

Impact of Education on the Decision-Making and Economic Activity of Women in Lampung Province (Period 2019–2023)

Puput Melati ^{1*}, Ida Budiarty ²

¹ Faculty of Economics and Business, Universitas Lampung, Indonesia 1; e-mail : mpuput141@gmail.com

² Faculty of Economics and Business, Universitas Lampung, Indonesia 2; e-mail : ida.budiarti@feb.unila.ac.id

* Corresponding Author : Puput Melati

Abstract: This study investigates the impact of education on the economic empowerment of women in Lampung Province during the 2019 to 2023 period. Despite advancements in educational access, significant gender disparities persist in Indonesia, particularly in Lampung, affecting women's participation in the workforce and political decision-making and contributing to wage gaps. This research aims to analyze how different levels of education influence women's political participation, their involvement in the labor force, and the proportion of their wages relative to men. Employing a quantitative descriptive approach with panel data regression analysis, the study utilizes secondary data from the Central Statistics Agency (BPS) and the National Labor Force Survey (SAKERNAS) across 15 regencies/cities in Lampung. Key findings reveal that while higher education (university level) significantly boosts women's labor force participation and wage proportion, secondary education (SMA) plays a more dominant role in fostering political engagement. Furthermore, the study confirms a persistent gender wage gap, with men's participation having a larger impact on wage proportion. These results underscore the critical role of education in women's empowerment and advocate for targeted policies to enhance educational access, promote equitable wages, and address systemic discrimination to achieve sustainable gender equality in Lampung.

Keywords: Education; Female Labor Force; Gender Wage Gap; Lampung Province; Political Participation

1. Introduction

Education is a key element in enhancing human resource quality and promoting inclusive economic growth. In terms of gender, education plays a strategic role in addressing the long-standing social and economic disparities experienced by women. In Lampung Province, although women's access to education has improved, significant gaps remain in political participation, labor force involvement, and wage equality between men and women.

This study aims to empirically examine the extent to which education particularly at the senior high school level (EDUC1) can drive women's economic empowerment by increasing their participation in politics, the labor market, and income equity. The findings reveal that senior high school education has a more significant positive impact than higher education. This may be because high school is sufficient to raise political awareness, while university-level students may face heavy academic demands or prevailing social norms that limit their engagement.

Despite national regulations mandating a 30% quota for women's representation in parliament, only about 20% of seats in Lampung's DPRD are currently held by women. In the labor sector, while human capital theory suggests that higher education increases access

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to formal, well-paying jobs, many educated women in Lampung still work in the informal sector such as agriculture, small-scale trade, and domestic work especially in rural areas.

Educational access also varies significantly between urban and rural areas. In 2023, the senior high school participation rate for women in Bandar Lampung was 45.6%, compared to only around 30% in districts like Way Kanan and Pesisir Barat. The overall female graduation rate in Lampung was 70%, lower than the national average of 80%, indicating continued barriers to quality education for women in disadvantaged regions.

The labor force participation gap also remains wide. Between 2019 and 2023, male participation remained above 85%, while female participation rose slightly from 52.96% to 55.47%, constrained by structural and cultural factors such as domestic responsibilities and limited formal job opportunities. Wage disparities persist as well, with women consistently earning around 20% less than men, highlighting the need for stronger policy enforcement to ensure equal pay for equal work.

Lampung was selected as the research site due to logistical feasibility, available and accessible data, and its representative gender inequality dynamics. The study's findings are expected to inform evidence-based policy recommendations that support Sustainable Development Goal 5 (SDG 5) and promote equitable economic empowerment for women across diverse socio-economic contexts.

2. Literature Review

2.1 Human Capital Theory

Human Capital Theory, emphasizes the importance of investing in non-physical assets such as education, health, and purchasing power to enhance individual productivity and drive economic growth. Higher education increases skills and knowledge, leading to better job opportunities and higher income (Becker, 2014). Good health supports work capacity and reduces absenteeism, while stronger purchasing power improves access to essential services like education and healthcare, reinforcing a cycle of human development (UNDP, 2020).

