

An Empirical Study of Future Entrepreneurs – An International Investigation.

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The role of education in the creation of new firms is at the centre of the research outlined in this paper. Economic recession frequently is a fertile ground for new entrepreneurs to start small businesses. There has been increased policy and research interest in the growing number of female entrepreneurs and their potential contribution to both the local and global economy. This paper describes an initial empirical analysis of a comprehensive research project conducted in eight countries. In particular, it looks at the entrepreneurial education context to provide insight into the attitudes of first year business students towards entrepreneurship, entrepreneurs and the creation of new ventures in UAE. *An innovative questionnaire was developed and a convenience sample was used, with potential international partner universities.. From the 10 universities and colleges who were invited, eight universities and colleges took part in this research project. Data are collected at the international level (comprising Year-One students from Australia, Portugal, Finland, Germany, Slovenia, Poland, England and the UAE), there were a total of 860 students of which 510 were female respondents.* Initial findings demonstrate threads of commonality among female students with regards to entrepreneurs in all the different countries. The study found also that in UAE, the female students are very positive in becoming an entrepreneur and has generally a positive perception towards entrepreneurship. A comprehensive discussion of these findings is contained in the paper. Limitations of the study include the sample size of the UAE portion of the study. Whilst the overall international sample size (509 + 117 from UAE) provides a good basis for analysis, having 117 responses to the survey in UAE limits the analysis of the data in an UAE context. Further limitations to the study include the fact that a convenience sample was used in the selection of the universities chosen to participate in the survey. Given the limited understanding of such issues and very little literature review and research was available related to female students interest towards Entrepreneurship, this contribution seeks to provide an insight into the heterogeneous experiences of female students entrepreneurs using cross-national data rather than a one-country study.

Keywords - Entrepreneurs, Education, Employment and, Cross-cultural studies.

1. Introduction

Entrepreneurship which can be understood as ‘the mindset and process to create and develop economic activity’ (European Commission, 2003, p. 6) has significantly raised interest among practitioners, scientists and politicians over the last decades (OECD, 2007).

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This growing interest has been developed alongside different economic changes, such as globalisation (Gummesson, 2002) and the acceleration of technological development (Santoro & Chakrabarti, 2002). This has led to rapid changes in the competitive environment (Siguaw et al., 2003) with organisations more than ever needing to adapt to these changes and develop innovative products, services, processes and business models (Szerb, 2003). In today's economy entrepreneurship is seen as vital source for economic growth and competitiveness, job creation as well as wealth creation and providing societal interests (European Commission, 2003).

Given the critical nature of entrepreneurship, both academics and practitioners have increased their efforts in promoting an entrepreneurial mindset within the society (e.g. the "Oslo Agenda for Entrepreneurship Education"). Education has been confirmed as a vital component in the creation and continuing development of entrepreneurial attitudes (Gorman et al., 1997; Kourilsky and Walstad, 1998) and successful firms. While research has continued to grow exploring entrepreneurship education, our understanding of students outside the entrepreneurial education streams, or not yet entered into such stream, is still lacking. In this context students are seen as the primary resource of future entrepreneurs. Many studies have investigated entrepreneurial attitudes at specific universities already (Lüthje and Franke, 2003; Franke and Luthje 2004; Lena and Wong 2003; Teixeira and Forte 2008). However, due to the usage of different questionnaires, results are not comparable across universities and countries.

Hence, this empirical study is targeted at female business students in their first year of study, who have not yet been introduced to entrepreneurship in their studies. It aims to investigate the students' attitudes towards new venture creation, and to derive recommendations how to better promote and improve entrepreneurship education as part of more general business studies. While the results presented are part of a wider research project which investigated entrepreneurial attitudes of students in many different countries (e.g. Germany, UK, Finland, Slovenia, Portugal, Poland or Australia), this paper primarily focuses on the data collected at an UAE University. Findings relating to other countries are included as a comparison where suitable.

To provide a comprehensive overview, the paper covers a wide range of topics on entrepreneurship, including (1) the student's perceived image of entrepreneurs and entrepreneurship, (2) the student's level of interest in various entrepreneurship types, (3) the student's familiarity with entrepreneurship and where this familiarity comes from, (4) the factors influencing students in their decision of becoming an entrepreneur or employee, as well as (5) the ways how higher education institutions can foster the student's interest in entrepreneurship. Aiming to find similarities and differences in the data, comparisons using the student's age and experience with entrepreneurship as differentiation criteria are shown. Furthermore, the study compares the UAE results with the international average received from seven other countries.

Implications suggested to arise from the research include (1) improved methods for universities to foster entrepreneurial spirit and assist new venture creation with students, and (2) improved understanding of the propensity for students to undertake

entrepreneurial study and start a new venture. This includes better understanding of (a) the importance of entrepreneurship and entrepreneurs for students, (b) personal entrepreneurship capabilities in students, (c) how well students understand the reality of new venture creation, (d) students' interest in those indicators that indicate the propensity to undertake entrepreneurial activity, (e) interest in studying entrepreneurial concepts, and (f) tendencies for becoming an employee versus being self-employed. In addition, a discussion of the results were expected to lead to (3) areas of focus and improvement for the promotion of entrepreneurship spirit in universities, as well as (4) areas of further research.

