

Entrepreneurship Education and Employability of Arab HE Business Students: An Attempt for a Primary Investigation

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Abstract

This research paper offers an organised synthesis of the related literature to define the different factors that might have an influence to illustrate the impact of entrepreneurship education on business and economics degree courses in Arab Higher Education (HE) (i.e. United Arab Emirates - UAE) and the impact such entrepreneurship education has on students' attitudes towards starting a small business or their own businesses. The paper first, systematically stratifies existing literature into key thematic groupings covering entrepreneurship education, and entrepreneurship education impact on students' attitudes towards starting a Small Business Enterprise (SBE) or Small or Medium Enterprise (SME). The main aim of the paper is to create a research framework and instrument that can investigate the impact of teaching entrepreneurship on business and economics degree courses in UAE HE and its impact on students' attitudes towards starting an SBE or their businesses. This paper contributes to the existing body of knowledge by synthesising and analysing published work related to entrepreneurship education impact on students' attitudes towards starting an SBE or SME and introducing a research framework and instrument that can investigate such relationship. Moreover, it provides scholars and practitioners with a useful reflective commentary upon current knowledge and signposts future research endeavours in this domain.

Keywords: Entrepreneurship Education, UAE, UAE HE, HE Institutions, HE Students, Entrepreneurship Education in the Arab World, Students Attitudes, SBES, SMEs, Developing Countries

Introduction

Consistent with the business and management related literature, entrepreneurship is considered to be an exceptional set of activities carried out by individuals with an exceptional mind-set in order to maximise profit (Abu-Saifan, 2012). As expected (like any other important term in business and management, entrepreneurship had been defined in many different ways. Table 1 provide a summary of the different definitions of entrepreneurship and main characteristics of the entrepreneur.

Table 1: Different definitions of entrepreneurship and main characteristics of the entrepreneur

<i>Study</i>	<i>Definition</i>	<i>Entrepreneur Core Characteristics</i>
Timmons and Spinelli (2008)	Entrepreneurship is a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach and leadership balanced.	Leader Holistic Persistent Committed
Kao and Stevenson (1985)	Entrepreneurship is an attempt to create value through recognition of business opportunities.	Value creator Opportunity aware
Carland et al. (1984)	The entrepreneur is characterised principally by innovative behaviour and will employ strategic management practices in the business.	Strategic thinker
Kirzner (1978)	The entrepreneur recognises and acts upon market opportunities. The entrepreneur is essentially an arbitrageur.	Arbitrageur
Shapero (1975)	Entrepreneurs take initiative, organise some social and economic mechanisms and accept risks of failure.	Organiser Initiative taker
McClelland (1961)	The entrepreneur is a person with a high need for achievement. This need for achievement is directly related to the process of entrepreneurship Entrepreneur is an energetic moderate risk taker.	High achiever Risk bearer Dedicated
Schumpeter (1934)	An entrepreneur is an innovator who implements entrepreneurial change within markets, where entrepreneurial change has five manifestations: 1) the introduction of a new/improved good; 2) the introduction of a new method of production; 3) the opening of a new market; 4) the exploitation of a new source of supply; and 5) the carrying out of the new organisation of any industry	Innovator

Source: Adopted from Abu-Saifan (2012)

As such, and considering the definitions of entrepreneurship and main characteristics of the entrepreneur, an entrepreneur is often considered to be someone who is prepared to undertake a new enterprise or a catalyst of change. Entrepreneurs are able (or at least willing) to realise a new opportunity; whereas management, or a traditional person and/or manager may be focused on the finest and most efficient and effective method of functioning and using the existing procedures (Abu-Saifan, 2012). Therefore, entrepreneurship is nowadays extensively linked with innovation and creativity as a pathway to prosperity; vital for the acceleration of economic growth in both developed and developing countries to generate prosperity, decrease unemployment rates and challenge poverty (Economist, 2011).

The entrepreneur usually is someone who knows how to use potential resources in the best suitable way to achieve exceptional performance. According to Uzunidis, Boutillier and Laperche (2014), entrepreneur potential resources can be analysed in three groups:

- (a) Knowledge (which include: schooling, secondary education, higher education, further education and professional experience, etc.);
- (b) Financial resources (which include: personal savings, bank loans, venture capital and different forms of public support); and
- (c) Relations (which include: family, personal, professional, institutional relations, etc.) (Uzunidis, Boutillier and Laperche, 2014)

Table 2 illustrates the entrepreneur different potential resources as well as its elements and main characteristics.

Table 2: The entrepreneur potential resources

<i>Resource potential</i>	<i>Main characteristics</i>
Knowledge	Tacit knowledge obtained from the family
	Scientific and technical knowledge learned at school
	Knowledge obtained through relations
	Knowledge obtained through professional experience
Financial resources	Personal savings
	Love money: parents, friends, etc.
	Bank loan
	Financial aid from institutions (e.g. public aids)
	Seed money from another entrepreneur
Relations	Informal relations (family, friends, neighbourhood, colleagues, etc.)
	Formal relations (State, banks, other enterprise, research institutes, etc.)

Source: Uzunidis, Boutillier and Laperche (2014).

Moreover, Uzunidis, Boutillier and Laperche (2014) linked entrepreneur potential resources with:

- a) Public policies,
- b) Economic organisation, and
- c) The market.

To introduce organic square of entrepreneurship (figure 1) which they used to study the origin of the entrepreneur's function and to examine the construction of the entrepreneur's potential resources and the impact of socio-economic background on such potential resources in France (Uzunidis, Boutillier and Laperche, 2014).

