

Impact of Entrepreneurship Education on Entrepreneurial Perspective in Oman

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Abstract

Purpose: The purpose of this study is to determine if a difference exists regarding the impact of Ministry of Higher Education, Research and Innovation (MoHERI) mandated entrepreneurship course on students in a HEI in Oman with respect to year of completion, gender and course grade secured.

Research Methodology: This work incorporates quantitative case study research strategy, employs survey as data collection technique and deploys AVOVA and Chi-Square Test as the data analysis tools.

Research Implications: The research framework and findings pave way for more such pursuits to be carried out across various universities and colleges in Oman to build a common theory regarding entrepreneurial perspective development.

Practical implications: A wide-ranging work incorporating more HEIs would result in formulating a roadmap and guidance for educators and policy makers of entrepreneurship education in Oman.

Findings: The research findings illustrate that there was no substantial difference in entrepreneurial perspective development of students who completed this course during different semesters across last three academic years. Furthermore, it was established that entrepreneurial perspective development is independent of age or grade scored by students.

Originality Value: This study is first of its kind undertaken at an HEI in Oman which incorporates two data analysis tools, paving way for more such empirical research works to be carried in future.

Keywords: Entrepreneurship Education, Entrepreneurial Perspective, HEI

Category: Applied paper

1. Introduction

Entrepreneurship has had an undoubtable and predominant role in socio-economic and political transformation of nations programs (von Graevenitz, Harhoff and Weber, 2010). The topic, however, holds complexities in theory due to the varied contextual descriptions which further dichotomizes theory from pedagogy. However, it is clear that entrepreneurship or certain aspects of it can be taught. The key aspect is not to ask whether entrepreneurship can be taught; rather it is more relevant to find ways on how it could be taught (Kuratko, 2005). In terms of *what* is to be taught- curricula varies, however there are common skills that are to be acquired or competencies to be developed in order to change the entrepreneur from theoretical perspective to an applied function and into a career (Fayolle and Gailly, 2015). There are other more specific entrepreneurial skills such as that of developing a capacity for lateral thinking, creativity and innovation; interpersonal skills/communication skills in order to deal with people as well as network effectively; resilience, flexibility and adaptability (Nieuwenhuizen, 2009). A world economic forum report published in 2009 titled, 'Educating the Next Wave of Entrepreneurs- Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century' highlights that in order for effective pedagogy to take place the education should focus on developing higher order thinking skills, hands-on, project-based, multidisciplinary, non-linear approaches. In terms of, more specifically, *how* entrepreneurship should be taught, the report mentions that the most successful curriculum for entrepreneurship programmes include activities which often take place outside the classroom setting alongside clear objectives tied to textbook topics with reflective and evaluative sessions. Activities can include but are not limited to stimulating games; interactive teamwork and group activities; action-oriented market research; creating business plans or possibly competitions with entrepreneurs as judges; being exposed and conversing with entrepreneurs. There was a specific emphasis on the use of technology in leveraging the experience through providing greater accessibility and scalability (World Economic Forum, 2009).

The paradigm of entrepreneurship has been one of great fascination across the globe due to the various associated benefits. Namely, that of stimulating innovation, invention, economic and socio-economic development. It has been a strong economic driving force in developing and developed nations; it is a means of economic diversification; increasing a nation's GDP and catalysing the overall development and growth of a country (Shah *et al.*, 2020). From a socio-economic and political standpoint, it has become a solution to generating wealth and job creation as well as superior quality of life (Matlay, 2005). Hence, the birth of Innovation Economics, introduced by Joseph Schumpeter in 1942 which adds to classic economic theory and even goes as far as to argue that entrepreneurship and innovation are at the heart of economic growth. Due to the aforementioned reasons, the topic of entrepreneurship has been in common parlance with academics and policy makers globally. They have become focused not only on supporting entrepreneurship activity but also entrepreneurship education. Increasing the quantity and quality of this education would positively contribute to the understanding of the process and therefore economic development and growth, especially in Oman (Yarahmadi and Magd, 2016).

2. Literature Review

The world has witnessed the powerful emergence of entrepreneurship education - being a widespread, strong, independent source of economic growth and sustainability after oil and gas production (Guerrero and Urbano, 2012). New businesses are being established, with an average

number of 600,000 per year and many of these businesses have been established as sole proprietorship or partnership (Van Praag and Versloot, 2007). Moreover, (Kuratko, 2005) stated that since 1996 small businesses have started to show up more and have created 1.6 million new jobs in the USA. They were famously called ‘Gazelles’ – as the new firms accounted for 94% of the net job creation in that period. Most of the entrepreneurship centers in universities have been focusing on 3 key areas: entrepreneurship education, outreach of entrepreneurial activities and entrepreneurial research – which will always remain as the pillars of developing entrepreneurial awareness (Boh *et al.*, 2003).

