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DETERMINING THE EFFICIENCY OF FACULTIES IN NORTH WEST UNIVERSITY USING DATA ENVELOPMENT ANALYSIS

Abstract:

This paper uses data envelopment analysis (DEA) in order to determine the efficiency of five faculties of the North West University in South Africa. The study uses two input variables (credit hours and number of academic staff members) as well as two output variables (number of graduating students and research output). Two models, constant returns to scale (CRS) and variable returns to scale (VRS) are used to estimate the efficiency scores. The results reveal that four out of the five faculties are technically efficient according to the VRS approach and only three faculties are efficient when the CRS model is applied.

Keywords:

efficiency; data envelopment analysis; constant returns to scale (CRS); variable returns to scale (VRS).

JEL Classification: C44