the working conditions and gender wage disparity in the context of pre- and post-Sustainable Development Goals (SDGs) adoption, using micro-datasets of Pakistan. We employed event methodology for empirical analysis of working conditions-SGDs nexus and used Oaxaca-Blinder decomposition for gender wage discrimination. The results reveals that working conditions improved for female after adoption of SGDs. Propensity score analysis also confirm the same findings. There is reduction in gender-wage gap after adoption of SGDs. The improvement in working conditions and reduction in gender-wage gap is an evidence that there is rise in women empowerment (measured by improvement in female working conditions and rise in gender-wage parity) in Pakistan as a result of SGDs adoption. Our estimates are robust and are insensitive to sectoral, occupational and provincial heterogeneity. Consequently, the government should implement several policies that facilitate the achievement of the Sustainable Development Goals (SDGs) aimed at promoting gender equality and empowering women and girls.

Keywords: *Gender wage gap, Working conditions, Sustainable Development Goals, Women empowerment, Oaxaca-Blinder Decomposition, Event methodology, Propensity score analysis*

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1. INTRODUCTION

Women are pivotal to sustainable development, and recent global policy frameworks have increasingly highlighted their empowerment as both an objective and a means for inclusive progress. SDG 5 explicitly advocates for gender equality and the empowerment of all women and girls, but SDG 8 endorses decent work and economic prosperity for everyone. Recent studies confirm that women's economic empowerment is crucial for attaining wider development objectives, including poverty reduction, enhanced health, and education (Leal Filho et al., 2023; Wei et al., 2021). Furthermore, the inclusion of women in productive work and leadership positions substantially enhances sustainable and equitable development (Sertyesilisik, 2023).

The concept of 'women's empowerment' is increasingly recognized as a global goal. The phrase "women empowerment" refers to "granting women the autonomy to think and act independently," to exercise choice, and to recognize their potential as equal participants in society (Khan, 2020). Empowerment is a multifaceted perspective comprising several factors (Mayoux, 1998). Women's empowerment is typically defined as the political, social, and economic emancipation of women. In 1995, the United Nations Development Programme (UNDP) introduced the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM) to assess gender-related development and gender equality, respectively (UNDP, 2022).

The United Nations identifies gender equality as a key Sustainable Development Goal because it is a basic human right that supports peace, prosperity, and overall development worldwide. Achieving gender equality positively influences a nation’s economic growth, political participation, education, and health outcomes (Bai et al., 2022). The implementation of the United Nations SDGs in 2015 has markedly strengthened worldwide initiatives to advance gender equality, particularly through SDG-5, which focusses on attaining gender equality and empowering all women and girls (United Nations, 2015). Gender inequality significantly impacts the achievement of Sustainable Development Goals, as women face greater challenges than men in areas such as education, healthcare, finance, and poverty (Jeevanasai et al., 2023). The prime focus of SDGs is on reducing systemic problems that abstain women from participation in different fields of life by coping inequalities in education, healthcare, and economic opportunities.

The connection between women's overall empowerment and economic empowerment is very strong, especially when it comes to the SDGs. This is especially true for SDG 8, which aims to promote economic growth that is both sustainable and inclusive, as well as good job opportunities. Findings indicate that

enhancing women's empowerment contributes positively to their well-being, stimulates economic growth, and reduces poverty According to Duflo (2012) and Wei et al. (2021), improving women's empowerment is good for their health, helps the economy grow, and lowers poverty. The SDGs are a way to make society more fair and inclusive by focusing on improving women's wages, access to education, and ability to work. There is now more attention and thought given to giving women more economic power. People agree that this is the best way to achieve gender equality, improve the health of women and children, and promote social stability. This means that more women joining different groups could help close the pay gap between men and women (Santero-Sánchez & Núñez, 2025).

The Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs) both stress the need to achieve gender equality and give girls and women more power (SDG 5). The goals include promoting gender equality, giving women more power, reducing violence and discrimination against women, and getting more women involved in politics, business, and public life, especially in leadership and decision-making roles. SDG 8 also stresses the need to promote productive and fair work for people of all genders in order to support inclusive and long-term economic growth (Ernst, Pagot, & Prá, 2024). The International Labour Organisation (ILO) says that SDG-8 is based on the idea of full employment and decent work. It includes all four basic elements: freedom, fairness, security, and human dignity. The ILO emphasises that "decent labour is now a fundamental element of the new global agenda for sustainable development." The MDG's goal of "Full employment and decent work for all" is acknowledged as a distinct ambition. Nonetheless, the SDGs and MDGs do not prioritise poverty elimination, choosing instead a goal of "sustained inclusive and sustainable economic development." The integration of the two goals results in a diminished number of targets for full employment and quality work as independent aims. Moreover, a notable divergence is that economic growth in SDG-8 is raised from a mere instrument for development to an objective in its own right. It is unclear whether economic expansion should be the principal objective for sustainable development (Frey, 2017).

Extensive research in this domain acknowledges the impact of gender disparity solely on trade openness (Aguayo-Tellez, Airola, Juhn, & Villegas-Sanchez, 2014; Chen, Ul-Haq, Visas, & Cheema, 2019; Fatema, Li, & Islam, 2017; Robertson, 2007), and wages (Distelhorst & Fu, 2017; Jann, 2008), (Robertson, Di, Brown, & Dehejia, 2016). There is not a single study, to the best of our knowledge, that has examined the working conditions and the gender wage difference in the pre- and post-SDGs adoption event, and there is a paucity of literature on this subject. To get some glimpse into the whole story we look at some of the descriptive statistics for females during two time periods i.e., 2010

(well before the SDGs adoption in 2015) and 2018 (sufficiently distant from the adoption of SDGs in 2015).

Incorporating crucial descriptive statistics will enhance the introduction and facilitate a seamless transition into the formal empirical analysis. Since the implementation of the SDGs in 2015, notable advancements in women's economic engagement have been evident in Pakistan. Data from the Pakistan Labour Force Survey indicates that the average income for women rose by roughly 121% from 2010 to 2018, hence decreasing the unexplained gender wage gap from 73% in 2010 to 36% in 2018. Moreover, the proportion of women in formal employment has increased from 22% between 2010 and 2014 (ILO, 2016) before to the adoption of the SDGs to 25% currently, indicating better working conditions and greater access to secure job opportunities. It is also worth noting that the implementation of the SGDs has resulted in beneficial improvements, indicating that they have contributed to the growth of gender equality in the labor market. However, challenges like ongoing wage gaps and a lack of representation in high-skilled fields continue to exist, necessitating a more comprehensive empirical study to clarify the specific effects of SDGs implementation on women's empowerment and labor market results.

We chose to conduct an empirical analysis of working conditions and the gender wage gap, focusing on the period before and after the adoption of the Sustainable Development Goals in Pakistan. This study utilized event methodology for analysis, following the approaches established by Savchenko and Lopez-Acevedo (2012) and Chen et al. (2019) regarding working conditions. The main goals of this study are to look at working conditions in Pakistan in relation to the adoption of pre- and post-SDGs using event methodology. Second, to look at the difference in pay between men and women before and after the SDGs were adopted and make policy suggestions based on the findings.

The structure of this study is as follows. Part 2 gives an overview of the literature and Part 3 explain the theoretical framework. The fourth part is all about the data and the empirical method used. Part 5 explains the study's results and makes suggestions for policy changes. The last part concludes the study and gives policy recommendations.