The paper is organised as follows: The first section has provided an introduction to the reason for the study. The second section will review relevant entrepreneurship literature to give a background on the topic of the study. The third section will discuss the research design, defining the research questions to be examined, a framework for the study as well as justification and reasoning for the research method. The fourth section provides an overview of the most relevant results using the study framework. The fifth section will discuss the results to make the results more relevant in application and the last section will conclude the study with the key observations to be taken from the study including looking at both the supply-side and the demand-side of entrepreneurship education and finally recommendation for future study will be made.

2. Uae Background

Few countries in history have experienced, in less than four decades a huge shift in income and development comparable to that of the UAE during the last part of the twentieth century. The UAE developed a public national educational system in a thirty year period that is similar to what western countries established in over a hundred year period. Since the early 1960s the UAE emerged from relative obscurity in global affairs to become one of the wealthiest and most dynamic of the smaller countries of the world. Arab societies have always been patriarchal in nature. The prevalence of strict Islam makes them male dominated in all walks of life. Despite the modern face lift of their infrastructure and economies they have had, most Arab countries are still adamant when it comes to providing their women with equal opportunities as men. For example, in a country like UAE, which has a high level of female education, the ratio of female participation in the workforce is still very low. As per the officially made available data, about 70% of the UAE's university students were females, but their participation in the country's workforce was only around 20%. (khaleej times) With a booming economy and increased job opportunities, the UAE government was trying its best to empower their women with higher education and job placements. This has given rise to a sudden influx of the local women applying for jobs in various professions. One could see as a result, many young and confident Arab ladies taking up responsibilities on various fronts in the UAE today. From being radiologists to TV presenters or managing online ventures, the UAE's women are moving forward in all spheres gradually.

<u>Students of Colleges & Higher Education</u>								
Males	18520	36.59%	22350	34.56%	26350	37.01%	24810	35.57%
Females	32100	63.41%	42324	65.44%	44844	62.99%	44931	64.43%
Total	50620	100.00%	64674	100.00%	71194	100.00%	69741	100.00%
<u>Graduates of Colleges & Higher Education</u>								
Males	2215	31.04%	2956	28.83%	3309	28.84%	4614	35.06%
Females	4921	68.96%	7297	71.17%	8166	71.16%	8546	64.94%
Total	7136	100.00%	10253	100.00%	11475	100.00%	13160	100.00%

Source: Ministry of Economy, UAE.

However, the apparent success of women in the educational arena has not translated into comparable increases in employment rates. Labour participation increased from 1,086 females in 1975 (a mere 2.4%) to 49,000 females (22.3%) in 2006. However, there is a huge imbalance between males and females in the labour market. Private-sector employment has been largely dominated by male foreign workers, with less than 2 percent of Emirati nationals (both male and female) employed in that sector.

Table 2 - Labour Participation in UAE
POPULATION PARTICIPATION IN
LABOUR FORCE
UAE Citizens in Numbers

Year	Female	Male	Total
1975	1086	43545	44631
1985	3997	64322	68319
1990	9500	76900	86400
1995	15729	105562	121291
2005	46806	167514	214320
2006	49000	171000	220000

Source: Ministry of Economy, UAE.

The bleak picture of women and employment is not unique to the UAE but is a major issue in the Middle East and North African region, which has the lowest female labour participation rates in the world. A report published by the World Bank in February 2004,

Gender and Development in the Middle East and North Africa: Women in the Public Sphere, states that for the past decade, the region's governments have spent an average of 5.3 percent of the GDP on education, which is the highest allocation in the world. This huge investment in education has closed the gender gap, with women outnumbering men in higher education institutions in several countries in the Middle East and North Africa. But it has also resulted in the largest increase in rate of unemployment over the last decade - the female labour force participation in the region for the year 2006 stood at 22 percent, the lowest in the world.

As is the case in most countries, the national female workforce in UAE must be dealt with differently. Although educational needs can be attained in a female-friendly environment in the UAE, other factors like work environment, social interaction, physical job requirements cannot be adjusted quickly. Given the social, cultural, and religious fabric of the country's indigenous society and the rising number of female graduates, it seems that policymakers need to devise legislations and encourage work conditions that are conducive to greater absorption of its national female's workforce.

3. Research Design

3.1 Research Questions

Education has been confirmed as a vital component in the creation of successful new firms. Due to the influence that education has on the attitudes and aspirations of the youth, there is a need to understand how to develop and nurture potential entrepreneurs during their tertiary studies. Few empirical studies have examined the entrepreneurial propensity of university students as a source of future entrepreneurs (Wang and Wong, 2004). While research has continued to grow in entrepreneurship education, our understanding of students in respect to entrepreneurial education streams is still lacking. This empirical study thus aims to investigate student attitudes towards new venture creation, and to derive recommendations how to improve entrepreneurship education as part of more general business studies looking at both the supply and demand side of entrepreneurship education. While the research presented here only focuses on 1st year business students, future comparisons with final year business students as well as students from other scientific areas, such as engineering or computer sciences, are planned.

