

ENTREPRENEURIAL INTENTION OF ENGINEERING UNDERGRADUATES IN SRI LANKA

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Introduction

Entrepreneurship has a significant impact on the socio-economic conditions of a country. For example, by reducing the unemployment rate, uplifting the living standards of the poor, utilizing resources and providing more products/services opportunities to customers. Hence, studies on entrepreneur intention at an early stage are important. Many researchers from both developed and developing countries have researched on entrepreneurial intention. Remeikiene, Startiene and Dumciuviene (2013) state that personality traits such as risk taking, self-efficacy, attitude, behavioural control, need for achievement, pro-activeness and locus of control have a direct impact on entrepreneurial intention; these can also be reinforced through entrepreneurial education.

Due to the resulting socio-economic benefits, entrepreneurship has been added to the curriculum of the education system in many countries, including Sri Lanka. Remeikiene, Startiene and Dumciuviene (2013) observe that both scientists and governments of different countries consider entrepreneurship education as being a possible solution to the youth unemployment problem. Structured teaching and learning methods in entrepreneurship have been introduced in building capacity of students. Sometimes, separate programmes are designed to offer specific entrepreneurship related degrees. On most occasions, one course or a few courses for entrepreneurship are introduced as supportive courses in other degree programmes. When considering engineering education in Sri Lanka, some faculties have introduced entrepreneurship as a supportive management course in addition to the main engineering disciplines. As there is a lack of research into examining the entrepreneurial intention of Sri Lankan engineering undergraduates, this study aims to identify (1) engineering undergraduates' intention to be entrepreneurs and (2) the impact of the entrepreneurship course which they learnt at the university towards their intention.

Although there have been many different definitions of ‘entrepreneur’, there is no consistently accepted single definition in academia. However, Sharma and Chrisman (1999) define independent entrepreneurs as individuals or group of individuals, acting independently of any association with an existing organization and thereby creating a new organization. This study considers only such independent entrepreneurs, not corporate entrepreneurs or any other type of entrepreneurs. Bird (1988) defines entrepreneurial intention as a state of mind directing a person’s attention and action towards self-employment instead of organizational employment. Further, Bird’s study suggests that entrepreneurial intention is based upon a combination of both personal and contextual factors. In addition to these factors, this research study focuses on entrepreneurial education as an influential factor towards entrepreneurial intention as suggested by Remeikiene, Startiene and Dumciuviene (2013).

Methodology

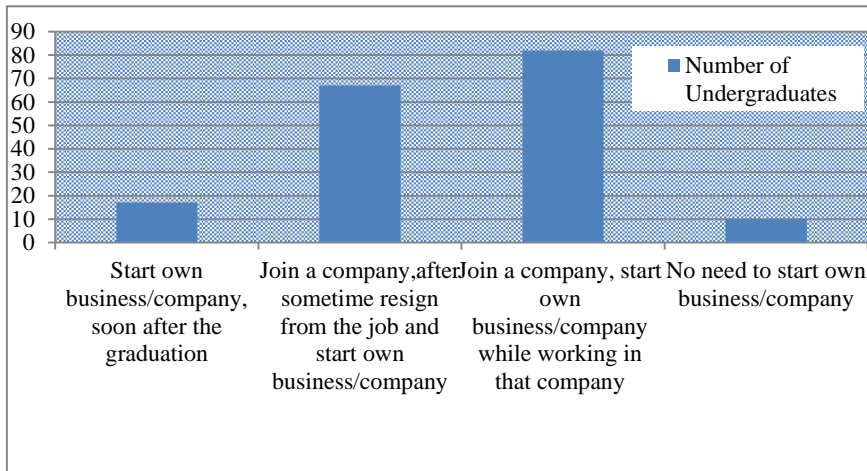
The data were gathered from engineering undergraduates of the Faculty of Engineering, University of Ruhuna, which is one of the leading engineering faculties in Sri Lanka. A structured questionnaire was used to collect data from undergraduates in 3rd and 4th years of their four-year degree programme. Out of 424 students of both batches, 212 students (50%) from each batch were randomly selected. However, due to the exclusion of incomplete questionnaires, the resulting sample size was 176; this indicates a response rate of 83%. In addition to the main engineering disciplines, entrepreneurship is a supportive course for the 3rd year students at this faculty. Moreover, this course is an optional one. Students can follow this course under their interdisciplinary studies. Around 100 students are registered per year for this course.

This study also compared the levels of personality traits of three groups (explained below) of students in the sample. Hypotheses in relation to self-confidence, risk taking, ability to identify business opportunities, need for achievement and quality of life in relation to own activities were tested.

Results and Discussion

Respondents were asked to select their future plan out of four options. Students who selected the first three options (166 students) were identified as those who have entrepreneurial intention while the fourth option (10 students) were considered as not having entrepreneurial intention.

Figure 1. Engineering students' intention to start up the own business.



When asked whether students had followed the entrepreneurship course at the university, 94 students out of 166 who indicated entrepreneurial intent responded positively and 72 responded negatively. The respondents were asked to select the levels of their personality traits in response categories from “very low level” to “very high level”, both before and after following the course. Response categories were quantified from 1 to 5 respectively. The same questions were also asked from those who did not follow the course – but they were asked to select their level of personality traits in general. Three sub groups were thus identified in the sample: “students who followed the course – before following the course”, “students who followed the course – after following the course” and “students who did not follow the course”. A t-test was used to analyze the difference in sample means across the three sub groups. Level of significance was considered as 5% which gives a test statistic of 1.653. The table provides a summary of the results.

Table 1. Summary of data comparisons based on t-test.

Description	Test statistic for the sample mean comparison of before and after situations of following the course	Test statistic for the sample mean comparison of followed and did not follow the course situations
Self-confidence	5.408	1.449
Ability of taking risks	1.795	1.489
Identifying business opportunities	2.032	2.947
Need for achievement	1.998	4.702
Belief in the quality of life depends on own actions	3.443	1.410

After comparing these values with 1.653, all values in the second column of Table 1 are higher than 1.653. This indicates that entrepreneurial education has a significant impact on all the traits considered. However, in the third column of Table 1 only two traits are significant at the 5% level (greater than 1.653) – this is in identifying business opportunities and the need for achievement.

Conclusion

Entrepreneurial education has made a positive impact towards the existing personality traits of engineering undergraduates. The positive impact on personality traits from entrepreneurial education increases the entrepreneurial intention of students. However there was not enough evidence to accept that students who did not follow the entrepreneurial course have lower level of personality traits in self-confidence, ability of taking risks and belief in the quality of life depending on own actions when compared with those who followed the course. Despite that there was enough evidence to accept that students who did not follow the entrepreneurial course have lower level of personality traits in the form of identifying business opportunities and need for achievement when compared with those who followed the course. We can thus conclude that entrepreneurial education increases the entrepreneurial intention of engineering undergraduates in Sri Lanka, but there was not enough

evidence to compare the level of entrepreneurial intention among those who followed the entrepreneurial course versus those did not. Therefore, entrepreneurial education programmes can be recommended to increase the entrepreneurial intention of engineering undergraduates.

References

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