Entrepreneurship Education is becoming popular across the globe in higher educational institutions (Morris *et al.*, 2013; Kiyani, 2017; Nabi *et al.*, 2017; Neck and Corbett, 2018). At the forefront of making meaningful impact towards students’ intentions regarding entrepreneurship and business venture start-ups, is Entrepreneurship Education (Al-harrasi and Al-salti, 2014; Bae *et al.*, 2014; Karimi *et al.*, 2016; Maresch *et al.*, 2016). It has been gaining popularity in higher education institutions across the globe (Morris *et al.*, 2013; Fayolle and Gailly, 2015; Nabi *et al.*, 2017; Neck and Corbett, 2018). In making positive change to reduce unemployment, and increase individuals’ earnings (Nwanko *et al.*, 2012; Adekiya and Ibrahim, 2016) – entrepreneurship is being reinforced as a necessary and pragmatic strategy to also increase knowledge acquisition, leadership skills, risk taking abilities and innovation (Hong *et al.*, 2012; Sánchez, 2013). It has been established that effective access and implementation of entrepreneurship education allows students greater opportunity for success in probability of employability, in business start-ups and in becoming entrepreneurs themselves. As a result, entrepreneurship education has and will continue to pave the way for students to develop both life long and professional competencies (Mets, Kozlinska and Raudsaar, 2017; Pöder *et al.*, 2019). In addition, the introduction and perpetration of this type of targeted education will breed graduates who enter society with an entrepreneurial mindset and the skills to create entrepreneurs (Peterman and Kennedy, 2003; Patir and Karahan, 2010), as well as providing tools to create wealth and produce business leaders (Solesvik *et al.*, 2013). It has been shown that there is a trend amongst students to establish their start-up ventures as soon as they become graduates. This is a practical move as entrepreneurship has been identified as the key to help transition students into the real world of entrepreneurship - a concept is further supported by (Bae *et al.*, 2014). Ceresia (2018) claims that there is a positive relationship between entrepreneurship education and intentions in Egypt (Hattab, 2014), in France (Packham *et al.*, 2010) and in Turkey (Akin and Demirel, 2015). Furthermore, entrepreneurship education also functions to increase students’ interest in self-employment and entrepreneurship as a career (Kirkwood, 2009; do Paço *et al.*, 2011; Stamboulis and Barlas, 2014; Kautonen, van Gelderen and Fink, 2015; Kiyani, 2017).

Many factors correlated to show the differences between men and women as entrepreneurs (Karimi *et al.*, 2014). One of the key factors is self-confidence - an important skill that an entrepreneur should have in order to be able to manage or establish a business (Premand *et al.*, 2016). According to Martin *et al.*, (2013), gender influences entrepreneurial self-confidence and has a stronger effect on their interest - more on teenage girls than boys. As illustrated by Packham *et al.*, (2010), a career psychologist found that gender is an important parameter which results in differences in performance in the workplace and mentioned that women have low expectations of their entrepreneurial initiatives than men. Moreover, Karimi *et al.* (2014) stated that women have less confidence when it comes to problem solving, decision making and financial management. At

times, because women tend to be more emotional than men. In addition, women tend to choose academic parity but look away from it in their entrepreneurial activities, as they perceive they have limited future career options (Zhang, Duysters and Cloudt, 2014). However, the literature does not establish a clear understanding on the difference in impact of entrepreneurship education on men and women. Moreover, there is limited information available regarding the impact of entrepreneurship education on students in Oman. Entrepreneurship education got the attention in Oman and many projects - regional, national and international programs are being initiated and promoted, which support entrepreneurship education (Al-shanfari, 2012). The two college networks Applied under the Ministry of higher education and Ministry of manpower across the sultanate - Colleges of Applied Science & Higher Colleges of Technology (now merged into University of Technology and Applied Sciences) are collaborating in fostering entrepreneurship culture among business and non-business students (Ibrahim, 2016). Furthermore, other public and private HEIs are offering new courses on entrepreneurship skill development, building entrepreneurship cells and units, developing incubation and business centres, and partnering with other institutions based in Europe and USA to facilitate further enhancement of entrepreneurial competencies among the youth of Oman.