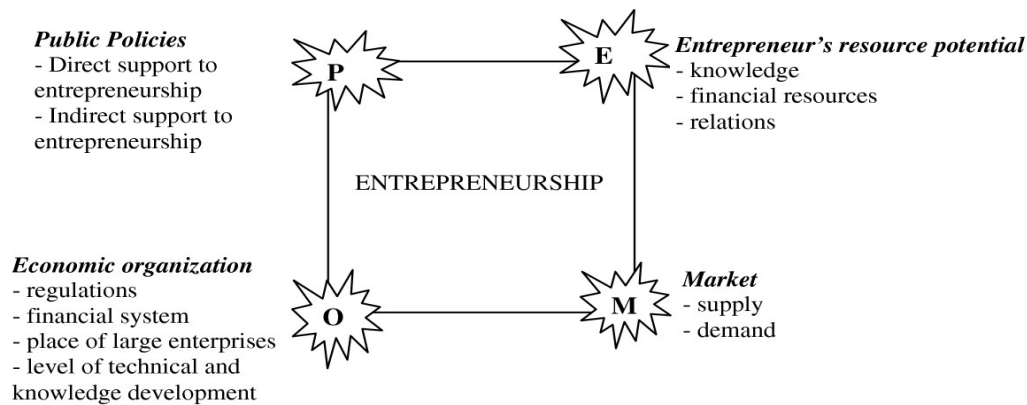


Figure 1: The organic square of entrepreneurship

Source: Uzunidis, Boutillier and Laperche (2014).

Meanwhile, the concept of entrepreneurship has gained a lot of interest and attraction from researchers, policy makers and practitioners during the last two decades, to develop a better understanding of how they can be used to increase organisations productivity efficiently and effectively (El-Gohary, O'Leary and Radway, 2012). Unlike other business students in Europe and USA, Arab higher education business and economics students often appear to be on the disadvantage side of the complete acceptance of entrepreneurship as a result of: their culture, their academic background, the nature of Arab HE, the nature of the modules and lack of entrepreneurship training provided to them.

The primary review of the literature show that although there is a large number of studies that had been conducted on entrepreneurship and entrepreneurship education, only very few studies were conducted to investigate it in Arab higher education or Arab higher education business and economics students. Moreover, fewer studies were conducted to investigate its direct or indirect influence on students' attitudes towards starting a new business (El-Gohary, O'Leary and Radway, 2012).

Accordingly, and considering the present worldwide economic crises, the fact that entrepreneurial graduates can create a great change in the business environment, the arguments of entrepreneurship researchers that developed and developing economies requires more entrepreneurs that are willing to innovate and create new ventures to facilitate economic growth (El-Gohary, O'Leary and Radway, 2012 and Packham et. al., 2010), and keeping into consideration that the UAE government is working very hard to encourage UAE higher education institutions to develop able and talented graduates that have a wide variety of entrepreneurial and innovation skills that can be used in starting their own businesses, it is extremely important to investigate the influence of teaching entrepreneurship on business and economics degree courses in UAE and the impact of this teaching on students' attitudes towards starting a small business enterprise (SBE) or their own businesses.

By reviewing the related literature, it was found that while there are a huge number of research studies that were carried out on entrepreneurship and entrepreneurship education, only very few studies were carried out to examine its direct or indirect influence on students' attitudes towards starting a new business. The review of the literature showed that entrepreneurship education impact on students' attitudes towards starting an SBE or SME have several gaps in existing knowledge. For example, previous work conducted focused predominantly on developed countries (e.g. Moriano et al. 2011; Iakovleva et. al., 2011; Engle et al., 2010; Franco et. al., 2010; Packham et. al., 2010; and Liñán and Chen, 2009). As such, research is needed to examine the phenomena under investigation in developing and Arab countries.

2. Higher education in UAE:

Although the UAE higher education system suffers from some problems, such as quality, lack of Federal universities, etc. (Shaw, 1997), it is still considered as one of the best educational systems in The Cooperation Council for the Gulf Countries Council (GCC) which include: Saudi Arabia (KSA), Bahrain, Oman, Kuwait, and Qatar in addition to UAE. Higher education in UAE is mainly provided through a group of Federal institutions (8 institutions) as well as some Non-federal institutions (71 institutions in total).

The strategic goals for the Ministry of Higher Education in the United Arab Emirates are to:

- Provide opportunities for UAE nationals to attend the most prestigious universities in the world.
- Improve higher education performance levels in UAE.
- Improve the effectiveness and efficiency of private higher educational institutions in UAE.
- Update and upgrade the equivalency system for degrees/certificates in accordance with international academic standards.
- Support scientific research and encourage innovation.
- Improve the performance of the central managerial services according to quality, efficiency and transparency standards (Ministry of Higher Education in the United Arab Emirates, 2016b).

2.1 Higher education institutions in UAE:

The following tables and figures summarise the details of UAE higher education federal and non-federal institutions, HE licensed international branch campuses, distribution of UAE higher education institutions by type, and HE distribution of institutions by size and type.

Table 3: Higher education institutions in UAE

Emirate	Non-federal institutions			Federal institutions			Total
	Institute	College	University	Institute	College	University	
Abu Dhabi	6	13	7	0	2	1	29
Dubai	3	14	12	0	1	1	31
Sharjah	1	2	3	0	1	0	7
Ajman	0	2	2	0	0	0	4
Umm Al Quwain	0	1	0	0	0	0	1
Ras Al Khaimah	0	0	3	0	1	0	4
Al Fujairah	0	1	1	0	1	0	3
Total	10	33	28	0	6	2	79

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

Table 4: HE licensed international branch campuses

Emirate	Non-federal institutions			Total
	Institute	College	University	
Abu Dhabi	2	0	3	5
Dubai	1	1	3	5
Sharjah / Ajman / Umm Al Quwain / Ras Al Khaimah/ Al Fujairah	0	0	0	0
Total	3	1	6	10