In the labor market, differences in productivity among individuals are often explained by variations in human capital accumulation. Workers with higher education and skills are more likely to access formal employment and occupy professional or managerial positions. Thus, improving the quality of education is key to promoting inclusive labor force participation. This theory also addresses wage inequality. Although it assumes wages reflect productivity, gender-based wage gaps persist even among individuals with similar qualifications. This suggests that structural and discriminatory factors, beyond human capital differences, contribute to persistent gender wage disparities (Becker, 1993; Blau, 2023).

2.2 Gender and Development Theory

The Gender and Development (GAD) approach emphasizes justice and gender equality in all aspects of development. It positions women not merely as beneficiaries, but as active

agents in economic, social, and political processes. According to March et al. (1999), gender analysis should be integrated into all stages of development planning and evaluation to ensure inclusivity and fairness. GAD encourages a structural understanding of power relations and aims to drive transformative social change.

This approach aligns with the Sustainable Development Goals (SDGs), particularly Goal 5, which promotes gender equality. UNDP (2020) and Jeevanasai et al. (2023) argue that sustainable development cannot be achieved without removing structural barriers faced by women. Therefore, women's participation in decision-making is essential.

To assess gender equality in development, two key indicators are used: the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM). GDI measures disparities in education, health, and income (Human Development Report, 1995; Wisnujati, 2020), while GEM evaluates women's participation in politics, leadership positions, and income distribution (Iskandar & Hamid, 2020).

The GAD framework is implemented through Gender Responsive Budgeting (GRB), which integrates gender perspectives into policy design and budgeting processes (Elson et al., 2018; Bardasi & Gornick, 2008). Examples include reproductive health funding and child care programs. WHO (2012) and the National Reproductive Health Strategy (2017) highlight the importance of investing in maternal health and family planning. Access to affordable childcare, as noted by Heckman (2006) and Chambers (2022), also enables women to participate more fully in the labor market.

3. Proposed Method

This research will employ a Descriptive means that the research does not aim to identify cause-and-effect relationships but rather explains the phenomena as they are for example, how many, how high, how large, and so on. Quantitative means that the data used are numerical and are typically analyzed using statistical methods.using panel data regression to analyze the impact of education participation in decision making and economic activities.

3.1 Data Collection Tehnique

This study uses secondary data obtained from official sources such as the National Labor Force Survey (SAKERNAS) from 2019 to 2023, covering districts and cities in Lampung Province. The data include variables such as women's political participation, female labor force participation rate, and the wage ratio between men and women. These datasets were downloaded from the official websites of the Central Bureau of Statistics (BPS) and relevant government agencies. All data were filtered for relevance and accuracy, focusing only on the most current and applicable information.

3.2 Data Analysis Technique

This research employs a descriptive quantitative approach. Descriptive means that the study does not seek to examine causal relationships but rather describes phenomena as they

are—such as how many, how high, or how large. Quantitative refers to the use of numerical data analyzed using statistical methods. To examine the effect of education on women's participation in decision-making and economic activities, the study applies panel data regression.

Panel data combines both cross-sectional and time-series data, which enriches the analysis by capturing variations over time and across regions. This method helps reduce bias and provides a more comprehensive view of the data. However, panel data analysis also has limitations, such as greater complexity, missing data issues, and the potential for violations of classical assumptions like autocorrelation and heteroscedasticity.

Model selection in panel data analysis involves several diagnostic tests. The Chow Test is used to decide between the Common Effect and Fixed Effect models; a significant result favors the Fixed Effect model. The Hausman Test helps determine whether the Fixed Effect or Random Effect model is more appropriate; a significant outcome suggests using the Fixed Effect model. Finally, the Lagrange Multiplier (LM) Test assesses whether the Random Effect model is preferred over the Common Effect model. These tests ensure that the chosen model is best suited to the characteristics of the panel data.

