Entrepreneurship Education at Institutions of Higher Learning: 
Recommendations of Academics and Students in Malaysia

Zaimah Zainol Ariffin and Natrah Saad
Universiti Utara Malaysia

Abstract: This study examines the academic behavior and students’ perspective of public universities in entrepreneurship education programs in Malaysia. In order to gauge the perceptions of academics, questionnaires were distributed to academics of three (3) public universities. The first set of questionnaires gathered information on academic behavior from 43 lecturers who taught entrepreneurship courses. The results suggest that perceived desirability, attitude and university climate have significant correlation with the entrepreneurship education behavior of faculty. In order to obtain students’ perceptions, another set of questionnaires was gathered from 362 undergraduate students enrolled in entrepreneurship program. The analysis suggests that students are generally content with desirability and behavioral intention factors. The findings together with the recommendations forwarded are expected to provide significant input to public universities on their current entrepreneurship education programs and the efforts necessary to be undertaken in order to promote entrepreneurship skills among graduates.

Key words: Entrepreneurship Culture · Public Universities · Academics · Students and Perspectives

INTRODUCTION

The role of entrepreneurship in boosting global economic growth has drawn attention to the importance of entrepreneurship education. According to Katz [1], the number of institutions offering courses related to entrepreneurship has grown significantly. An expansion of the number of individuals pursuing entrepreneurship courses or program has occurred. Due to this phenomenon, a challenging task exists for Malaysian institutions of higher education to provide effective entrepreneurship education.

Shifts in university curriculum have occurred with the creation of entrepreneurship courses at technical colleges and universities. This is part of the response to the changes in the economic situation including a growing need for applied and technical professionals and an industrial revolution based on a knowledge-age economy. Institutions of higher learning are now shifting their programs by offering practical training in response to industrial and economic demands.

This study examines the viability of entrepreneurship education in Malaysian universities from the perspectives of academicians and students. Based on both perspectives, this study proposes recommendations for entrepreneurship education programs or courses for public universities in Malaysia. The proposed recommendation will help universities to enhance academic values in conducting entrepreneurship education and creating an entrepreneurial culture in universities. This paper is organized as follows. The literature review that is the discussion of academics behavior and students perception is presented in section 2. In section 3, the research methodology is outlined. The findings are reported in section 4. The recommendations from the findings are offered in section 5. Finally, this study concludes with several recommendations in the last section.

Literature Review

Academics Behaviour: Llano [2] extended Theory of Planned Behaviour was adapted to measure academic entrepreneurship behaviour in conducting entrepreneurship education programs in the university surveyed. Academic behaviour can be divided into six categories including, (1) Academic Entrepreneurship
Intention, (2) Perceived Desirability, (3) Perceived Feasibility, (4) Subjective Norms, (5) University Climate and (6) Attitude towards Entrepreneurship Education.

Academic entrepreneurship intention measures the motivation and preparation of academic in converting entrepreneurial knowledge into the entrepreneurial culture and behavior. It measures entrepreneurship academic behaviour through motivation, consideration, preparedness and struggle. Perceived desirability refers to the degree to which an academic has favourable expectations for conducting academic entrepreneurial activities. The value measured is based on desire, enthusiasm, pleasure and the feeling of being overworked. Perceived feasibility is the degree to which an academic feels capable of conducting an entrepreneurship program. Feasibility is categorized into feasible, difficult, knowledge adequacy and possibility of success. Subjective norms are described as the influencing factors in academic professional behavior. The influencing factors are stimulated by University leadership, academic colleagues, the faculty/school, the government and industries.

University climate refers to the academic behavior influenced by several factors namely resources, facilities, rewards, supports and expectation within the university. Attitude is used to predict behavioral intentions towards the defined academic entrepreneurship behavior. It measures attitude and skills among graduates, creating new jobs and nurturing potential entrepreneurs. Entrepreneurship education behavior is academic commitment to conducting entrepreneurship education in the university, including effectiveness, smoothness, success and determination.

Students’ Perception: The theoretical background of students’ perception was based on Shapero and Sokol’s [3] extended Intention Theory. The conceptual framework for measuring students’ perception has three main components, namely (1) desirability, (2) feasibility and (3) behavioural intention. These are used to predict student perceptions of entrepreneurship education offered in institution of higher learning in Malaysia. Entrepreneurship intention is embedded in the model in identifying students’ intention towards career in an entrepreneurship field.