2. LITERATURE REVIEW

The Sustainable Development Goals (SDGs), especially SDG 5, stress how important it is to promote gender equality and give women and girls more power as key parts of development that is both sustainable and open to everyone. Recent research shows that including gender issues in comprehensive development plans improves outcomes in many areas. Leal Filho et al. (2023) study say that making

national plans match the SDG goals speeds up changes that make it easier for women to get involved in politics and the economy. Sertyesilisik (2023) stresses how important it is to give women power by giving them access to education, health care, and safe places to work. Wei et al. (2021) show that giving women ore economic power greatly lowers multidimensional poverty in rural areas of South Asia. This shows how important it is for development. Lei, Desai, and Vanneman (2019) warn that economic growth alone may not lead to gender equality if traditional norms stay the same, as seen in male-dominated job markets.

Recent research has shed light on the issues and progress of gender equality in the context of Sustainable Development Goal 5, adding to this global perspective. Jeevanasai et al. (2023) look at the social, economic, and institutional barriers that make it hard for women to have a say in environmental governance. They say that gender issues need to be more closely linked to environmental sustainability.

Ernst et al. (2024) note that even though women's political representation has improved in South America, there are still major problems because of deeply ingrained cultural and institutional norms. Bai et al. (2022) demonstrates that in China, women earn just 71.57% of men's income, with marital status significantly influencing discriminatory behaviours, underscoring the necessity for supportive policies for working women. Santero-Sánchez and Núñez (2025), in their analysis of Spain's wage structure, identify that salary disparities are most pronounced among low-income earners; nevertheless, these disparities diminish as women assume leadership positions. Blundell, Duchini, Simion, and Turrell (2025) examines the impact of a 2018 pay transparency policy in the UK, demonstrating that mandating employers to disclose gender pay gaps has mitigated wage disparity, chiefly by decelerating male salary growth and fostering equitable hiring practices.

Collectively, these studies highlight the multifaceted character of women's empowerment and the necessity of addressing institutional, economic, and cultural obstacles through focused and evidence-driven policy strategies.

2.1 Theoretical Framework

These are a few framing concepts that guided to choose, summarize, and integrate the literature on women's empowerment and gender equality.
Two major channels that are utilized in literature regarding women empowerment are as follows.

↑SDGs Implementation → wages at the domestic level (including women wages) ↑→ labour force participation (including women participation in work) ↑ Gender inequality ↓→ Women's Empowerment ↑ (Peters, Astone, Malik, Maret, & Heller, 2016)

↑SDGs Implementation → Economic growth ↑→ Opportunities for women as compared to men ↓→ Women involvement in the labour market ↓→Gender inequality↑→ Women's Empowerment ↓(Lei et al., 2019).

There are two main theoretical paths that come from the implementation of the Sustainable Development Goals (SDGs) in the context of women's empowerment. The first channel says that making progress towards the Sustainable Development Goals (SDGs) could lead to higher wages at home, especially for women, which would encourage more women to join the workforce. Higher pay and better job opportunities make it more likely that women will join and stay in the workforce, which gives them more economic freedom and power. This corresponds with scholarship highlighting that financial independence is fundamental to empowerment, since it grants women greater authority over domestic decisions and societal positions.

In contrast, the second channel indicates that economic development driven by SDGs may disproportionately enhance men's earnings, so augmenting household income to a level where families may experience diminished pressure to employ women. In such circumstances, women may exit the labour market, so constraining their empowerment by diminishing their economic autonomy and social agency. This underscores a possible paradox in which overall economic progress, although advantageous for males, may inadvertently hinder women's empowerment by perpetuating conventional gender roles. Apart from the financial aspect empowerment has many other dimensions and different researchers used different gauges such as (education, participation at the place of work, exposures to mass media, freedom of movement, and gender equality) for the empowerment of women (Kabeer, 2021).

Current literature reveals inconsistent results about the predominance of these channels, with dynamics differing across various circumstances. This study seeks to objectively evaluate these opposing ideas in the context of Pakistan, where cultural and socio-economic variables may uniquely influence the trajectories of women's empowerment in relation to the SDGs' objectives.

