

THE IMPACT OF ENTREPRENEURSHIP
EDUCATION ON ENTREPRENEURIAL
INTENTION OF
ENGINEERING STUDENTS

LO CHOI TUNG

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

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Lo Choi Tung
盧彩彤

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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.

Table of Contents

Abstract	i
Acknowledgement	iv
List of Tables	viii
List of Figures	x
Definition of Terms	xi
Chapter 1: Introduction	1
1.1. Background of the Study.....	1
1.1.1. Importance of entrepreneurship	1
1.1.2. Importance of entrepreneurship education.....	3
1.2. Statement of Research Problem	7
1.2.1. Is entrepreneurship teachable?.....	7
1.2.2. How to teach entrepreneurship?.....	9
1.2.3. What are the influences of education on entrepreneurial intention?	11
1.3. Scope, Aim, and Objectives	13
1.3.1. Scope.....	13
1.3.2. Aim and objectives	18
1.4. Significance of the Study	21
1.5. Overview of the Study.....	23
Chapter 2: Entrepreneurship Education and Theories	30
2.1. Definition of Key Terminologies	32
2.1.1. Defining entrepreneurship	32
2.1.2. Defining entrepreneurial intention	34
2.1.3. Defining entrepreneurship education	35
2.2. Review on Entrepreneurship Education	37
2.2.1. Teaching contents of entrepreneurship	43
2.2.2. Teaching methods of entrepreneurship	45
2.2.3. Effectiveness of entrepreneurship education	48
2.2.4. Levels of entrepreneurship education	53
2.3. Entrepreneurship Education Components	58
2.3.1. Know-what.....	63
2.3.2. Know-why.....	64
2.3.3. Know-who.....	65
2.3.4. Know-how.....	67
2.4. Entrepreneurship Theories	68
2.4.1. Trait models	69
2.4.2. Criticism of trait models	71

2.4.3. Intention models.....	73
2.5. Summary of Literature Review	89
Chapter 3: Conceptual Model and Hypotheses	92
3.1. The Preliminary Conceptual Model	92
3.2. Hypotheses Formulation and the Education-Entrepreneurial Intention Model	97
3.2.1. Hypotheses related to Theory of Planned Behavior (TPB)	98
3.2.2. Hypotheses among entrepreneurship education components	101
3.2.3. Hypotheses between entrepreneurship education and TPB	107
3.3. Summary of the Conceptual Model	112
Chapter 4: Methodology	116
4.1. Research Design	119
4.1.1. Quantitative research design	119
4.1.2. Survey	121
4.2. Procedures to Reduce Survey Errors.....	123
4.3. Participants and Scenario of the Entrepreneurship Course	126
4.4. Questionnaire Development.....	130
4.5. Measures.....	131
4.6. Data Collection.....	145
4.6.1. Pilot study	145
4.6.2. Collecting data from the two groups.....	147
4.7. Data Analysis Methods	151
4.7.1. Data screening.....	151
4.7.2. Sample verification	152
4.7.3. Reliability and validity.....	154
4.7.4. Statistical remedies for common method variance	160
4.7.5. Descriptive analysis, ANOVA and T-test.....	162
4.7.6. Structural equation modeling (SEM)	164
4.8. Chapter Summary.....	167
Chapter 5: Results	169
5.1. Description of Data	170
5.1.1. Participant profiles	170
5.1.2. Descriptive of the variables and simple correlations	171
5.2. Comparison of the Two Groups.....	173
5.2.1. Comparison on entrepreneurial attitudes and intention	173
5.2.2. Effect of demographic factors.....	174
5.3. Model Testing	179
5.3.1. Testing the TPB model for both groups.....	180
5.3.2. Testing the education-entrepreneurial intention model	182
5.4. Chapter Summary.....	186