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

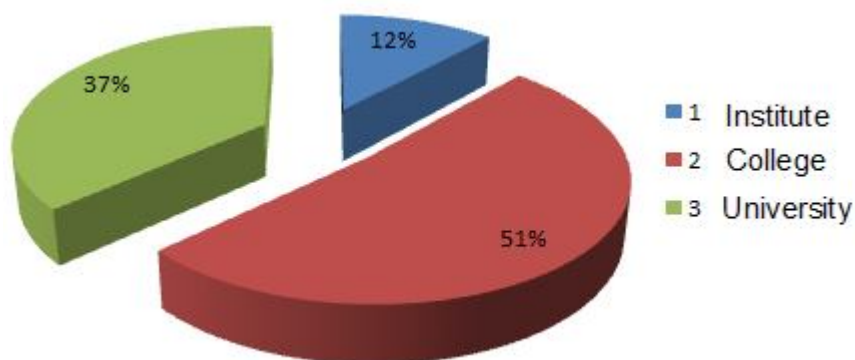


Figure 2: Distribution of UAE higher education institutions by type.

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

Table 5: UAE HE distribution of institutions by size and type

Size	Small	Medium Sized	Large	Total
	<1000 students	1000 – 4000 students	> 4000 students	
University	12	9	7	28
College	31	3	1	35
Institute	7	1	0	8
Total	50	13	8	71

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

2.2 Higher education students in UAE:

The following tables summarise the details of: UAE students' distribution by size and type of institution (in federal and non-federal institutions), as well as UAE HE students distribution by enrolment.

Table 6: UAE students' distribution by size and type of institution

Size	Small	Medium Sized	Large	Total
	<1000 students	1000 – 4000 students	> 4000 students	
University	6,214	19,664	61,305	87,183
College	7,899	7,758	21,169	36,826
Institute	2,616	1,654	0	4,27
Total	16,729	29,076	82,474	128,279

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

Table 7: UAE HE students distribution by enrolment

Type of institution	2008	2009	2010	2011	2012	2013
Federal	33,164	35,323	38,069	39,932	41,651	45,385
Non-federal	52,926	59,873	65,566	69,880	76,734	82,894
Total	86,090	95,196	103,635	109,812	118,385	128,279

Source: Ministry of Higher Education in the United Arab Emirates (2016a)

2.3 UAE HE Business Administration Programs:

The following tables summarise the details and distribution of UAE HE business administration programs (in federal and non-federal institutions), UAE HE institutions offering business administration programs, as well as distribution of UAE HE business administration students by programs.

Table 8: Distribution of UAE HE Business Administration Programs

Emirate	Diploma	Higher diploma	Bachelor	Graduate diploma	Master	Doctorate
Abu Dhabi	24	2	79	0	34	1
Dubai	10	1	60	0	44	4
Sharjah	5	0	22	0	8	0
Ajman	0	0	9	0	3	0
Umm Al Quwain	0	0	3	0	0	0
Ras Al Khaimah	0	0	10	0	2	0
Al Fujairah	1	0	9	0	0	0
Total	40	3	192	0	91	5
Accredited program	40	3	192	0	91	5

Source: Adopted from Ministry of Higher Education in the United Arab Emirates (2016a)

Table 9: Distribution of UAE HE Institutions offering Business Administration Programs

Emirate	Diploma	Higher diploma	Bachelor	Graduate diploma	Master	Doctorate
Abu Dhabi	7	2	13	0	10	1
Dubai	7	1	19	0	15	3
Sharjah	3	0	5	0	3	0
Ajman	0	0	2	0	1	0
Umm Al Quwain	0	0	1	0	0	0
Ras Al Khaimah	0	0	3	0	1	0
Al Fujairah	1	0	3	0	0	0
Total	18	3	46	0	30	4

Source: Adopted from Ministry of Higher Education in the United Arab Emirates (2016a)

Table 10: Distribution of UAE HE Business Administration Students by Programs

Students	Diploma	Higher diploma	Bachelor	Graduate diploma	Master	Doctorate
All students	3296	32	27235	0	5075	201
UAE nationals	1821	32	16028	0	2628	117

Source: Adopted from Ministry of Higher Education in the United Arab Emirates (2016a)

3. Entrepreneurship in higher education:

By reviewing the related literature, it was found that there are a notable number of research studies that had been conducted to investigate entrepreneurship education. Among these studies: Al-Ali (2014), Saleh and Salhieh (2014), Al-Harrasi, and Al-Salti (2014) and El-Gohary, O'Leary and Radway (2012), Iakovleva et. al., (2011), Kirby and Ibrahim(2011), Matlay(2011), Sandhu et. al., (2011), Davey et. al., (2011),Franco et. al., (2010) and Packham et. al.,(2010). It was also observed that although a substantial number of research studies were carried out in developed countries such as the UK, Germany, Australia, France, the Netherlands, Canada, Spain, and Norway (e.g. Moriano et al. 2011; Iakovleva et. al., 2011; Engle et al., 2010; Franco et. al., 2010; Packham et. al., 2010; and Liñán and Chen, 2009), there is scarcity in the literature examining the causal relationships between entrepreneurship education and business and economics students' entrepreneurial attitudes within these developed countries. Additionally, it was observed that there are very narrow literature examining and/or exploring entrepreneurship, entrepreneurship education as well as the causal relationships between entrepreneurship education and business and economics students' entrepreneurial attitudes in both developing countries and Arab countries.