3. METHODOLOGY

We employ nationally representative cross-sectional survey data of households from two years, i.e., the 2010 and 2018 Pakistan Labour Force Survey (LFS) conducted by the Pakistan Bureau of Statistics. We aggregate the LFS data from the years 2010 and 2018 for each analysis. The LFS is an annual survey carried out across four quarters to reduce seasonal variations. The major objective of the labour force survey is to gather data on a wide range of aspects about the nation's civilian work force. The LFS primarily provides information on several aspects of

the nation's labour force. The demographics encompass statistics on attributes including age, gender, household leadership, marital status, literacy, educational achievement, employment, industry affiliation, and population movement. The workforce consists of the following: (a) a classification by sector, including both formal and informal industries; (b) statistics on workplace safety and health for employed people; and (c) a classification of unemployed people based on prior work experience and education level.

Since we wanted to exploit the SDGs adoption event in our study to see if this event has any (and to what extent) effect on working conditions in relation to gender disparity, therefore we employed empirical strategy of an event study that is an analysis of the working circumstances scenario preceding and succeeding a clearly identifiable occurrence. (SDGs adoption in our case).

3.1 Regression Analysis

In this paper, we use data from Pakistan Labor Force Surveys by applying event methodology with year (2015) as the timeline for when the SDGs were formally adopted by Pakistan. Following Chen et al. (2019), the exact form of our model is as follows:

$$WC_{kt} == \alpha + \beta\ Gender_{kt} + \sum \gamma_p\ Married_{pkt} + \delta_1\ Age_{kt} + \delta_2 Age^2_{kt} + \delta_3 Edu_{kt} + \sum \theta_j\ Ind_{jkt} + \sum \mu_i\ Ocp_{jkt} + \lambda \times Year + \varphi \times Year \times Gender + \omega_{kt} \quad (1)$$

WC here refers to working conditions. Following, Savchenko & Lopez-Acevedo (2012) and Chen et al. (2019) we constructed the variable of working conditions by averaging two dummy variables. A primary dummy variable is assigned a value of one if the worker is older than 14 years, while a secondary dummy variable is assigned a value of one if the working hours are less than or equal to 40 hours per week for worker k during period t. WC is a function of Gender (dummy gender that equals to one if the worker is female and zero otherwise), j dummies for industry (Ind_{jkt}) and p dummies for marital status ($Married_{pkt}$) and i dummies for occupations (Ocp_{ikt}).Years of schooling (Edu_{kt}), $Age_{kt} + Age^2_{kt}$. The primary coefficient of focus is φ, which pertains to two interactive variables: the gender dummy and the year dummy. This coefficient φ indicates the alterations in working conditions for females following the adoption of the SDGs.

$$WC_{kt} == \alpha + \beta\ Gender_{kt} + \sum \gamma_p\ Married_{pkt} + \delta_1\ Age_{kt} + \delta_2 Age^2_{kt} + \delta_3 Edu_{kt} + \sum \theta_j\ Ind_{jkt} + \sum \mu_i\ Ocp_{jkt} + \sum \omega_s\ P_{skt} + \lambda \times Year + \varphi \times Year \times Gender + \omega_{kt} \quad (2)$$

To control provincial differences this study adds *s* province dummies (P_{skt}) in model 1 and the coefficient of interest φ remains unchanged.

The study also looked at Propensity Score Matching (PSM).

3.2 Propensity Score Matching Analysis

Propensity Score Matching (PSM) is a method for comparing the effects of treatment that takes into account differences in variables between groups that did and did not get treatment. One part of the method is to group units with similar propensity scores. These scores show how likely it is that a unit will get the treatment based on a set of observable variables. This method lowers selection bias by making sure that treated and untreated units are the same based on traits that can be seen. This lets you see causal effects more clearly (Rosenbaum & Rubin, 1983). Propensity Score Matching (PSM) balances these factors across groups, which is like random assignment. This makes observational research more believable (Austin, 2011).This study also used the Blinder-Oaxaca method to look at the differences in pay between men and women.