4. Proposed Regression Models

4.1 Model 1: Women's Political Participation

$$\text{PolPWit} = \beta_0 + \beta_1 (\text{Educit}) + \epsilon_{it}$$

The model includes several key variables used to examine the relationship between women's education and their political participation. PolP_Wit represents the political participation of women in regency or city i at year t . Two main independent variables are included to capture the education dimension: EDUC1it which indicates the percentage of women with a high school education, and EDUC2it which reflects the percentage of women who have attained higher education (beyond high school) in the same region and year. The model also includes β_0 as the intercept, and β_1 and β_2 as the coefficients that measure the effect of each level of education on political participation. Lastly, ϵ denotes the error term, capturing the influence of other unobserved factors not included in the model.

4.2 Model 2: Women's Labor Force Participation

This model investigates how educational attainment and wages affect women's participation in the labor force.

$$\text{LFP_Wit} = \beta_0 + \beta_1 (\text{Educit}) + \beta_2 (\text{Wagesit}) + \epsilon_{it}$$

The model is designed to analyze the factors influencing women's participation in the labor force across different regions and years. LFP_Wit represents the women's labor force participation rate in regency or city i at year t . The model includes two educational variables: EDUC1it which refers to the percentage of women with a high school education, and EDUC2it which indicates the percentage of women with higher education (above high

school) in the same regency or city and year. Another independent variable, Wages_{it}, captures the average wage level in each region and year. The parameter β_0 is the intercept, while β_1 , β_2 , and β_3 are the coefficients that reflect the impact of educational attainment and wage levels on women's labor force participation. Finally, ϵ_{it} is the error term, which accounts for other unobserved variables that may influence the outcome but are not included in the model.

4.3 Model 3: Gender Wage Proportion

This model analyzes the factors influencing the proportion of women's wages relative to men's, considering education, employment sectors, and labor force participation of both genders.

$$\text{PropWage}_{it} = \beta_0 + \beta_1 (\text{Educit}) + \beta_2 (\text{sector}_{it}) + \beta_3 (\text{Work_Lit}) + \beta_4 (\text{Work_Pit}) + \epsilon_{it}$$

The model analyzes the proportion of women's wages to men's wages (PropWage_{it}) in each regency or city (i) over time (t). Several explanatory variables are used in the analysis. These include the percentage of women who have completed high school (EDUC1_{it}) and the percentage of women who have attained higher education beyond high school (EDUC2_{it}). Additionally, the model incorporates the number of workers in three major economic sectors: the industrial sector, the commercial or trade sector, and the agricultural sector, denoted respectively as (Industrial sector_{it}), (Commercial Sector_{it}), and (Agricultural Sector_{it}). Labor force participation is represented by the number of working men (Work_L_{it}) and working women (Work_P_{it}) in each region and year. The model is structured with an intercept term (β_0) and coefficients (β_1 to β_7) that indicate the influence of each independent variable on the dependent variable. Lastly, the error term (ϵ_{it}) captures any unobserved factors affecting the outcome.

5. Results

Table 1 Chow Test Results Model

	Statistic	d.f	Prob.	selected model
Model 1				
Cross-section F	0.700991	(14,58)	0.7642	CEM
Cross-section Chi-square	11.724286	14	0.6284	
Model 2				
Cross-section F	1370.070452	(14,57)	0.6162	CEM
Cross-section Chi-square	436.619309	14	0.5708	
Model 3				
Cross-section F	1.064480	(14,53)	0.4092	CEM
Cross-section Chi-square	18.583821	14	0.1815	

Source: Eviews 10 (data processed), 2025

Table 2 Hausman Test Result Model

	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	Selected Model
Model 1				
Cross-section random	0.722061	2	0.6970	REM

Model 2				
Cross-section random	213.183696	3	0.6730	REM
Model 3				
Cross-section random	7.155864	7	0.4128	REM

Source: Eviews 10 (data processed), 2025

Table 3 Lagrange Multiplier Test Result Model

	Both	Selected Model
Model 1		
Breusch-Pagan	0.3060	CEM
Model 2		
Breusch-Pagan	0.3022	CEM
Model 3		
Breusch-Pagan	0.6701	CEM

Source: Eviews 10 (data processed), 2025

Table 4. Equality

Equality	Chow Test	Hausman test	Lagrange Multiplier Test	Selected models
1	CEM	REM	CEM	CEM
2	CEM	REM	CEM	CEM
3	CEM	REM	CEM	CEM

Source: Eviews 10 (data processed), 2025

From the Chow test, Hausman test, and Lagrange Multiplier test, the three selected equations use the Common Effect Model (CEM).