In their study, Pittaway and Cope (2007) found (through a methodical review of the literature related to entrepreneurship education) that while entrepreneurship education definitely upsurgestudents tendency and intentions toward entrepreneurial related activities, it was unclear to what degreesuchimproved propensity is interpreted into actual real behaviour.They also found that there is a lack of agreementusually on what entrepreneurship or enterprise education truly is when applied in practice and/or in real life. Accordingly, entrepreneurship education may not essentially result in direct entrepreneurial activity (for instance a new business start-up);however, it mightenhance students' employability to existing firms.

In addition, one of the National Council of Graduate Entrepreneurship reports (EKOS, 2010) concluded that "graduates who have formal entrepreneurship training are more likely to display entrepreneurial skills that can drive innovation and change in a business environment" and that "entrepreneurship training offers a wide range of skills that are able to add value in a modern competitive global environment" (EKOS, 2010). Such National Council of Graduate Entrepreneurship report confirms the wider benefit to businesses as a whole of students having a good understanding, involvement and knowledge of entrepreneurship.

Moreover, in another report of the National Endowment for Science, Technology and the Arts (NESTA), the Council for Industry and Higher Education (CIHE), and the National Council for Graduate Entrepreneurship (NGCE), it was emphasised that entrepreneurship can help not only in transforming the business world but it also can have substantial potential for societal change (Herrmann, 2008). The report similarly demonstrated the possible benefits for students across the whole variety of disciplines and its influence on developing graduates with entrepreneurial mind-sets who can assistin imparting novelty, creativity, collaboration and risk-taking in all areas of both the private and public sector. Accordingly, entrepreneurship and entrepreneurship education can also be of great benefit to the public sector, social enterprises and charitable organisations in addition to businesses.In his research evaluating the link between enterprise and employability, Rae (2007b), found that any related learning experience must be applicable to the student's essential degree subject and be both inspiring and enjoyable. Hearsuggests that the emphasisshould be on developing entrepreneurial qualities rather than creating entrepreneurs. Such findings reinforce the fact that the potential benefit of entrepreneurship education is in the development of the characteristics of an entrepreneur within HEstudents' population rather than in the direct introduction of new businesses.

These qualities or capabilities are outlined in a self-assessment entrepreneurship toolkit that Rae introduced in his work later on (Rae, 2007a) which brings together entrepreneurial capabilities (such as: applying innovation, personal organisation, investigating opportunity, strategic venture planning, market development) and management capabilities (such as: managing finance and resources, leading and managing people, managing organisation and operations, responsible management). While there is great attention in the direction of entrepreneurship education in developed countries, only very few studies were conducted to examine and/or investigate entrepreneurship education in developing countries. Wu and Wu (2008); Bruton et al., (2008); Jones et al., (2008); Gird and Bagraim (2008); and Tkachev and Kolvereid (1999) are examples of such studies. Within this regard, Bruton et al., (2008) conducted a comparative study to investigate entrepreneurship education in more than one country to address the dissimilarity among developing and developed countries in entrepreneurship education.

Within the same line, Iakovleva et al. (2011) conducted a comparative study to investigate entrepreneurial intentions in developing and developed countries (a total of 13 countries, namely: Brazil, Australia, Mexico, Canada, Romania, Czech Republic, Russia, France, Ukraine, Germany, Norway, Spain and the Netherlands). Furthermore, Gird and Bagraim (2008); Jones et al., (2008); Tkachev and Kolvereid (1999); and Wu and Wu (2008) investigated entrepreneurship education in: South Africa, Poland, Russia, and China respectively. By reviewing the related literature, it was noticed that very few studies were conducted to investigate entrepreneurship education in Arab countries. Only four studies were found in this regard which are: the studies of: Al-Ali (2014), Saleh and Salhieh (2014), Al-Harrasi, and Al-Salti (2014) and El-Gohary, O'Leary and Radway (2012).

Within this regard, Al-Harrasi, and Al-Salti (2014) investigated entrepreneurial intention among Information Systems (IS) students in Oman through investigating the relationship between students (in Sultan Qaboos University) entrepreneurial intentions and their entrepreneurship education and government and private sector supportive programs. Employing a qualitative methodology they found that the majority of IS students in Sultan Qaboos University have low entrepreneurial intention, and that the main factors that have positive impact on their entrepreneurial intention were: money, independence, and work flexibility. Moreover, Al-Harrasi, and Al-Salti (2014) found that the lack of entrepreneurship courses in IS department within Sultan Qaboos University impacted on students' entrepreneurial intention negatively. They also found that Omani students are not well educated about the supportive programs provided by the government and/or private sector for entrepreneurs.

Saleh and Salhieh (2014) proposed a framework to identify the different factors that could influence the intention to become an entrepreneur among university students from four different Middle East countries (Jordan, Lebanon, Egypt, and Oman). Their proposed framework integrated different explanatory factors (psychometric variables, motivation to study entrepreneurship, perceived situation, and intention) to examine entrepreneurial intentions. Their findings supported the important role that a university could play at motivating its students to be entrepreneurial as well as the governmental role in creating a perceived climate that encourages entrepreneurship. This goes in line with the findings of Dyer (1994) and Kourilsky (1995) who indicated that entrepreneurship education at pre-college levels is very important in increasing interest in entrepreneurship and entrepreneurial ability.

Al-Ali (2014) conducted a study to see if graduates from the public authority for applied education and training in Kuwait meet market industrial requirements. According to Al-Ali (2014), there is a need to develop a proper labour strategy to ensure that graduates from the public authority for applied education and training in Kuwait are equipped with the required knowledge, skills and attitudes to meet industry and business needs. Meanwhile, El-Gohary, O'Leary and Radway (2012) investigated the impact of entrepreneurship online teaching on science and technology degrees on students' attitudes in developing economies through investigating the case of Egyptian students. They found that entrepreneurship online teaching attractiveness and updated knowhow have insignificant positive impact on students' attitudes towards starting a new business. According to El-Gohary, O'Leary and Radway (2012), entrepreneurship teaching delivery has significant positive impact on students' attitudes towards starting a new business which in turn have a positive impact on students' intentions towards starting a new business. Considering the review of the literature, there is no literature investigating entrepreneurship teaching and/or the causal relationship between entrepreneurship teaching and business and economics students' entrepreneurial attitudes in UAE which reflect a main gap in the field.

