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Structural Equation Modeling Exploration for the Multiple College Admission Criteria in Taiwan

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Abstract: When the Taiwan Ministry of Education implemented a new university multiple entrance policy in 2002, most colleges and universities still use testing scores as mainly admission criteria. With forthcoming 12 basic-year education curriculum, the Ministry of Education provides a new college admission policy, which will be implemented in 2021. The new college admission policy will highlight the importance of holistic education by more emphases on the learning process of senior high school, except only on the outcome of academic testing. However, the development of college admission criteria doesn't have a thoughtful process. Universities and colleges don't have an idea about how to make suitable multi-admission criteria. Although there are lots of studies in other countries which have implemented multi-college admission criteria for years, these studies still cannot represent Taiwanese students. Also, these studies are limited without the comparison of two different academic fields. Therefore, this study investigated multiple admission criteria and its relationship with college success. This study analyzed the Taiwan Higher Education Database with 12,747 samples from 156 universities and tested a conceptual framework that examines factors by structural equation model (SEM). The conceptual framework of this study was adapted from Pascarella's general causal model and focused on how different admission criteria predict students' college success. It discussed the relationship between admission criteria and college success, also the relationship how motivation (one of admission standard) influence college success through engagement behaviors of student effort and interactions with agents of socialization. After processing missing value, reliability and validity analysis, the study found three indicators can significantly predict students' college success which was defined as average grade of last semester. These three indicators are the Chinese language scores at college entrance exam, high school class rank, and quality of student academic engagement. In addition, motivation can significantly predict quality of student academic engagement and interactions with agents of socialization. However, the multi-group SEM analysis showed that there is no difference to predict college success between the students from liberal arts and science. Finally, this study provided some suggestions for universities and colleges to develop multiadmission criteria through the empirical research of Taiwanese higher education students.

Keywords: college admission, admission criteria, structural equation modeling, higher education, education policy

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