Table 5. Normality Test Results Model 1

Jarque-Bera	Prob.
1.017603	0.601216

Source: Eviews 10 (data processed), 2025

Table 6. Autocorrelation Test Results Model 1

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.652979	Prob. F(2,70)	0.1989
Obs*R-squared	3.382356	Prob. Chi-Square(2)	0.1843

Source: Eviews 10 (data processed), 2025

Table 7. Heteroscedasticity Test Results Model 1

F-statistic	1.026638	Prob. F(2,72)	0.3634
Obs*R-squared	2.079527	Prob. Chi-Square(2)	0.3535
Scaled explained SS	2.078809	Prob. Chi-Square(2)	0.3537

Based on the results of the classical assumption tests, Equation (1) satisfies all the necessary conditions, including the absence of autocorrelation and no indication of heteroscedasticity. Therefore, the regression model is considered valid and appropriate for analysis, producing unbiased, consistent, and efficient estimates.

$$\text{PolP_Wit} = 3,0608 + 0,5954 \text{ Educ1*} + 0,2466 \text{ Educ2*}$$

$$\text{t-Statistic} \quad (1,1006) + (8,8884) + (3,2811)$$

The intercept of 3.0608 indicates the predicted number of women participating in politics when both Educ1 and Educ2 are equal to constant. The coefficient for Educ1 is 0.5954, which means that a 1% increase in women with senior high school education is associated with an increase of approximately 0.5954 in the number of politically active women. However, the corresponding t-statistic of 1.1006 suggests that this effect is not statistically significant at the 10% level. In contrast, the coefficient for Educ2 is 0.2466 with a t-statistic of 3.2811, indicating a positive and statistically significant relationship at the 1% level between higher education and women's political participation. This means that a one-unit increase in either Educ1 or Educ2 corresponds to a one-percentage-point increase in the female population with that level of education, resulting in a change in the number of women participating in politics. For instance, a 10% increase in the proportion of women with higher education (Educ2) is predicted to increase the number of women involved in politics by approximately 2.466 individuals (0.2466×10). Assuming the total number of politically active women over the study period (2019–2023) is 694, this educational improvement could raise the number to around 696–697 participants. While this increase may appear small at the individual level, it is meaningful in aggregate terms, especially in shaping inclusive and gender-responsive development policies.

Table 8. Normality Test Results Model 2

Jarque-Bera	Prob.
0.641565	0.725581

Source: Eviews 10 (data processed), 2025

Table 9. Autocorrelation Test Results Model 2

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.295085	Prob. F(2,69)	0.2804
Obs*R-squared	2.713539	Prob. Chi-Square(2)	0.2575

Source: Eviews 10 (data processed), 2025

Table 10. Heteroscedasticity Test Results Model 2

F-statistic	1.459048	Prob. F(3,71)	0.2331
Obs*R-squared	4.355244	Prob. Chi-Square(3)	0.2256
Scaled explained SS	3.226229	Prob. Chi-Square(3)	0.3580

Source: Eviews 10 (data processed), 2025

Based on the results of the classical assumption tests, Equation (2) satisfies all the necessary conditions, including the absence of autocorrelation and no indication of heteroscedasticity. Therefore, the regression model is considered valid and appropriate for analysis, producing unbiased, consistent, and efficient estimates.

$$\text{LFP_Wit} = 37810,17 + 153,544 \text{ EDUC1} + 2804,408 \text{ EDUC2*} + 0.1316 \text{ WAGES*}$$

$$\text{t-Statistic } (1,8578)+ (0,2025)+ (6,2365)+ (12.3825)$$

The coefficient of the EDUC2 variable, which is 2804.408, indicates that a 1 percent increase in the proportion of women with higher education is estimated to increase the

number of women participating in the labor force by 2804.408 individuals, assuming all other variables remain constant. Given that the average proportion of women with higher education (EDUC2) during the 2019–2023 period is 39.019 percent, the total contribution of higher education to female labor force participation is estimated at approximately 109,470 individuals.

