

## **Statistical analysis on factors affecting income-inequality in Sri Lankan labour force**

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Studying inequality has become a crucial fact as inequality has increased considerably. The meaning of inequality refers to the difference in social status, wealth or opportunity between people or groups. There are many types of inequalities such as Income and Wealth, Cultural, Political, Racial and Gender inequality. Many studies reveal that Sri Lanka provides a huge downturn due to the inequalities exist among the people. It affects the living standards of the majority of the people living in Sri Lanka. Consequently, the development of the country is interrupted. In this study, the factors affecting on Income Inequality are analyzed. The data was collected from the Labour Force Survey 2016, conducted by the Department of Census and Statistics. Labour force in Sri Lanka is employed in different professions or occupations in various industries or sectors. The main root of Income of Sri Lankan employed population is the monthly salary. The possible factors affecting on the income inequality obtained through the literature are Age, Occupation type, Gender, English Literacy, Sinhala Literacy, Level of Education and the working sector of the employee. The multiple linear regression modeling approach has been used to analyze the impact of the factors on the monthly gross salary of Sri Lankan employees. Furthermore, the sequential methods, (forward selection method, backward selection method and stepwise regression) are used to identify the best model by means of the  $p$ -value, adjusted R-squared and Mean square error. Results of this research reveal that all the variables Age, Occupation type, Gender of the employee, English Literacy, Sinhala Literacy, Level of Education and the working sector of the employee significantly affect the monthly gross salary of an employee. Results obtained from this study are useful for prediction and future developments.

**Keywords:** multiple linear regression, income inequality, stepwise regression and salary

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