Desirability comprises students’ perceptions of administrative support, families and communities and an entrepreneurship lecturer’s skills and knowledge. Feasibility comprises students’ perceptions of entrepreneurship course content, teaching methods, facilities and infrastructure and the duration of study. Behavioural intention comprises the attitudes, behaviour and educational support of students. Identifying the intentions of students with respect to entrepreneurship education at the university level is vital for designing courses to help awaken and stimulate student interest in the entrepreneurship field. Entrepreneurship intention refers to the degree to which an individual has either desirable or undesirable appraisal of the overall institution resulting in making entrepreneur as career.

Research Methodology: The study used two sets of questionnaires to collect data from academics and students. The first set of questionnaires gathered information on entrepreneurship academic behaviour from the lecturers who taught entrepreneurship courses. The questionnaires were distributed to entrepreneurship lecturers at three public universities in Malaysia. A total of 93 questionnaires were sent based on the total number of the entrepreneurship lecturers in those institutions and 43 questionnaires were returned, which was a response rate of 46.2%.

The second set of questionnaires gathered information on entrepreneurship behaviour from the perception of students. A total of 400 questionnaires were distributed to undergraduate students who were enrolled in entrepreneurship programs and 375 questionnaires were returned for a response rate of 94%. However, only 362 questionnaires were found to be usable, thus the effective return rate was 90.5%.

RESULTS

The result from path coefficient values are reported in Table 1 to show the strength of academics behaviour in conducting entrepreneurship education programs in the University. According to Chin [4], the result is considered meaningful, the path coefficients should be around 0.2 and ideally should be above 0.3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Intention</td>
<td>0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>Attitude</td>
<td>-0.21</td>
<td>*1.53</td>
</tr>
<tr>
<td>Perceived Desirability</td>
<td>0.69</td>
<td>***4.66</td>
</tr>
<tr>
<td>Perceived Feasibility</td>
<td>0.08</td>
<td>0.55</td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>0.13</td>
<td>1.19</td>
</tr>
<tr>
<td>University Climate</td>
<td>0.16</td>
<td>*1.54</td>
</tr>
</tbody>
</table>

Note: ***significant at the 1% level, **significant at the 5% level and *significant at the 10% level.
The path coefficient results suggest that attitude, perceived desirability and university climate have a significant correlation with entrepreneurship education behaviour at -0.21, 0.69 and 0.16, respectively. However, no significant relationships were reported for the remaining variables. In particular, the results indicate that attitude towards entrepreneurship education had a negative relationship with entrepreneurship behaviour, while perceived desirability and university climate had a positive relationship with entrepreneurship education behaviour. Surprisingly, the negative results for attitude suggest that, although the academicians perceived that entrepreneurship education would be able to produce potential entrepreneurs, their efforts directed towards providing the entrepreneurship program did not meet the expected outcome. This could be attributable to their lack of industrial experience or length of service.

With regard to perceived desirability and university climate, the results suggest that the aspirations of academicians and university policies influence academic professional behaviour in conducting entrepreneurship education at the university level.

Table 2 Shows the perceptions of students of entrepreneurship education that would stimulate the intentions of graduates to start a business.

Table 2: Students’ Perceptions towards Entrepreneurship Education

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.068</td>
<td>1.535</td>
<td>-0.044</td>
<td>0.965</td>
</tr>
<tr>
<td>Total Desirable</td>
<td>0.126</td>
<td>0.051</td>
<td>2.483</td>
<td>0.015**</td>
</tr>
<tr>
<td>Total Feasibility</td>
<td>-0.052</td>
<td>0.032</td>
<td>-1.640</td>
<td>0.104</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>0.274</td>
<td>0.043</td>
<td>6.328</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

$R^2 = 0.451$

$F = 29.876$

$P = 0.000$

Dependent variable: Entrepreneurship Intention

Table 2 shows the value of $R^2$ was 45.1% meaning that the independent variables explained 45.1% of the total entrepreneurship model. $R^2$ was statistically significant with $F = 29.876$ and $P < 0.000$. This means that 54.9% of the intention to start a business could be explained by other influences. This is expected as this study did not look at the entrepreneurship intention framework, but only sought to explain the relationship of desirability, feasibility and behavioral intention towards entrepreneurial intention. The analysis also shows that among each of the factors, desirability factors and behavioral intention are the variables that provides the most significant explanatory power.

**Discussions and Recommendations:** This study offers suggestions for improvement for entrepreneurship education in higher learning institutions from the perspectives of academics and students.