Furthermore, the WAGES variable has a coefficient of 0.1316, which suggests that for every IDR 1,000 increase in the average wage, the number of women participating in the labor force increases by 0.1316 individuals. With an average wage of IDR 28,474.50 thousand during the research period, the total contribution of wage increases to female labor force participation is estimated at approximately 3,747 individuals.

Table 11. Normality Test Results Model 3

Jarque-Bera	Prob.
1.069040	0.585950

Source: Eviews 10 (data processed), 2025

Table 12. Autocorrelation Test Results Model 3

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.960104	Prob. F(2,65)	0.3882
Obs*R-squared	2.152049	Prob. Chi-Square(2)	0.3409

Source: Eviews 10 (data processed), 2025

Table 13. Heteroscedasticity Test Results Model 3

F-statistic	0.225638	Prob. F(7,67)	0.9779
Obs*R-squared	1.727342	Prob. Chi-Square(7)	0.9734
Scaled explained SS	1.052843	Prob. Chi-Square(7)	0.9939

Source: Eviews 10 (data processed), 2025

Based on the results of the classical assumption tests, Equation (3) satisfies all the necessary conditions, including the absence of autocorrelation and no indication of heteroscedasticity. Therefore, the regression model is considered valid and appropriate for analysis, producing unbiased, consistent, and efficient estimates.

$$\begin{aligned} \text{PropWage} = & 0,1340 + 0,0134 \text{ Educ1*} + 0,0143 \text{ Educ2*} + 0,0097 \text{ Industrial sector} + \\ & \text{t-Statistic}(0,3180) + (12,5134) + (22,2945) + (1,0686) + \\ & 0,0028 \text{ Commercial sector} - 0,0049 \text{ Agricult sector} + 0,0204 \text{ Work_L*} + 0,0092 \\ & \text{Work_P*} \\ & (0,5159) - (0,7211) + (21,0181) + (17,0605) \end{aligned}$$

EDUC1, which is 0.0134, indicates that every 1 percent increase in the proportion of women with a high school education is associated with an increase in PropWage by 0.0134, assuming all other variables remain constant. Given the average value of EDUC1 during the 2019–2023 period was 36.37 percent, the total estimated contribution to PropWage is approximately 0.487. Similarly, the coefficient of EDUC2 is 0.0143, meaning that a 1 percent increase in the proportion of women with higher education is expected to increase PropWage

by 0.0143. With an average EDUC2 value of 39.02 percent, its overall contribution to PropWage is estimated at around 0.558.

The variable Work_L has a coefficient of 0.0204, which means each additional employed male is associated with an increase in PropWage by 0.0204. With the average number of employed men during the study period being 147,093 individuals, the total impact of Work_L on PropWage is approximately 3,001.7. Meanwhile, the Work_P variable has a coefficient of 0.0092, indicating that each additional employed woman contributes to an increase in PropWage by 0.0092. With an average of 121,167 women employed, the total effect of Work_P on PropWage is about 1,114.7.

6. Discussion

6.1 How significant is the influence of education level on women's political participation in Lampung Province?

Based on the analysis of the impact of education on women's political participation in Lampung Province from 2019 to 2023, education level has a significant effect. High school education (EDUC1) shows the strongest positive influence, with a coefficient of 0.595, indicating its crucial role in shaping women's political awareness and skills. Although higher education (EDUC2) also has a positive effect (coefficient 0.247), its influence is less dominant, possibly due to academic pressures or social norms that limit women's political engagement after university. To address this gap, political parties should prioritize recruiting highly educated women as legislative candidates, with the General Election Commission (KPU) serving as the administrative gatekeeper and the public as voters.