4. Research problem:

Considering the above and drawing upon the related literature, the central problem inspiring this research study is the great necessity to recognise and know the different influences of entrepreneurship education on business and economics degree courses students in UAE and the influence of such entrepreneurship teaching on students' attitudes concerning starting a small business enterprise (SBE) or their own businesses.

5. Research aims and importance:

By reviewing the related literature, it was found that while there are a great number of research studies that were carried out to examine the concept of entrepreneurship and entrepreneurship education, only very limited number of research studies were carried out to inspect its direct and/or indirect effect on students' attitudes towards starting a new business.

Hence, this study aims to add to the accumulative knowledge in the field of entrepreneurship and to build on the current body of knowledge in the field through investigating the influence of teaching entrepreneurship in business and economics degree courses in developing countries (i.e. UAE) and the impact of this teaching on students' attitudes towards starting a new business or a small business enterprise (SBE). Such examination will provide great aid towards attaining a profound and thoughtful understanding of entrepreneurship education practises by UAE universities which can help in understanding entrepreneurship education practises in other similar countries.

The key objective of this research is to achieve an enhanced understanding of how entrepreneurship teaching could possibly increase the tendency to start up a new business by students studying business and economics in Arab countries (with a main focus on UAE) and, possibly in the long run, those studying other disciplines as well. The aim is to introduce a research framework and instrument that can investigate the impact of teaching entrepreneurship on business and economics degree courses in UAE HE and its impact on students' attitudes towards starting an SBE or their businesses.

This research study will offer countless benefits for businesspersons, entrepreneurs, strategy creators, consultants, scholars, and educationalists through providing all these parties and stakeholders with a very clearer view and deep understanding of all the issues and matters related to the impact of entrepreneurship teaching on UAE business and economics students' attitudes towards starting a new business (or a SBE – SME). Furthermore, this research work enhances and adds to the very limited number of empirical studies that has been carried out to examine entrepreneurship education by developing countries and UAE HE universities. Using the research outcomes of this research and its findings, educationalists, academics and scholars in the field of entrepreneurship can have a richer sight to set their objectives towards appropriate forthcoming research studies which in turn will contribute to the related accumulated knowledge in the field.

6. Factors affecting entrepreneurial ability:

The following table summarise the different factors affecting entrepreneurial ability that had been investigated in previous studies in the field and as a result of the review of the related literature.

Table 11: Factors affecting entrepreneurial ability

<i>N</i>	<i>Factors</i>	<i>Studies</i>
Personal Characteristics:		
1	Creativity	Kurako (2004), Burke et al., (2002), Torrance(1962),
2	Imagination	Burke et al. 2002; Shackle 1979.
3	Degree of risk aversion	Asamani and Mensah (2013), Verheul et al. (2005),Kurako (2004), Stewart and Roth, (2001), Stewart et al. (1999), Begley (1995), Sexton and Bowman (1986), Sexton and Bowman (1985), Hull et al. (1980), Gürol and Atsan (2006), Cantillon (1931), Knight (1921),
4	Alertness	Verheul et al. (2005), Kurako (2004), Burke et al., (2002), Kirzner(1973), Kirzner(1979).
5	Motivation	Verheul et al. 2005, Burke et al., (2002), Perry et al., (1986), McClelland (1971), Rotter (1966),McClelland (1965), McClelland, (1961),
6	Innovation	Verheul et al. (2005), Schumpeter(1934).
7	Entrepreneurial self-efficacy	Wilson et al. (2007), Dyer (1994), Kourilsky (1995).
8	Self-confidence	Varghese and Hassan (2012), Turker and Selcuk (2009), Gürol and Atsan (2006).
9	Needs for achievements	Asamani and Mensah (2013), Ismail et al. (2012), Gürol and Atsan (2006).
10	Innovativeness	Gürol and Atsan (2006).
11	Age	Asamani and Mensah (2013), Kristiansen and Indarti (2004).
12	Gender	Asamani and Mensah (2013), Opoku-Antwi et al. (2012), Segumpan and Zahari (2012), Kristiansen and Indarti (2004), and Wang and Wong (2004).
13	Education	Asamani and Mensah (2013), Kristiansen and Indarti (2004).
14	Family background	Wang and Wong (2004).
15	Business experience	Kristiansen and Indarti (2004).
Educational Characteristics:		
1	Module Content	El-Gohary and Eid (2013).
2	Module Delivery	El-Gohary and Eid (2013), El-Gohary, O'Leary and Radway (2012).
3	Teaching Environment	El-Gohary and Eid (2013).
4	Attractiveness	El-Gohary, O'Leary and Radway (2012).
5	Updated Knowhow	El-Gohary, O'Leary and Radway (2012).
Environment:		
1	Political	Hajer and Habib (2013), Turker and Selcuk (2009).
2	Economical	Turker and Selcuk (2009).
3	Social and Cultural	Ismail et al. (2012), Turker and Selcuk (2009).

Source: The authors.

7. The research framework:

Based on the previous discussions and the review of the related literature, the research framework was constructed (figure 3) to investigate the research problem. The research framework examines the impact of the following factors on students' attitudes towards starting a new business or a small business:

Table 12: Factors affecting students’ attitudes towards starting a new business or a small business

<i>N</i>	<i>Factors</i>	<i>Sub factors</i>
A	Entrepreneurship Education	Module Content
		Module Delivery
		Teaching Environment
B	<i>Entrepreneurial Ability</i>	Age
		Motivation
		Risk Aversion

Meanwhile, the proposed research framework will be used to develop a research data collection instrument that can investigate the impact of teaching entrepreneurship on business and economics degree courses in UAE HE and its impact on students’ attitudes towards starting an SBE or their businesses.