**Academic Perspectives:** The results indicated that perceived desirability, attitude and university climate had significant influence the behaviour of academics, thus, focusing on these aspects in promoting entrepreneurship behaviour is vital. Academicians should be encouraged to improve their diligence in their work. Among other ways that this improvement could be fuelled are through proper incentives such as monetary or non-monetary recognition. If this were done, academicians might perceive that their efforts were being appreciated.

With regard to attitude, the results indicate that entrepreneurship skills, job creation and potential nurturing ability among academicians may help improve entrepreneurship behaviour of students. Thus, training in this regard would be beneficial not only for the academics but also for the students enrolling in such courses/programs. In addition, hiring academics with industrial experience is critical for nurturing potential entrepreneurs. Collaboration with alumni who are considered successful entrepreneurs would add value to the courses because they can share their business experiences.

University climate is another important factor that greatly influences entrepreneurship behaviour among faculty members. Among others aids, a nurturing university climate should include appropriate resources, sufficient facilities and equipment, suitable classrooms and reward/recognition. Such are within the control of the university to provide a proper entrepreneurship environment. Should the university account for all these factors in creating entrepreneurship behaviour among faculty, the possibility of enhancing the entrepreneurship environment in universities would be increased.

**Students Perspectives:** The results from the perspectives of students denote that desirability factors and behavioural intentions are important factors providing significant elucidatory power for explaining the intention of students to start a business after graduation.

Desirability factors comprise elements including (1) administrative support, (2) families and communities, and (3) the skills and knowledge of lecturers. Because administrative support is an important factor for boosting
entrepreneurship behaviour, the university should display a more visible commitment to entrepreneurship, offer related opportunities and treat the program and its courses on a par with other programs. Further, feedback from students should be analysed and discussions involving the various concerned parties should be conducted to solve any issues raised. In addition, credit or merits should be awarded to students who have performed well. Last, but not least, appropriate facilities should be maintained.

In addition, the fact that family and community support may influence graduates in choosing an entrepreneurial career means that exposure to entrepreneurship should not be limited to merely the graduates themselves but also should be provided to the local community, the university community and friends and families. By doing these things, referent groups may motivate graduates informally.

The ability of the academics to convey knowledge and skills to students may directly affect their perceptions about an entrepreneurship career. Skilful and knowledgeable lecturers would positively motivate students and recent graduates to pursue entrepreneurial careers. Thus, the selection of appropriate academics is crucial for ensuring proper learning and teaching delivery.

Furthermore, perceived feasibility in terms of course content, teaching methods, facilities and infrastructure and duration of study may also contribute to the success of entrepreneurship behaviour. In this regard, the university should embed leadership and entrepreneurial skills, hands-on learning and relevant values to prepare the graduates.

In addition, various teaching approaches such as explorative and experiential method should be applied to stimulate interest among the students. Similar to the perspectives of lecturers, students also view the university’s facilities and infrastructure as important criteria for promoting an entrepreneurship environment. Another important area for improvement is the duration of the study. The university should consider the appropriate duration of study to attract students to enrol in their program.

CONCLUSIONS

This study examines the entrepreneurship behaviour and perceptions from the perspectives of both academics and students at institutions of higher learning. Based on the findings, several recommendations are proposed to improve the current implementation of entrepreneurship education programs. This study examined the viability of such programs by looking at the determinants of entrepreneurship behaviour. In particular, the study tests the influence of entrepreneurship intention, perceived desirability, perceived feasibility, subjective norms, university climate and attitude on entrepreneurship behaviour. The results suggest that out of the six variables, only three variables, namely, perceived desirability, university climate and attitude are significant in doing so. In addition, students also believed that perceived feasibility and perceived desirability contribute to the growth of entrepreneurship education program in universities. Their opinions appear to be consistent with those of the academics surveyed.

In view of the above, the results indicate that these four aspects (perceived desirability, perceived feasibility, university climate and attitude) should be emphasised in order for any Malaysian university to promote its entrepreneurship education program. In particular, factors of concern with respect to faculty should be the enthusiasm of academics, their desire to work in such a program and the pleasure they derive from conducting entrepreneurship activities or programs.

From the perspective of students, factors that must be emphasized include administrative support, families and communities support and understanding the skill and knowledge of their lecturers. With regard to feasibility of conducting a successful program, the difficulty of conducting an entrepreneurship program, knowledge and the probability of success are the main dimensions academics highlighted. Students on the other hand, are concerned with course content, teaching methods, facilities and infrastructure and duration of study. In relationship to university climate and attitude, both academics and students share similar views.

REFERENCES