SRI LANKA'S LOGISTICS AND MARITIME INDUSTRY: THE GENDER WAGE INEQUALITY IN SRI LANKA'S LOGISTICS AND MARITIME INDUSTRY

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ABSTRACT-This study investigates the impact of gender in determining the earnings in Sri Lanka's logistics and maritime industry, a crucial sector for the country's economy. The importance of this research is underscored by the logistics and maritime industry's significant role in economic development and the broader context of gender wage disparities. Previous research in Sri Lanka has shown a persistent gender pay gap in the labor force, even though females often have higher educational achievements. However, no specific studies have addressed the logistics and maritime sectors in Sri Lanka, though a few have examined the overall labor force. This study fills that gap by employing Ordinary Least Squares (OLS) regression to identify wage determinants and the Oaxaca-Blinder decomposition method to analyze the wage gap. Using data from 400 participants with a 97.5 percent response rate, the OLS results reveal that being female is associated with earning approximately 0.16 log points less per hour than a male counterpart. Decomposition analysis further shows that out of the overall wage difference of 0.3624 log points, 53.3 percent can be explained by productive characteristics such as education and experience, while 46.7 percent remains unexplained, suggesting potential gender-based discrimination. The fact that the explained portion of the wage gap is significantly higher indicates that productive characteristics have a more substantial impact on wage disparities.

Keywords: Decomposition; Sri Lankan Labour Market; Logistics and Maritime industry; Wage Disparities

1. INTRODUCTION

The logistics and maritime sector plays a crucial role in Sri Lanka's economy, benefiting from its strategic location along global trade routes. Despite its importance, this sector faces considerable gender income inequality issues. The gender pay gap, which denotes the difference in earnings between men and women, is influenced by factors such as occupational segregation, educational attainment, work experience, and potential discriminatory practices (Seneviratne, 2020). The logistics sector is part of the industrial sector within Sri Lanka's labor market. Cultural norms and lower female labor force participation rates exacerbate these disparities, despite women often outperforming men in education. Despite extensive literature on gender wage disparities in Sri Lanka, there remains a notable research gap specific to the logistics and maritime industry. Few studies delve deeply into industry-level data and the unique challenges faced by women in these sectors (Fatima, 2013). This gap calls for focused research that explores factors contributing to wage differentials within these critical industries, aiming to inform policies and practices that promote gender equality (Solotaroff et al., 2017).

Research objectives
1. Investigate the existence and extent of the gender wage gap within the industry.

2. Identify and analyze factors influencing hourly wages.

3. Measure the gender wage gap for male and female employees.

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4. Use the Oaxaca-Blinder method to explore explained and unexplained factors contributing to wage disparities.

5. Evaluate the overall impact of these factors on the gender wage gap.

2. MATERIALS AND METHODS

This section details a quantitative research approach examining the gender wage gap in Sri Lanka's logistics and maritime industry. Data is collected via an online survey of 400 employees in Colombo, capturing demographics, education, work experience, job roles, and wages. Econometric methods like OLS regression and Oaxaca-Blinder decomposition are applied for thorough analysis. Snowball sampling ensures sample diversity.

Most studies conducted by researchers on wage differentials are based on the human capital theory, developed by Becker and Mincer. Becker (1964) demonstrated that education and training are investments to increase productivity, which subsequently result in higher earnings.This study uses Ordinary Least Squares (OLS) regression to identify factors influencing hourly wages,

$$lny = \beta_0 + \beta_1 S + \beta_2 Exp + \beta_3 Marital + \beta_4 Ethnicity + \beta_5 Gender + \beta_6 ProfQual +$$

$$\beta_7 BusArea + \beta_8 VocTrain + \beta_9 EngLit + \beta_{10} ITQual + \beta_{11} JobNature + \epsilon$$

The OLS regression model utilizes Hourly Wage as the dependent variable. Independent variables encompassing Education Level, Experience Level, Marital Status, Ethnicity, Gender, Occupational-Related Professional Qualification, Specified Business Area, Vocational Training, English Literacy, IT Qualifications, and Job Nature are incorporated. To enable in-depth analysis, all independent variables are dummy coded.

The study employs the Oaxaca-Blinder decomposition method using a relaxed pooling approach suggested by previous literature, to analyze the gender wage gap. Using equation below, separate wage regressions are conducted for males and females applying the Ordinary Least Square method. Based on that, expected gender income gaps are estimated and that can be decomposed into two components,

$$\bar{w}_m - \bar{w}_f = \overline{X'}_m \hat{\beta}_m + \overline{X'}_f \hat{\beta}_f = (\bar{X}_m - X)'\hat{\beta}_m + \overline{X'}_f(\hat{\beta}_m - \hat{\beta}_f)$$

where $\hat{\beta}_j$ and $\bar{X}_{ij}$ are the estimated value of β_j and expected X_{ij} respectively. Further, $\bar{w}_m - \bar{w}_f$ is the gap of mean log hourly wage between males and females. In equation , $(\bar{X}_m - X)'\hat{\beta}_m$ indicates the endowment effect, the explained part of the income difference at mean which is weighted by the male coefficients. $\overline{X'}_f(\hat{\beta}_m - \hat{\beta}_f)$ is the unexplained segment of the income difference; the structural effect. Oaxaca (1973) called this unexplained segment as labor market discrimination.

3. RESULTS AND DISCUSSION

3.1 OLS Regression Results

The OLS regression results align with the human capital theory, showing that education, experience, and other productive characteristics significantly impact hourly wages. Higher academic credentials, professional qualifications, and English literacy are associated with increased wages, while temporary job nature negatively affects wages. Gender shows a direct negative gap, with female employees earning approximately 16.9 percent less than their male counterparts. Social identity elements, IT qualifications, vocational training, and specific business sectors do not significantly affect hourly wages.

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3.2 OAXACA-BLINDER DECOMPOSITION RESULTS

LHWAGE	Coef.	Robust Std. Err.	Z	P>z
Difference	0.3624	0.0269	13.48	0.0000
Explained	0.1931	0.0239	8.07	0.0000
Unexplained	0.1693	0.0219	7.73	0.0000

Table 1: Oaxaca Blinder Decomposition

Source: Author Compilation

The gender wage gap in Sri Lanka's logistics and maritime industry amounts to 0.3624 units per hour, with 53.3 percent (0.1931 units) explained by differences in personal and career-related factors. The remaining 46.7% (0.1693 units) may stem from gender-based discrimination, highlighting opportunities for reducing disparities through educational and career initiatives.

4. CONCLUSION

This study reveals a substantial gender wage gap in Sri Lanka's logistics and maritime industry, with men earning significantly more than women. While education, job role, and English proficiency contribute to this disparity, a significant portion remains unexplained, potentially indicative of underlying gender bias. Policy interventions aimed at enhancing education, fostering professional development, and implementing equitable workplace practices are recommended to mitigate this gap. Future research should delve deeper into the unexplained factors to inform more targeted policy solutions.

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