USE OF STATISTICAL MODELING AND PREDICTING THE EMPLOYEE SATISFACTION OF ACADEMICS IN SRI LANKA: A CASE STUDY

D. P. N. P. Dias

158375L

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Department of Mathematics

University of Moratuwa
Sri Lanka

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DECLARATION

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Abstract

This study has mainly focused on statistical modelling in predicting employee satisfaction. Different regression techniques have been applied to examine the factors affecting employee satisfaction of the academics in Sri Lankan universities. Superior behavior, co-worker behavior, job itself, physical conditions, teaching and research, administrative duties, academic environment and freedom were the main factors collected from the questionnaire and except that demographic factors were also collected. Employee satisfaction is measured with six questions in the questionnaire and all the measured variables were categorical variables. Different regression techniques such as ordinal regression, multinomial logistic regression and categorical regression were used to test for the relationship between key factors and employee satisfaction. Three regression techniques resulted in 3 different models and the sector was significant in all three models. Analysis of demographic factors with employee satisfaction resulted in a model with only two factors sector and salary from ordinal regression. Multinomial logistic regression resulted in 3 factors sector, salary and gender. Categorical regression resulted in a model with 3 factors gender, sector and distance. Before analyzing the factors, in the questionnaire, reliability analysis was done with chronbach's alpha and in order to make some of the factors consistent, recoding was done for some questions. Main factors were analyzed with the 3 regression techniques and resulted in 4 models. By comparing the models with R-squared values and goodness-of-fit statistics, the appropriate model was obtained from ordinal regression. This study revealed that, co-workers' behavior, physical conditions, Teaching and Research, Administrative duties and academic environment were not more significant factors in predicting employee satisfaction of academics in Sri Lanka.

Key Words: Employee Satisfaction, Ordinal Regression, Multinomial Logistic Regression, Categorical Regression

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List of Abbreviations

HR – Human Resource

ANOVA – Analysis of Variance

MANOVA – Multivariate Analysis of Variance

CATREG – Categorical Regression

UK – United Kingdom

UGC - University Grants Commission

KMO Test - Kaiser-Meyer-Olkin Test

AIC - Akaike Information Criterion

BIC – Bayesian Information Criterion

IT – Information Technolog

(-2LL) – (-2 Log Likelihood)