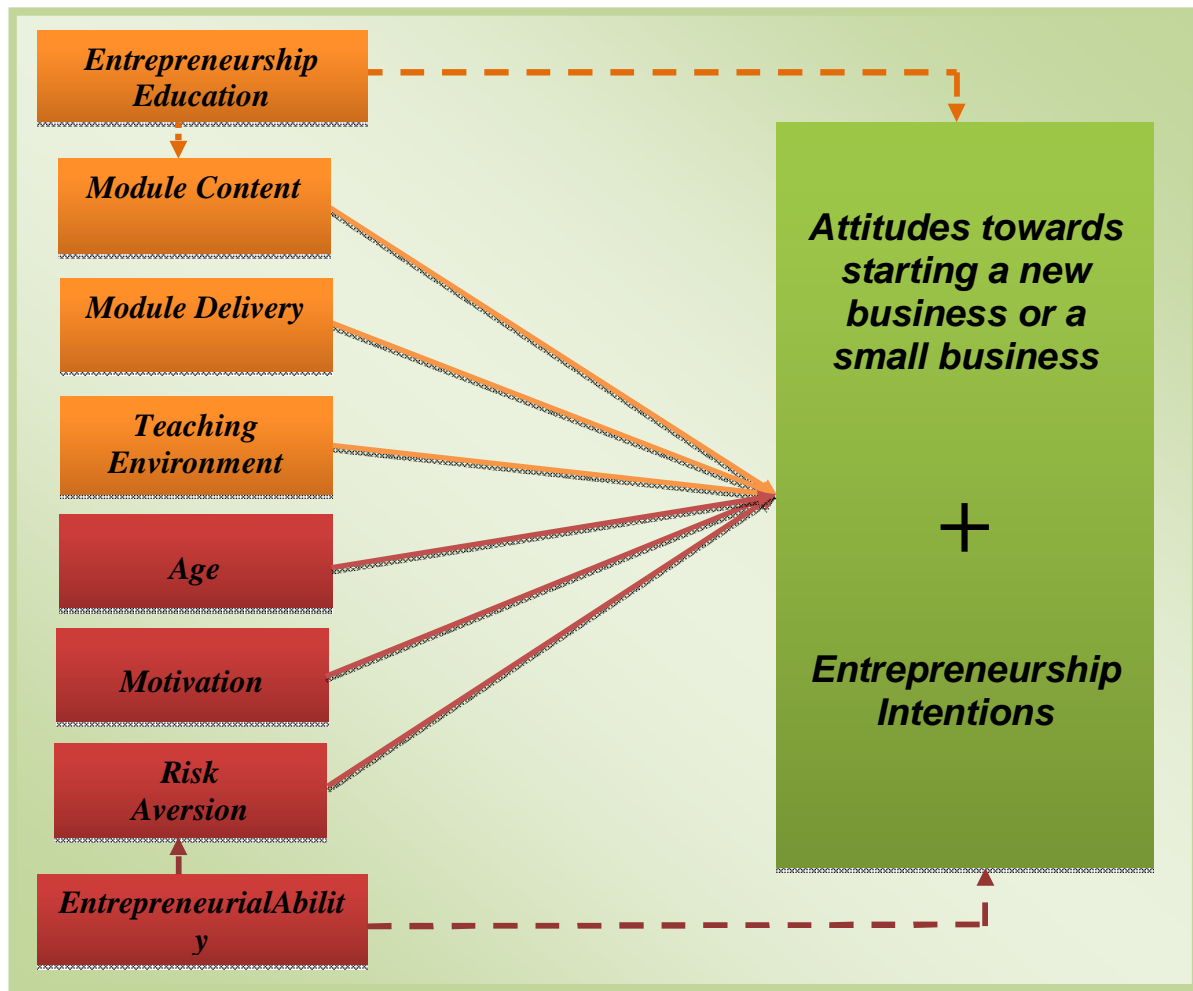


Figure 3: The research framework.

Source: The authors.

8. The research methodology:

The aim of using quantitative methodology here is to be able to offer careful generalisations of the research findings in an objective and ethical way as suggested by Denscombe(2002). Within this regard, each technique and/or methodology has its advantages and disadvantages, strengths and weaknesses (El-Gohary, 2010b). Accordingly, the researchers need to use the most suitable methodology to solve the research problem, answer the research questions, and reach general sable results. As such, for the purpose of conducting the current research study, it is believed that quantitative methodology is the most suitable methodology to be used. After developing the research instrument, it was tested and targeted a sample of the required population frame.

The research population frame consisted of students who are studying in a business and/or economics degree courses in any UAE HE university (unit of analysis). As the main aim of data collection was to test the reliability of the developed research instrument, the survey targeted a sample of 500 students studying in a business and/or economics degree courses UK that were selected randomly from students at four different universities in UAE. The developed research instrument was distributed and out of 500 questionnaires, a total of 266 questionnaires were returned with a response rate of 53.2 % which is considered to be a very high response rate among similar studies. This is mainly due to the careful follow-up by the research team and reminders that were sent to the research sample to complete the required developed research instrument.