3.3 Blinder-Oaxaca decomposition

This study used the Blinder-Oaxaca method to look at differences in gender pay gaps. This method was first used by Blinder and Oaxaca in 1973 and again by Jann (2008). One way to compare how different groups, like race and gender, do in the job market is to use linear regression in a counterfactual framework to show the differences in average log earnings. This is called Blinder-Oaxaca decomposition. This method makes it easier to figure out how much of the overall salary gap can be explained by differences between men and women that are easy to see.(Menon & Van der Meulen Rodgers, 2009). This procedure divides the wage differential into two groups which are known as explained and unexplained parts. The explained part includes the different attributes of workers, like education and experience of work. The unexplained component serves to assess discrimination and encompasses the impact of group disparities in unobserved forecasts (Jann, 2008).

4. RESULTS AND DISCUSSION

We begin our results section by providing a snapshot of the descriptive statistics where we have provide a rough comparison of some of the key information across the two time periods we used in our empirical estimations.

Table 4.1: Descriptive statistics for female

	2010					2018				
	N	Mean	Std. Dev	Min	Max	N	Mean	Std. Dev	Min	Max
Monthly Wages	13,609	11593.2	10311.67	6	98001	14,184	25679.6	30303.0	8	2250000
Weekly Wages	13,609	2898.2	2577.91	1	24500	14,184	6419.8	7575.7	2	562500
Log weekly Wages	13,609	7.7000	.73396	0	10.106	14,184	8.5279	.68208	.69314	13.240
Real log weekly wages	13,609	11.3888	1.0855	0	14.948	14,184	7.6504	.61190	.62182	11.877
Working conditions	13,609	.59733	.19798	.5	1	14,184	.59310	.19464	.5	1

The descriptive statistics, presented in Table 4.1, for 2010 and 2018 indicate substantial alterations in earnings and working circumstances for women in Pakistan, underscoring the influence of the Sustainable Development Goals (SDGs) and general economic development throughout this timeframe. The average monthly pay has more than doubled, rising from PKR 11,593.2 in 2010 to PKR 25,679.6 in 2018. The significant increase is accompanied by a higher standard deviation in 2018 (PKR 30,303.0) compared to 2010 (PKR 10,311.67), suggesting increased salary dispersion and perhaps escalating income inequality among wage workers. Weekly salaries exhibit a notable escalation, increasing from an average of PKR 2,898.2 in 2010 to PKR 6,419.8 in 2018, while the maximum weekly income surged from PKR 24,500 to PKR 562,500. This indicates not just enhanced earning potential but also a greater variability in incomes among workers.

Analyzing log-transformed wages yields further insights on pay distribution. The average logarithmic weekly wage increased from 7.7 in 2010 to 8.5 in 2018, signifying a significant elevation in wage levels. The real log weekly wages decreased from 11.39 in 2010 to 7.65 in 2018, indicating that although nominal salaries have risen, inflation-adjusted wages have not maintained their value, hence questioning the actual buying power of these earnings over time. The data on working conditions remained largely steady, with the average score declining little from 0.597 in 2010 to 0.593 in 2018, indicating minor enhancements in workplace surroundings despite substantial salary gains.

These descriptive data establish a foundation for more rigorous empirical study, which helped in exploring the underlying causes influencing wage rise and the ramifications for women's empowerment. The study utilised Propensity Score Matching (PSM) and Oaxaca-Blinder decomposition to examine the impact of wage and working condition changes on gender equality and assess whether these changes have resulted in measurable enhancements in women's labour market outcomes following the implementation of the SDGs. The results of equation 1 are presented in Table 4.2.