3. Methodology

Objective

To determine if a difference exists regarding the impact of Ministry of Higher Education, Research and Innovation (MoHERI) mandated entrepreneurship course on students in a HEI in Oman with respect to year of completion, gender and course grade

Indicators Assessed

According to Kuratko & Hodgetts (2004), the indicators of EP are:

- Willingness to take calculated risks personally & professionally
- Capability to form a venture team and lead it efficiently
- Proficiency to manage resources effectively
- Aptitude to draft a business plan methodically
- Ability to recognize a business opportunity swiftly
- Well-informed to utilize the governmental support for SMEs fruitfully

Research Hypotheses

To accomplish the aforementioned objective, relevance of the course in terms of EP of the students was measured. To ensure consistency of the course delivery [H1] has been drafted. The non-difference in the EP will scientifically prove the relevance and the delivery standards of MCBS. To study the effect of gender on EP of the students, [H2] was framed. This was influenced by the works of (Nwanko *et al.*, 2012; Karimi *et al.*, 2014) on impact of gender effect on Entrepreneurial skills and risk-taking behavior. Various studies have illustrated that entrepreneurial knowledge enhancement and mindset development could be independent of the grade scored (Bae *et al.*, 2014; Johansen and Schanke, 2014). Thus, [H3] was drafted to assess whether EP is dependent or independent of the course grade, in an Omani context.

- H1 – EP of students in MCBS is independent of the year they pursued the course
- H2 – EP of students in MCBS is independent of their gender

- H3 – EP of students in MCBS is independent of their course grade

The Case: Modern College of Business & Science, Muscat, Oman

The HEI based in Oman is selected based on the postulation that the chosen case must enable the researchers' enough access to data.

4. Findings and Discussion

A self-completed survey using Google Forms was created and was shared with students (respondents) after their course completion. The reliability of the questionnaire was tested using Cronbach alpha, which is one of the most universally accepted measures for testing the internal consistency of questionnaires. Cronbach alpha is the most appropriate method for measuring the reliability of questions with Likert scale or dichotomous questions. In this study, the alpha value estimated for 8 question items including 6 EP indicators is 0.703. The Cronbach alpha value lies between 0 and 1 but an alpha value below 0.7 is not acceptable (Cappelleri *et al.*, 2007; Shemwell, Chase and Schwartz, 2015), as it means that the questions are not reliable.

The data was collected from over a hundred students who undertook the entrepreneurship course (ENT 201) across three academic years, 2016-17, 2017-18 and 2018-19. The largest sample set is from 2018-19, wherein 61 students completed and submitted the questionnaire. Since the data collection process was initiated during the current academic year 2019-20, the highest participation rate is from students of the immediately preceding academic year 2018-19. Figure 1 displays the breakup of the responses from those three academic years. The sample consisted of 78 female students and 27 male students.

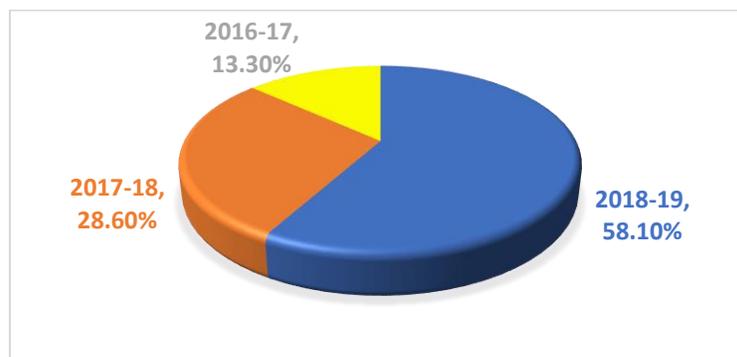


Figure 1: Percentage representation from the three academic years

Figure 2 represents the student responses on their previous experience in entrepreneurship or any kind of training program on entrepreneurship attended before taking up the ENT 201 course in MCBS. Only 17.1% of the students in the survey were having any kind of exposure or training to entrepreneurship education. Most of the students (82.9%) did not have any prior education and/or training in entrepreneurship. This data shows the relevance of the ENT 201 course for HEI in Oman.

