

Explanatory Analysis: Factors that contribute to the happiness of women, who lead households in Jaffna District

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In Sri Lanka, a family is headed by both husband and wife. However, there could be cases where the family is headed by wife. It is mandatory to be happy and be satisfied in his/her own life to lead a family; especially for a wife who leads the family on herself. The main objective of this study is to examine the association between independent and response (happiness) variables in woman headed households (WHH) in Jaffna District. Demographics, health related, economic, and sociological variables were considered as independent variables in this study. A sample of 420 women were selected by using stratified sampling technique. Data were collected through a self-administrated questionnaire. Methods of feature selection such as Lasso regression, forward selection and backward elimination were used to fit statistical models and the best model was chosen based on the minimum Root Mean Square Error (RMSE) values and then diagnostics tests were performed for the best model.

Finding indicated that happiness increased with the family's income level and monthly food expense. However, health expense negatively related with the happiness of women. Women who live in 'Happy' and 'Neutral' surrounding are higher than 'Unhappy'. Based on the selected final feature selection model, it was found that area of living, children's education level, children's minimum age, breadwinner who give support to family, health expenditure, assistance from government, way of getting water, ability to manage home & work and happiness of surrounding environment are associated with the happiness of women in WHHs in Jaffna District.

Key words: *Women Headed Households, Jaffna district, happiness, Lasso regression*

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