Table 4.2: Working Conditions for Gender, Regression Results

	(1)	(2)	(3)	(4)
Gender	-0.343***	0.117***	0.118***	0.102***
	(0.00179)	(0.00284)	(0.00284)	(0.00283)
Edu	-0.00627***	0.00226***	0.00265***	0.00199***
	(0.000217)	(0.000288)	(0.000300)	(0.000297)
Age	0.0271***	0.000872**	0.000875**	0.00148***
	(0.000352)	(0.000439)	(0.000438)	(0.000432)
Age^2	-0.000323***	1.43e-05***	1.43e-05***	4.07e-06
	(4.47e-06)	(5.51e-06)	(5.50e-06)	(5.43e-06)
Year dummy	-0.00866***	0.0176***	0.0188***	0.0161***
	(0.00177)	(0.00231)	(0.00238)	(0.00234)
Year× Gender	**0.0461*** **	**0.0407*** **	**0.0385*** **	**0.0428*** **
	(0.00253)	**(0.00390)**	**(0.00391)**	**(0.00386)**
Industry dummies	No	Yes	Yes	Yes
Occupational dummies	NO	NO	Yes	Yes
Province dummies	No	NO	NO	Yes
Constant	0.0876***	0.524***	0.542***	0.491***
	(0.0133)	(0.0149)	(0.0152)	(0.0151)
Observations	255,696	128,232	128,232	128,232

Note: Standard errors are in the parentheses, *** p<0.01, ** p<0.05, * p<0.1

To check working conditions for female, we construct several models with different control variables in table 4.3. The results show that the working conditions for female improved. In all models our core variable of interest is the coefficient of interactive variables of two dummies (year, Female). This shows the improvement in the working index of women. The highest improvement is in column 1 of table 5 where we did not consider variations in industry and occupation. The lowest increase is in the last column of table 5 where we considered variations across different industries and occupations. So, this shows that the results are almost similar.

Table 4.3: Working Conditions for Gender (PSM Results)

	1	2	3	4
Gender	-0.631***	-0.631***	-0.608***	-0.584***
	(0.0314)	(0.0314)	(0.0312)	(0.0311)
Year dummy	-3.669***	-3.724***	-3.871***	-3.868***
	(0.00915)	(0.0104)	(0.0178)	(0.0177)
Year × Gender	**0.269*** **	**0.111*** **	**0.0641* **	**0.0683* **
	(0.0364)	**(0.0371)**	**(0.0366)**	**(0.0364)**
Constant	8.625***	8.910***	10.01***	10.12***
	(0.0962)	(0.0959)	(0.185)	(0.185)
Occupation dummies	NO	YES	YES	YES
Industry dummies	NO	NO	YES	YES
Province Indicator	NO	NO	NO	YES
Number of observations	29,607	29,607	29,607	29,607

Note: WC is dependent variable is all models, Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The findings for PSM analysis are presented in table 4.4. The coefficient of the interactive term between the two dummy variables (Year and female) is the primary focus of interest. The highest increase in women empowerment is in column 4 where the model includes occupational, industry and province dummies. The results of above tables show that the working conditions of women are improved, and these results are robust after inclusion of different variables as industries dummies, occupational dummies and provincial dummies.

Table 4.4: Regression and propensity score matching analysis: A comparison

Variables	REG (SE)	PSM (SE)
Gender	0.102***	-0.584***
	(0.00283)	(0.0311)
Year dummy	0.0161***	-3.868***
	(0.00234)	(0.0177)
Year × Gender	**0.0428*** **	**0.0683* **
	(0.00386)	**(0.0364)**

Note: WC is dependent in all models. Standard errors are presented in parentheses. Additional control variables encompass age, age squared, education, as well as dummy variables for marital status, industry, occupation, and province. p < .1; **p < .05; ***p < .01.

Table 4.5 displays the comparison of core variables between regression and propensity score matching analysis. The outcomes are not determined by sample selection bias. The results are further verified through propensity score matching analysis. The main coefficient of interest is the same in regression and propensity score matching analysis. The year dummy used is positive in regression while it is

negative in PSM but the interactive dummy of year and female remain positive in both models.