9. The research instrument:

The development of the survey instrument was based mostly on adopted well-established scales that were previously developed as the research team identified some past studies directly addressing the phenomena under investigation in SMEs context. Validated measures that have been previously applied were used (such as the measures of entrepreneurship educational which was adopted from: El-Gohary and Eid (2013), El-Gohary, O'Leary and Radway (2012), the measures of intentions of starting a business which was adopted from: Iakovleva et al., 2011; Liñán and Chen, 2009; and Kolvereid, 1996 as well as the measures of attitudes towards starting a business was adopted from: Liñán and Chen, 2009; and Kickul and Krueger, 2004). However, some of the used measures and scales (entrepreneurial ability: age, motivation, and risk aversion) were new measures developed specially for this research; and where possible, these measures were adjusted to be suitable to the UAE and research context.

The instrument was pre-tested twice to guarantee that the research respondents will understand all the research measurement scales used in the study easily. Afterwards, the research survey instrument was piloted with a selective sample of the research participants. Based on the feedback provided, the instrument was modified to fully reflect the phenomena under investigation.

10. Analysis and results:

The following tables provide a clear illustration of the descriptive analysis for the data collected from the research sample.

Table 13: Distribution of the research sample by age

Age		Frequency	%	Valid %	Cumulative %
Valid	Less than 20 years	23	8.6	8.6	8.6
	20 - 22 Years	153	57.5	57.5	66.2
	More than 22 years	90	33.8	33.8	100.0
	Total	266	100.0	100.0	

Table 14: Distribution of the research sample by gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	140	52.6	52.6	52.6
	Female	126	47.4	47.4	100.0
	Total	266	100.0	100.0	

Table 15: Distribution of the research sample by university

University		Frequency	Percent	Valid %	Cumulative Percent
Valid	University A - Abu Dhabi	101	38.0	38.0	38.0
	University B - Dubai	80	30.1	30.1	68.0
	University C - Abu Dhabi	57	21.4	21.4	89.5
	University C - Sharjah	28	10.5	10.5	100.0
	Total	266	100.0	100.0	

Table 16: Age * Gender Cross-tabulation

		Gender		Total
		Male	Female	
Age	Less than 20 years	11	12	23
	20 - 22 Years	73	80	153
	More than 22 years	56	34	90
Total		140	126	266

Table 17: Age * University Cross-tabulation

		University			
		University A - Abu Dhabi	University B - Dubai	University C - Abu Dhabi	University C - Sharjah
	Less than 20 years	12	5	4	2
	20 - 22 Years	59	49	28	17
	More than 22 years	30	26	25	9
Total		101	80	57	28

Table 18: Gender * University Cross-tabulation

		University				Total
		University A - Abu Dhabi	University B - Dubai	University C - Abu Dhabi	University C - Sharjah	
	Male	55	41	32	12	140
	Female	46	39	25	16	126
Total		101	80	57	28	266

Meanwhile, reliability analysis was conducted depending on the calculation of coefficient alpha (Cronbach alpha) for the research measures and constructs. The results showed that all the research variables had a very good item-to-total correlation values and high reliability coefficient ranged from 0.817 to 0.830 with a Cronbach's Alpha Based on Standardised Items equal 0.827 (Table 13). The values of item-to-total correlation and Cronbach's Alpha are considerably and significantly higher than the reliability acceptable levels suggested by: Hamad, Elbeltagi and El-Gohary (2016), Hamad, Elbeltagi, Jones and El-Gohary (2015), Eid and El-Gohary (2015a), Eid and El-Gohary (2015a), Ahmed, Hay and El-Gohary (2015), Eid and El-Gohary (2014), Eid and El-Gohary (2013), El-Gohary, et al., (2013), El-Gohary, Edwards and Huang (2013), El-Gohary (2012), Millman and El-Gohary (2011), El-Gohary (2010a), El-Gohary (2010b), El-Gohary (2009), Edgett (1991), Magal et al., (1988) and Nunnally (1978).

Table 13: Research scales reliability analysis

Items	Coefficient Alpha analysis
A. Module contents	
A1 - Module Design:	
A11 - The entrepreneurship courses that I studied within my faculty/school are well designed.	0.829
A12 - The entrepreneurship courses that I studied within my faculty/school are well structured.	0.827
A13 - The contents of the entrepreneurship courses that I studied within my faculty/school are highly related to entrepreneurship theory.	0.828
A14 - The contents of the entrepreneurship courses that I studied within my faculty/school are interesting.	0.830
A2 - Content Attractiveness:	
A21 - The entrepreneurship courses that I studied within my faculty/school are attractive.	0.826
A22 - The entrepreneurship courses that I studied within my faculty/school are interesting.	0.819
A23 - The entrepreneurship courses that I studied within my faculty/school engaged me in a good way with business concepts.	0.826
A24 - Attending entrepreneurship courses that I studied within my faculty/school give me great satisfaction.	0.826