The low representation of women in the parliament, particularly in Lampung Province, has not yet reached the 30% target mandated by law. This low figure is influenced by various factors such as patriarchal culture, social stigma, lack of political support, and the low capacity and participation of women in the political sphere (Silvi et al., 2024). To address this issue, the Women's Caucus of the Parliament (KPP) in Lampung is working to strengthen its role and function through an institutional networking approach, which involves building partnerships with government agencies such as the Office of Women's Empowerment and Child Protection, the General Election Commission (KPU), the Damar NGO, the mass media, and academics. The goal is to promote policies that favor gender equality through legislative functions, budgeting, and oversight (Kurniawan et al . (2021).

Women's involvement in decision-making is a key indicator of sustainable development, often measured through their representation in parliament. Greater representation is expected to lead to more gender-responsive policies (Abdurrahman & Tusianti 2021). Previous studies (Lv & Yang, 2018; Al Faziah et al., 2020, 2022) support the idea that women's political participation positively impacts female labor force involvement. Women in policymaking tend to prioritize social issues, education, health, and social protection, which foster human capital

development and reduce inequality contributing to economic growth (Mishra et al., 2020; Dahlum et al., 2022; Mirziyoyeva & Salahodjaev, 2022). However, Altuzarra et al. (2021) found that in some Sub-Saharan developing countries, increased women's representation was negatively associated with economic growth.

6.2 Does education level and wages affect women's participation in the workforce?

Based on the analysis of the impact of education and wages on women's participation in the workforce in Lampung Province from 2019 to 2023, it can be concluded that higher education (EDUC2) is a highly significant driver of women's participation in the workforce. (EDUC1) was found to be statistically insignificant in promoting women's labor participation in the context of this study, implying that a high school qualification may no longer be sufficient to meet the increasingly complex demands of the labor market.

Additionally, wages also have a positive and highly significant influence on women's participation in the workforce, where each increase of Rp1.000 in average wages can increase women's participation by 0.1317 individuals per district/city. These findings emphasize that economic incentives in the form of higher wages are a strong motivator for women to enter or remain in the labor market, although non-wage factors such as childcare costs also play an important role.

The increase in wages has not yet had a negative impact, which differs from Alfred Marshall's (1890) theory that measures how responsive the quantity of labor demanded by companies is to changes in wages. If labor demand is elastic, then an increase in wages will lead to a significant decrease in the number of workers employed. Conversely, if demand is inelastic, wage changes will not significantly affect the number of workers demanded.

Lampung Province, the average Female Labor Force Participation Rate (LFP_W) is concentrated in the informal labor market. This trend is influenced by several structural and social factors that limit women's access to formal employment. Many women in Lampung are engaged in sectors such as subsistence agriculture, small-scale trade, and domestic services areas typically classified as informal employment. Soputan & Kerebunu (2020) showed that women with longer education (including upper secondary education) are actually more likely to choose the informal sector, especially when living in rural areas or being married.

This condition also reflects limited access to education, vocational training, and a lack of labor policies that support women's participation in the formal sector. Additionally, the heavier domestic responsibilities borne by women often lead them to choose informal jobs due to the flexibility they offer. According to Rogayah (2021), there is a strong positive relationship between wages and the Female Labor Force Participation Rate (FLFPR). Higher wages serve as a substantial economic incentive for women to enter or remain in the labor market, enabling them to contribute more significantly to household income and enhance their economic independence. The level of higher education (EDUC2) also has a positive and highly significant impact, even greater than that of secondary education (EDUC1). These

qualities make individuals more productive and valuable to employers, thus entitling them to higher compensation. While secondary education is important as a foundation, it may not be sufficient to create significant skill differentiation in a competitive labor market. Jobs that require a college degree generally come with greater responsibilities, higher task complexity, and are often in managerial or specialist positions. These positions are inherently valued more highly in the market, given the increasingly complex and knowledge-based demands of the modern labor market.