Therefore, it can be said that results on working conditions are not sensitive with inclusion of different variables. The working conditions for women also improves and remain robust after inclusion of different control variables. So, the study can safely conclude that SDGs adoption has a positive effect on women empowerment.

Table 4.5: Blinder-Oaxaca decomposition results for male-female wage gap for Pakistan

	2010	2018
Total M-F wage Gap	.71299	.36753
Explained	-.01993	.00618
Unexplained	.73293	.36134

Table 8 presents the Blinder-Oaxaca decomposition results male- female wage gap for Pakistan. This table displays that in 2010 Total M-F Wage Gap is (.71299) and Total M-F Wage Gap in 2018 is (.36753) in Pakistan. This indicates that the wage gap reduces in male to female wages. These results show that the empowerment of women is increased because wages are the main indicator of women's empowerment. The explained part in 2010 is (-.01993) and in 2018 (.00618) the explained wage gap increased means that women gain more education and experience as compared to 2010 which is a sign of increase in the empowerment of women. The unexplained part (.73293) in 2010 but it is (.36134). Means that 73% wage gap remain unexplained by education and experience in 2010 and 36% remained unexplained in 2018 which indicates the rise of education and experience.

5. CONCLUSION

The concept of women's empowerment is increasingly recognized as a global goal. The phrase "women empowerment" refers to granting women the autonomy to think and act independently, to exercise choice, and to recognize their potential as equal participants in society. The MDGs and the SDGs have placed a strong emphasis on gender equality and the empowerment of women and girls (SDG 5), alongside the promotion of productive employment and decent work for all genders to encourage inclusive and sustainable economic growth (SDG-8).

This study is an event analysis examining working conditions and the gender wage gap before and after the SDGs adoption in Pakistan. This study utilized data from the Pakistan Labor Force Survey, employing event methodology by treating year 2015 as the main event happening time (when formally SDGs were adopted

by Pakistan) and propensity score matching analysis. Initially developed by Rosenbaum and Rubin in 1983, Propensity Score Matching (PSM) has since been widely utilized in research to mitigate bias in observational studies. PSM assists in rectifying treatment selection bias in non-random observational research. This study demonstrates that, according to the findings, women's working conditions have improved post SDGs adoption compared to Pre-SDGs standards.

This study also employed the Oaxaca-Blinder approach to analyze the disparities in gender wage gaps (Blinder 1973; Oaxaca 1973). The Blinder-Oaxaca decomposition is a common way to see how different groups of people, like race and gender, do in the job market. It does this by using linear regression in a counterfactual framework to look at the differences in mean log salaries. This plan makes it clear how much of the overall salary gap is due to differences between men and women that are easy to see. The results show that these steps have given women more power, higher incomes, and better working conditions. In poor countries like Pakistan, the Sustainable Development Goals are good for women and help them reach gender equality. In conclusion, the SDGs have made things a lot better for women at work and have closed the gap between men and women in Pakistan. However, the path to full gender equality and empowerment is still difficult. The study's results show that since the Sustainable Development Goals were put into place, women's pay and working conditions have gotten better. It's clear that we need to keep working on these issues and make targeted policy changes because there are still pay gaps and unequal access to jobs. By fixing structural problems and making a place where men and women are equal, the Sustainable Development Goals give women a lot more power. Future research should look at how things like education, geographic inequality, and cultural norms affect women's job prospects and how these factors interact with each other.

5.1 Discussion and Policy Recommendations

The evidence from the real world shows that the implementation of the Sustainable Development Goals has improved women's working conditions and closed the gender wage gap in Pakistan. But the benefits haven't been shared fairly, and real wages are still not keeping up with inflation. To make the SDGs work better, the government needs to make it easier for women to get formal jobs by offering targeted skill development programs and setting strict minimum wage laws. Policies must also advocate for gender-sensitive workplace reforms, encompassing flexible work options, secure transportation, and childcare assistance. Future SDG reporting methods must integrate gender-disaggregated data to enhance policy formulation

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