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## **Modeling quality of life of final year students in university of ruhuna using multivariate statistical techniques**

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Quality of Life (QoL) is defined by the World Health Organization (WHO) as a person's perception of their condition in life in relation to the way of life and value systems in which they live, as well as their goals, wants, standards, and worries. University students are a distinct demographic in that their issues, burdens, and concerns differ from those of other groups of people. They are subjected to a variety of stress, including academic pressure, social challenges, and financial difficulties, etc. This study tries to analyze factors affecting university students' QoL in terms of satisfaction with academic aspects, social aspects, and facilities. Data were obtained from the self-administrative questionnaire that was distributed randomly to 200 final year students from four faculties within the University of Ruhuna. The four faculties are chosen using simple random sampling technique. They are Faculty of Science, Medicine, Fisheries and Marine Sciences and Technology, and the Faculty of Humanities and Social Sciences. This study employed a stratified sampling technique to choose respondents from faculties. Data were analyzed using R statistical package for preliminary analysis, factor analysis, and Structural Equation Modeling. It was found that 62 % of the respondents are female and 38% male. According to this study, University of Ruhuna students' quality of life is highly impacted by their satisfaction with the level of facility satisfaction and academic, and social aspects respectively.

**Keywords:** Factor analysis, Quality of life, Structural equation model, University students

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