

The Impact of Wages and Education on Female Labour Market Outcomes in Sri Lanka

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Introduction

Female participation in the labour market plays a vital role in fostering inclusive economic growth, particularly in developing countries like Sri Lanka. Despite significant improvements in women's education and policy efforts to promote gender equality, many Sri Lankan women still struggle to secure stable and meaningful employment. To design effective gender and labour policies, it is crucial to understand how factors like wages and education influence women's labour market outcomes.

Objectives

This study aims to analyze the impact of female wages, secondary school enrollment, and economic growth and labour force participation on female unemployment. Hence, the main objective of this study is to examine how Sri Lankan women's labour market outcomes are impacted by the education and earnings of women in Sri Lanka.

Methodology

This study is guided by the Human Capital Theory, which suggests that education increases productivity and improves labour market outcomes such as employment and wages.

This study uses macroeconomic data from 1990 to 2023 to apply in time series econometric techniques. The variables adapted to this study were Female Secondary School Enrollment (SSE), Female Wages and Salaries (FWS), Female Labour Force Participation (LFP), Gross Domestic Product

(GDP), and Female Unemployment Rate (FUR). The data were collected from the World Bank Open Data portal.

Both the short-term and long-term dynamics between the variables are evaluated using the Autoregressive Distributed Lag (ARDL) Bounds testing technique. The model used in this study is specified as follows:

$$FUR_t = \beta_1 + \beta_1 SSE_t + \beta_2 FWS_t + \beta_3 FLP_t + \beta_t GDP_t + u_t$$

A number of diagnostic tests were carried out to guarantee the model's validity and dependability. The Bounds test method was used to determine the cointegrating relationship between the variables.

Results and Discussions

The Augmented Dickey-Fuller (ADF) unit root test suggested that variables are stationary in mixed order; I(0) and I(1). AIC test advocate to use 3 lag for ARDL model. Diagnostic test reveals that there is heteroskedasticity, serial correlation, and specification error of the selected model (see Table 1). CUSUM test depict that the selected ARDL model also stable (see Fig 1).

Table 1: Results of Diagnostic Tests

Test Name	Probability	Conclusion
Heteroskedasticity Test (BPG-Test)	0.7724	No heteroskedasticity
Serial Correlation Test (BG Test)	0.0853	No serial correlation
Normality Test (Jarque-Bera)	0.6389	Residuals are normally distributed
Ramsey RESET Test (Functional Form)	0.7000	Model is correctly specified
CUSUM Stability Test	Within 5% bounds	Model is stable

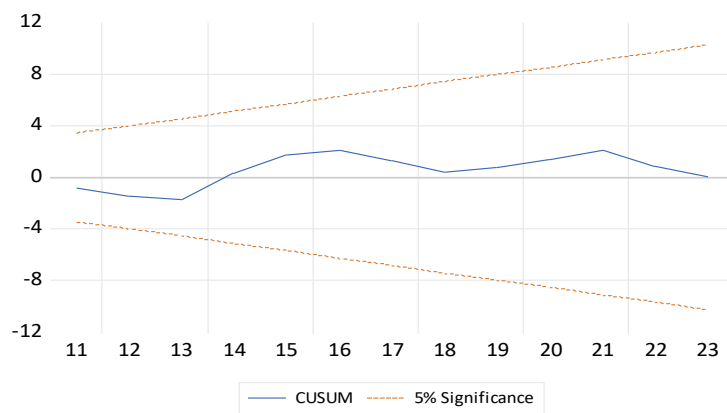


Fig 1: Result of CUSUM Test

The ARDL Bounds test showed that there is a cointegrating relationship between the selected variables which implies that there exist a long run relationship between the variables.

The long-run estimates revealed that only female wages and salaries (FWS) had a statistically significant effect on female unemployment. The positive coefficient suggests that higher wages are associated with rising female unemployment. This result is contradicts with the Human Capital Theory, which reflects structural issues in the Sri Lankan labour market. Where increases in labour costs may discourage employers from hiring women, particularly in low-skill or informal sectors. By contrast, education, labour force participation, and GDP did not exhibit statistically significant long-run impacts on female unemployment, indicating that these factors alone are insufficient to reduce unemployment unless accompanied by structural reforms.

Table 2: Long-Run (Levels Equation) Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FWS	0.911239	0.321513	2.834223	0.0141**
GDP	0.085322	0.311741	0.273696	0.7886
LFP	-1.520613	0.995162	-1.528006	0.1505
SSE	-0.476687	0.396382	-1.202596	0.2506
C	51.00016	46.30075	1.101498	0.2907

Note: *, ** and *** represents the variables are statistically significant at 10%, 5% and 1% level of significant respectively

The short-run results provide further insight into the adjustment process. The error correction term was negative (-0.379) and highly significant, which confirm that approximately 38% of disequilibrium is corrected each year and that the system converges back to long-run stability after a shock. In the short run, GDP showed a strong and consistently negative effect on female unemployment across both current and lagged values, highlighting that economic growth generates immediate employment opportunities for women. Conversely, both secondary school enrollment and female labour force participation had positive and significant effects. The significance of SSE and its lags suggests that when more women pursue education, unemployment rises in the short term because the labour market cannot absorb them immediately. Similarly, the positive lagged effects of LFP highlight a mismatch between women labour demand and supply as more women join the labour market. Unemployment rises temporarily until the economy adjusts and new opportunities are created.

Table 3: Short-Run (ECM Regression) Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FUR(-1))	0.123788	0.115646	1.070402	0.3039
D(FUR(-2))	0.369975	0.124239	2.977923	0.0107*
D(GDP)	-0.101277	0.035382	-2.862352	0.0136*
D(GDP(-1))	-0.294141	0.045580	-6.453321	0.0000*
D(GDP(-2))	-0.168738	0.049474	-3.410641	0.0034*
D(LFP)	0.014327	0.104698	0.136843	0.8933
D(LFP(-1))	0.710327	0.144792	4.905841	0.0001*
D(LFP(-2))	0.527712	0.113856	4.634893	0.0002*
D(SSE)	0.564751	0.109853	5.140947	0.0001*
D(SSE(-1))	0.398758	0.108453	3.678259	0.0020*
D(SSE(-2))	0.252318	0.118148	2.135609	0.0523
CointEq(-1)	-0.379056	0.054355	-6.973733	0.0000*

Conclusion and Policy Recommendations

The findings of this study highlight that economic growth plays a supportive role in reducing unemployment, the benefits of education and rising participation can only be fully realized if the economy creates enough suitable jobs for women. The positive long-run relationship between wages

and unemployment further underlines the need for balanced wage and labour policies that protect women's earnings while avoiding disincentives for employers. These results highlight the importance of complementing human capital improvements with institutional reforms, and job creation strategies tailored for female workers in Sri Lanka.

This study suggests that there is a need to create more decent jobs for women. In this regard, the government can promote female employment in sectors like IT, tourism, textile, health, and education, where women already work but need better pay and security. Further, vocational and job-linked training programmes are needed for women to smoothly transit after school into the labour market. Wages policies also should be balanced to encourage fair pay. There should be campaigns and community programmes to change traditional ideas about working women through overcome cultural and social rules. The government can also establish better data bank to make smarter policies on gender balance.

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