THE IMPACT OF NTREPRENEURSHIP EDUCATION ON ENTREPRENEURIAL INTENTION OF ENGINEERING STUDENTS

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The Impact of Entrepreneurship Education on Entrepreneurial Intention of Engineering Students
創業教育對工程學生創業意圖的影響

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Abstract

Entrepreneurship education has become very popular nowadays both in management schools and engineering schools. However, the impact of entrepreneurship education on entrepreneurial intention of engineering students remains in question. What is the value of entrepreneurship education? What should be taught and how to teach the subject? In order to develop guidelines for entrepreneurship education for engineering students, this thesis aims to propose an entrepreneurship education model by empirically investigating how specific education components influence the entrepreneurial intention of engineering students.

To achieve the aim, four objectives need to be addressed. The *first* one is to identify a theoretical approach and develop a conceptual model for studying the impact of entrepreneurship education on entrepreneurial intention of engineering students. The *second* one is to test the effectiveness of entrepreneurship education in terms of entrepreneurial intention. The *third* one is to empirically test the influence of education components on entrepreneurial intention. Finally, the *fourth* one is to develop an entrepreneurship education model and provide guidelines for entrepreneurship education.

An extensive review on entrepreneurship and education was conducted in order to achieve the first objective. The theory of planned behavior (TPB) was found appropriate to be the theoretical basis of entrepreneurship education because it provides most information about the formation process of entrepreneurial intention at both personal and social level. Further, entrepreneurship is a planned behavior that a new business is seldom created suddenly without planning, and thus it is best predicted by entrepreneurial intention. The second objective was reached by a comparison study between entrepreneurship students and control group students. The third objective was achieved through testing the effect of specific education components on entrepreneurial intention. The fourth objective was achieved by exploring the results from the theoretical and practical perspectives.

Based on the TPB and elaboration of entrepreneurship education into four components, a conceptual model linking entrepreneurship education and entrepreneurial intention was proposed. Ten sets of hypotheses were formulated in the

conceptual model. A survey of 411 engineering students was conducted in order to test the model. Of the respondents, 201 took an entrepreneurship course (entrepreneurship group) and 210 did not take the entrepreneurship course (control group).

There were two major data analyses in this thesis. *First,* the two groups of students were compared by t-test and ANOVA. The results show that there are significant differences in their entrepreneurial intentions confirming the effectiveness of entrepreneurship education on enhancing entrepreneurial intention. *Second,* the conceptual model was tested by SEM (structural equation modeling) path analysis in order to identify the specific relationship between entrepreneurship education components and entrepreneurial intention. Among others, three paths are tested to be significant. They are the paths 1) from know-why to attitude toward entrepreneurship, 2) from know-who to subjective norm (i.e., social influence), and 3) from know-how to perceived behavior control (i.e., self-efficacy or capability). Further, know-what is considered as the basic element which facilitates other components. The findings also reveal significant dependent relationships among the three antecedent attitudes of entrepreneurial intention. For example, subjective norm plays an important role in facilitating attitude toward entrepreneurship as well as perceived behavioral control. Perceived behavioral control can also improve one's attitude toward entrepreneurship. The model suggests the systematic impact of entrepreneurship education on entrepreneurial intention.

Both theoretical and practical implications are explored from the results. Theoretically, this study identifies a robust approach to study the impact of entrepreneurship education on entrepreneurial intention. Further, it provides more detailed information on how entrepreneurial intention forms, considering the inter-relationships among the antecedent attitudes. Moreover, this study provides significant implications for the teaching of entrepreneurship by suggesting an intention-focus approach. Practically, the findings offer useful guidelines for teachers to develop teaching strategies for entrepreneurship.

The most salient feature of this study is that it bridges specific education components and entrepreneurial intention, providing significant insight into how the key components influence the entrepreneurial attitudes and intentions of students. It is probably the first study to fill the gap in the knowledge required for fostering

entrepreneurial intention through entrepreneurship education. Further, this thesis employs SEM path analysis for modeling the students' entrepreneurial intentions. Fitness of the *overall* model (rather than the separated relationships in regression analysis) that path analysis concerns provides more reliable results on the influence of specific education components on entrepreneurial intention.

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