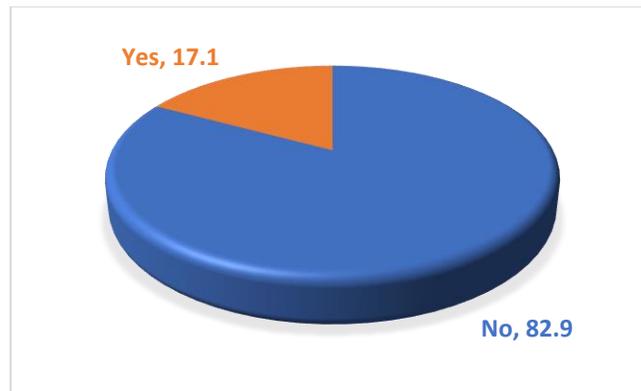


Figure 2: Percentage representation of students' prior exposure

In table 1, table 2 and table 3; the indicator 'Willingness to take calculated risks personally & professionally' has been represented as 'Risk'; the 'indicator Capability to form a venture team and lead it efficiently' has been represented as 'Leadership'; the indicator 'Proficiency to manage resources effectively' has been represented as 'Resources'; the indicator 'Aptitude to draft a business plan methodically' has been represented as 'Business Plan'; the indicator 'Ability to recognize a business opportunity swiftly' has been represented as 'Business Opportunity' and the indicator 'Well-informed to utilize the governmental support for SMEs fruitfully' has been represented as 'Government Support'.

Table 1 displays the results of a one-way ANOVA applied to the six EP indicators over the period of three academic years. The purpose of applying ANOVA was to measure the mean difference of EP indicators between the three years. The mean comparison of EP indicators for the three academic years helps with detecting the consistency of the course delivery. All the estimated P-values are greater than 0.05 which indicates the non-rejection of a null hypothesis. In other words, at 5% significance level there is no significant difference between the mean values of the EP indicators accomplished by the MCBS students.

Table 2 illustrates the results of the Chi-square test of independence between the two categorical variables of gender (male & female) and the responses of students on their EP indicators (Strongly Disagree & Disagree, Neutral, and Agree & Strongly Agree). The chi-square test was conducted between gender and each EP indicator, one by one at 5% level of significance, and the six chi-square test results are shown in the table. It is observed that all the estimated P-values are greater than 0.05 which means the null hypothesis of independence between gender and EP indicators has not been rejected. Therefore, it can be stated that EP of MCBS students is independent of gender or there is no association between the gender of students and their EP.

Table 1: One-way ANOVA results

Risk & Gender		Leadership & Gender		Resources & gender		Business Plan & Gender		Business Opportunity & Gender		Government Support & Gender	
Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value
1.511	0.47	3.433	0.18	5.6	0.061	2.18	0.336	1.81	0.41	0.77	0.68

Table 2: Chi-Square Test of Independence Results

Risk	Leadership		Resources		Business Plan		Business Opportunity		Government Opportunity		
F-Value	P-Value	F-Value	P-Value	F-Value	P-Value	F-Value	P-Value	F-Value	P-Value	F-Value	P-Value
2.73	0.07	1.085	0.34	1.49	0.23	0.27	0.76	1.75	0.18	0.844	0.43

Table 3 displays the chi-square test values and P-values of the test between ‘Grade’ and six EP indicators. It can be observed that the P-value for Risk, Leadership, Business Plan and Business Opportunity is less than 0.05 while the P-value for Resources and Government Support are greater than 0.05 but less than 0.1. In this case, the null hypothesis about independence between the two variables has been rejected. Therefore, at 5% level of significance grade has an association with Risk, Leadership, Business Plan and Business Opportunity indicators and grade also has an association with Resources and Government Support indicators at 10% level of significance.

Table 3: Chi-Square Test of Independence Results

Risk & Grade	Leadership & Grade		Resources & Grade		Business Plan & Grade		Business Opportunity & Grade		Government Support & Grade		
Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value	Chi-Square Value	P-Value
22.47	0.033	26.3	0.01	18.6	0.099	28.8	0.004	27.7	0.006	19.15	0.085

5. Conclusion

The objective of the research was to investigate the effectiveness of the mandatory entrepreneurship course introduced by the MoHE, Oman. The findings of this paper suggest the relevance and requirement of the course, as it has been empirically proved that the EP of MCBS students has an association (dependency) on the learnings (grades) that they have received in their entrepreneurship course at the college. Also, it has been empirically proved that the EP of MCBS students has an association (dependency) on the learnings (Grades) they have received in their entrepreneurial course at MCBS. In the sample period under consideration, a consistency in the program effectiveness was also detected as there is no significant difference between the mean values of the EP indicators accomplished by the MCBS students during three years' time. These findings would definitely pave way for more such pursuits to be carried out across various universities and colleges in Oman to build a common theory regarding entrepreneurial perspective development. A wide-ranging work incorporating more HEIs would result in formulating a roadmap and guidance for educators and policy makers of entrepreneurship education in Oman.

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