ADOPTING SUPER-EFFICIENCY AND TOBIT MODEL ON ANALYZING THE EFFICIENCY OF TEACHER'S COLLEGES IN THAILAND

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ABSTRACT

Teacher's colleges located throughout Thailand have taken many inputs and outputs to achieve high academic performance. Since the teacher's colleges have a variety of educational production, their efficiency is diversely different. Super-efficiency data envelopment analysis (SE-DEA) has a potential to assess technical efficiency of firms and Tobit regression specially uses to analyze an uncensored score. Therefore, this study adopted two-step approaches to evaluate the technical efficiency of 40 teacher's colleges which collected cross-section data in 2011 from Office of the Higher Education Commission in Thailand. The super-efficiency DEA was initially assessed the efficient score followed by the Tobit regression employed to determine what factors affect the technical efficiency. Interestingly, number of graduate students, research and development, and intensity funds were considered into the Tobit regression. The results showed that the 40 colleges perform in technical efficiency differently. Moreover, those factors illustrate a different significance at various confidence levels.

Key Words: Data envelopment analysis (DEA), super-efficiency, teacher's colleges, technical efficiency, Tobit regression.