6.3 Does education level and type of occupation significantly affect the wage ratio of women to men?

Based on the analysis of the impact of education, sector of employment, and gender participation on the wage ratio in Lampung Province from 2019 to 2023, several conclusions can be drawn. First, education, both at the high school level (EDUC1) and higher education level (EDUC2), has a positive and highly significant influence on the wage ratio of women. Higher education even shows a greater impact compared to high school, emphasizing that an increase in educational attainment contributes to enhancing women's bargaining power and income. Second, the sector of employment (industry, trade, agriculture) does not show a significant influence on the wage ratio of women. This indicates that women in these sectors may face challenges in obtaining equal wages, often due to gender-based job segregation, limited access to resources, and jobs that are undervalued monetarily.

Third, male participation in the labor force (Work_L) shows a significant positive influence on the wage ratio, confirming the existence of gender-based wage discrimination where men tend to receive higher wages. Although female participation in the labor force (Work_P) also contributes positively to the wage ratio, the magnitude of its coefficient is smaller compared to that of men, indicating that women still face challenges in obtaining equal compensation. Overall, the gender wage gap is a real issue rooted in systemic discrimination, rather than merely differences in productivity.

This research, along with Lusiyanti (2020), highlights the gender wage gap, showing that while women's participation positively impacts wages, they still encounter barriers, evidenced by lower coefficients compared to men. Lusiyanti attributes this gap to systemic discrimination rooted in patriarchal culture and negative stereotypes, rather than just productivity differences. Together, these studies emphasize that the gender wage gap is a significant issue driven by discrimination, making it essential to address this for achieving wage equality and maximizing women's economic potential. Additionally, (Sukoco & Prameswari, 2017) notes that despite education and experience contributing to wages, the gender wage gap persists in the formal sector, with part of it unexplained by productivity differences, further supporting the existence of discrimination in Indonesia's labor market.

8. Conclusions

This study concludes that education plays a critical role in promoting women's economic empowerment in Lampung Province during the 2019–2023 period. The findings indicate that educational attainment directly influences three main aspects: women's political participation, involvement in the labor force, and the proportion of women's wages relative to men's.

First, secondary education (high school level) shows a strong correlation with increased political participation among women. This suggests that women with secondary education are more likely to be politically aware and confident in engaging with the political process, both as active voters and potential representatives. Such participation is essential for shaping public policies that are more responsive to women's needs.

Second, higher education (university level) significantly contributes to increasing women's participation in the labor force. Educated women have better access to formal employment, greater job opportunities, and tend to be more economically independent. This, in turn, enhances their contributions to household and community economic development.

Third, while higher education also improves the wage proportion of women relative to men, gender-based wage inequality remains persistent. Male participation still has a stronger impact on overall income levels. Furthermore, employment sectors such as agriculture, trade, and industry do not show a significant influence on improving women's wage proportion, indicating that structural discrimination in the labor market continues to be a major challenge.

Overall, the study reinforces that education is a key instrument for empowering women both economically and politically. However, education alone is not sufficient without supporting policies that promote wage equality, fair labor access, and greater representation of women in decision-making processes. Therefore, a synergy between improving women's educational quality and implementing gender-sensitive development policies is essential to achieve sustainable and meaningful empowerment of women in Lampung Province.

9. Suggestions

Based on the results of this study, it is recommended that the government, both at regional and national levels, expand access to quality education for women especially in rural and underdeveloped areas to enhance their participation in the labor market and political sphere. Gender-responsive policies must also be strengthened to promote equal wages and improve women's access to strategic and higher-paying job sectors, such as professional and managerial positions. In addition, programs aimed at increasing women's political literacy and leadership capacity should be implemented consistently through training, awareness campaigns, and mentoring. These integrated efforts across education, employment, and political inclusion are essential to ensure that women's economic empowerment in Lampung Province is achieved in a more comprehensive, equitable, and sustainable way.

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