Chapter 6: Discussion and Implications	188
6.1. Discussion	189
6.1.1. Effectiveness of the entrepreneurship course	189
6.1.2. Impact of demographic factors	190
6.1.3. Model Testing	196
6.2. Implications of the Study	202
6.2.1. Theoretical implication for the TPB model	202
6.2.2. Theoretical implication for entrepreneurship education	205
6.2.3. Practical implication for entrepreneurship education	209
6.3. Chapter Summary	226
Chapter 7: Conclusions	228
7.1. Summary of the Research	228
7.2. Innovation and Features of This Study	231
7.3. Contributions of the Research	234
7.3.1. Theoretical contribution	235
7.3.2. Practical contribution	237
7.4. Limitations	238
7.5. Future Research	239
Bibliography	242
Appendices	262
Appendix 1. Review of Entrepreneurial Traits	262
Appendix 2. Details of the Entrepreneurship Course Offered in CityU, CUHK, and PolyU	267
Appendix 3. Questionnaire Survey on Entrepreneurship Education for Engineering Students	274
Appendix 4. The Q-Q Plots of the Variables	276
Appendix 5. Inter-item Correlation Matrix	279
List of Publications	282

List of Tables

Table 1. Objectives and research questions	20
Table 2. Key articles on entrepreneurship education (1980s).....	38
Table 3. Key articles on entrepreneurship education (1990s).....	39
Table 4. Key articles on entrepreneurship education (2000s).....	41
Table 5. Comparison of the entrepreneurial intention models.....	85
Table 6. Summary of major elements of research procedures.....	118
Table 7. Syllabi of the entrepreneurship course offered in the 3 universities.....	129
Table 8. Summary of measures of variables	132
Table 9. Differences between the senior entrepreneurship students and the “current” students (49 senior students and 53 current students).....	152
Table 10. Differences among the students from the three universities.....	153
Table 11. Demographic differences between the entrepreneurship and control group	154
Table 12. Reliability and validity tests of the measurements (Entrepreneurship group, N=201).....	155
Table 13. Reliability and validity tests of the measurements (Control group, N=210)..	155
Table 14. Reliability and validity test of the measurements (All groups, N =411)..<	156
Table 15. Correlations among the variables and measurement items** (Entrepreneurship group, N=201).....	158
Table 16. Correlations among the variables and measurement items** (Control group, N=210).....	159
Table 17. Corrected relationships among the factors (Entrepreneurship group)	160
Table 18. Corrected relationships among the factors (Control group)	160
Table 19. Partial correlations among the variables*	162
Table 20. Goodness-of-fit measures	166
Table 21. The characteristics of the participants	171
Table 22. Descriptive statistics of the variables.....	172
Table 23. Correlation among the variables** (Entrepreneurship group, N=201)	172
Table 24. Correlation among the variables** (Control group, N=210).....	173

Table 25. Comparison between entrepreneurship group and control group	174
Table 26. Test of homogeneity of variance in ANOVA (Entrepreneurship group, N=201)	175
Table 27. Test of homogeneity of variances in ANOVA (Control group, N=210)..	175
Table 28. Effect of age, year of study, and work experience (ANOVA)	176
Table 29. Effect of gender (Comparing females/males <i>between</i> Entrep. and Control group).....	177
Table 30. Effect of gender (Comparing females/males <i>within</i> Entrep. or Control group).....	177
Table 31. Effect of role model (Comparison <i>between</i> Entrep. and Control group)..	179
Table 32. Effect of role model (Comparing females/males <i>within</i> each group)	179
Table 33. Comparing the unconstrained and constrained models	181
Table 34. Test results of the hypotheses	183
Table 35. Effects decomposition for the entrepreneurship education model.....	185
Table 36. Results of Sobel test.....	185
Table 37. Course intended learning outcomes (CILOs)	222
Table 38. Teaching and learning activities (TLAs)	222
Table 39. Assessment tasks/activities	223

List of Figures

Figure 1. A map of entrepreneurship literature review	31
Figure 2. A trait model (containing the four most salient traits).....	71
Figure 3. Evolution of entrepreneurial intention model.....	74
Figure 4. Entrepreneurial event model (EEM).....	75
Figure 5. Entrepreneurial intention model (EIM)	77
Figure 6. Revised entrepreneurial intention model (Revised EIM)	78
Figure 7. Theory of planned behavior (TPB).....	80
Figure 8. An economic-psychological model of entrepreneurial intentions(EPM)	82
Figure 9. Structural model of entrepreneurial intention (SMEI).....	83
Figure 10. Preliminary conceptual model	95
Figure 11. An education-entrepreneurial intention model	112
Figure 12. Summary of theories used for hypothesis formulation	114
Figure 13. Testing the TPB model for the two groups.....	180
Figure 14. Test results of the entrepreneurship education model	182
Figure 15. A target shooting template for building an entrepreneurship curriculum	211
Figure 16. Teaching model of entrepreneurship	215