A3 - Contents Updates:	
A31 - The entrepreneurship courses that I studied within my faculty/school are updated.	0.819
A32 - The entrepreneurship courses that I studied within my faculty/school provide state of the art knowledge related to entrepreneurship.	0.820
A33 - After completing entrepreneurship courses that I studied within my faculty/school I am confident that I have the needed knowledge to start my own business.	0.825
A34 - The entrepreneurship course that I studied within my faculty/school are very old and does not reflect my needs.	0.825
B. Module Delivery:	
B1 - Module leader characteristics:	
B11 - My entrepreneurship module leader is highly qualified.	0.819
B12 - My entrepreneurship module leader is role model for me.	0.819
B13 - My entrepreneurship module tutor is a leader.	0.819
B14 - My entrepreneurship module leader is very friendly.	0.819
B15 - My entrepreneurship module leader has good personality.	0.819
B2 - Delivery Style:	
B21 - The entrepreneurship courses that I studied within my faculty/school were delivered by highly qualified academic staff.	0.819
B22 - The delivery of entrepreneurship courses that I studied within my faculty/school was interesting.	0.819
B23 - My entrepreneurship module leaders provided me with all the needed support to be involved with the modules.	0.819
B24 - I am satisfied with the delivery of the entrepreneurship courses that I studied within my faculty/school.	0.817
C. Teaching Environment:	
C1 - Teaching Aids:	
C11 - The faculty/school provided me with suitable teaching aids to support my entrepreneurship module.	0.820
C12 - The teaching aids provided by the faculty/school to support my entrepreneurship module were reliable.	0.825
C13 - The faculty/school provided me with a variety of teaching aids to support my entrepreneurship module.	0.827
C14 - The teaching aids provided by the faculty/school to support my entrepreneurship module were easy to use.	0.829
C2 - Module assessment:	
C21 - My entrepreneurship module assessment was fair.	0.820
C22 - My entrepreneurship module assessment was systematic.	0.820
C23 - My entrepreneurship module assessment was clear.	0.821
C24 - I received useful feedback about my entrepreneurship modules assessment.	0.820
C3 - University Support and Training:	
C31 - The faculty/school provided me with suitable support to finish my entrepreneurship module.	0.821
C32 - The faculty/school provided me with good guidance to complete my entrepreneurship module.	0.823
C33 - The faculty/school provided me with enough training to complete my entrepreneurship module.	0.821
C34 - The faculty/school provided me with enough resources to complete my entrepreneurship module.	0.822
D - Entrepreneurship Attitudes:	
D1 - Being an entrepreneur implies more advantages than disadvantages for me.	0.826
D2 - Being an entrepreneur would give me great satisfaction.	0.827

D3 - It is desirable for me to become an entrepreneur and start my own business.	0.826
D4 - It is interesting for me to become an entrepreneur and start my own business.	0.826
D5 - It is attractive for me to become an entrepreneur and start my own business.	0.827
D6 - My desire to become an entrepreneur and start my own business is mainly developed by the entrepreneurship courses that I studied within my faculty.	0.826
<i>E - Entrepreneurship Intentions:</i>	
E1 - I have very seriously thought about starting a firm.	0.827
E2 - I intend to start a firm within five years of graduation.	0.828
E3 - If I could choose between being self-employed or a business owner-manager (to work in your own firm) and being employed by someone, I prefer to be self-employed.	0.829
E4 - I am almost certain that within five years I will be running my own firm.	0.828
<i>F. Entrepreneurial Ability:</i>	
F1 - Age:	
F11 - I am too young to start my own business.	0.830
F12 - I still need to learn a lot of experiences to start a business.	0.829
F13 - I am old enough to start my own business.	0.829
F14 - Age is not a problem for starting a business.	0.830
F2 - Motivation:	
F21 - I am highly motivated to start my own business.	0.825
F22 - I would like to be a successful businessman/business woman.	0.819
F23 - I have my own objectives in life and I am going to achieve it.	0.819
F24 - I do not plan for the future and leave everything for its time.	0.825
F3 - Risk Aversion:	
F31 - I do not like taking any risks.	0.827
F32 - I prefer to take risks as with high risks I can have high gains.	0.826
F33 - I prefer to be an employee in a big organisation rather than starting my own business.	0.819
F34 - I look at risk as a challenge not as a negative thing.	0.827

Consequently, based on the results of the coefficient alpha (Cronbach alpha) - as well as item-to-total correlation, the research measures are satisfactory acceptable for conducting any further data analysis through inferential statistics to test any research hypothesis for any future research conducted to examine the proposed research framework.

11. Conclusion, limitations and recommendations for future studies:

The research proposed a research framework to be used in investigating, examining, and developing a research data collection instrument that can investigate the impact of teaching entrepreneurship on business and economics degree courses in UAE HE and its impact on students' attitudes towards starting an SBE or their businesses. Based on the results of data analysis, the research measures were found to be satisfactory acceptable for conducting any further data analysis through inferential statistics to test any research hypothesis for any future research conducted to examine the proposed research framework.

This research presents concise and pragmatic guidance that will assist HE institutions. Government and business support agencies may also benefit from this study in terms of accommodating the most appropriate support services for HE institutions to increase its entrepreneurship education efficiency.

As there are little number of studies that has investigated the impact and/or effect of entrepreneurship teaching on students' attitudes and intentions towards starting a new business in Arab countries, there is a need to conduct more research to investigate this impact in an Arab and/or developing countries context. The results of such studies could be compared with the results of this research. Moreover, the instrument developed by this research can be used as a base of conducting more research studies in the field.

Proposed future research studies in this area are innovative in many ways, among it:

- Any proposed research that investigate the different influences of teaching entrepreneurship on degree courses in developing countries and the impact of this teaching on students' attitudes towards starting a small business enterprise (SBE) or their own businesses will help in achieving a deep and reflective understanding of entrepreneurship teaching practises by universities in such countries.
- Such research studies will provide great benefits for different stakeholders such as:
 - o Businesspersons,
 - o Strategycreators,
 - o Consultants,
 - o Academics and scholars, and
 - o Educationalists

via providing a stronger view and profound understanding for all the different matters connected to the influence of entrepreneurship teaching on students attitudes towards opening a new business.

- Moreover, such research studies will add to the extremely limited number of empirical studies that has been conducted to investigate entrepreneurship teaching by developing countries universities.
- Depending on such research studies, educators, researchers and scholars in the field of entrepreneurship can have a clearer view to set their attitude towards suitable future research studies which in turn will contribute to the related accumulated knowledge in the field.

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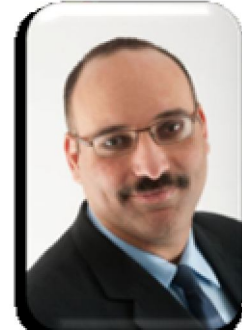
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