In particular, the research questions for this research project include:

1. What is the student's perceived image of entrepreneurs/entrepreneurship?
2. What is the student's level of interest in different entrepreneurship types?
3. How familiar are the students with entrepreneurship and where does the familiarity come from? Which competencies do the students have?
4. Which factors influence the student's decision between becoming an entrepreneur or employee?
5. How can universities and colleges foster the student's interest in entrepreneurship?

It is proposed that motivations for entrepreneurial activity differ between students of different gender and entrepreneurial experience. Hence, the paper focuses on two specific criteria in an UAE context: (1) Education and Entrepreneurial interest and (2) entrepreneurial experience (vertical factors), in order to test the likely influence that these factors have on the motivation of students towards entrepreneurial endeavours. These two factors will be cross-tested against the following factors (horizontal factors) to see what sort of a relationship, if any, exists between them: a) Understanding of the importance of entrepreneurship, b) Understanding of characteristics of entrepreneurs, c) Personal entrepreneurship capabilities, d) Understanding of new venture creation statistics, e) Interest in the signals for entrepreneurial activity, f) Interesting in studying entrepreneurial concepts, g) Tendencies for becoming self-employed versus being an employee, h) Tendencies for becoming an employee versus being self-employed, i) Tendency to become an employee of starting their own business, j) What can universities do to improve interest in new venture creation.

3.2 Research Method And Questionnaire Development

In order to investigate the research questions presented above, a descriptive, primary-quantitative method was applied. While exploratory and causal research explore circumstances resp. coherencies, descriptive research pictures 'specific details of a situation, social setting or relationship' and allows the researcher to examine a phenomenon of which there is little previous knowledge (Lowe, 2007). Facing the challenge of illustrating the status quo of student attitudes to new venture creation, a quantitative design was chosen. Reflecting the research questions as well as the international approach, a paper-based survey was identified to be the most appropriate research method. A paper-based survey was used in order to allow the survey to achieve high coverage as the questionnaires could be given directly to student and collected at the same time.

Based on a literature review, a standardised questionnaire was developed in order to investigate the research questions. The semi-final questionnaire was send to experts at potential partner universities as well as key contacts in the field of entrepreneurship to gain feedback and conduct individual pre-tests. After reviewing and integrating the comments, the questionnaire was tested by different students in order to detect and eliminate weaknesses in functionality and comprehensibility.

There were essentially three primary objectives that guided question design which related to:

1. Determining methods for universities to foster entrepreneurial spirit within students. The objective was to understand the types of positive and negative images that students had in relation to entrepreneurship. This information would be important in understanding how to better promote entrepreneurship.
2. Questions to get a better understanding of the propensity for students to undertake entrepreneurial study with the purpose of starting a new venture which included
 - a) Understanding of the importance of entrepreneurship,

- b) Understanding of characteristics of entrepreneurs,
- c) Personal entrepreneurship capabilities,
- d) Understanding of new venture creation statistics,
- e) Interest in the signals for entrepreneurial activity,
- f) Interesting in studying entrepreneurial concepts,
- g) Tendencies for becoming self-employed versus being an employee,
- h) Tendencies for becoming an employee versus being self-employed,
- i) Their own career assessment,
- j) Role of universities to improve interest in new venture creation.

3. Questions of demographic and classification nature - There was a particular emphasis given to the following five 'vertical characteristics' in order to compare them against the 'Topics of entrepreneurial propensity' mentioned above. These included:

- a) Age, b) Education, c) Country (or study), d) Work Experience *, e) 'Entrepreneurial Experience' **

* Taken directly from the students responses to 'Work experience' where they were asked to tick boxes indicating their participation in the following: (i) None (ii) Traineeship, (iii) Part-time job, (iv) Full-time job, less than 1 year, (v) Full-time job, more than 1 year and (vi) Other, please specify:

** Calculation of this figure combined answers to (i) 'Yes, I have founded _ company/ies' and 'I have taken steps to start a business' (given a weighting of 3), (ii) 'I worked for myself as a teenager eg. delivering papers, babysitting, mowing lawns etc' and 'I have been a freelancer or self employed' (given a weighting of 2), (iii) 'I have closely followed or assisted family members who have started companies' and 'I have closely followed or assisted friends or acquaintances who have started companies' (given a weighting of 1.5) and lastly (iv) 'I regularly read books / articles about entrepreneurship / innovation' and 'I participate regularly in conferences / lectures / workshops on entrepreneurship and/or innovation' (given a weighting of 1).

3.3 Data Collection Method

A convenience sample was used, with potential partner universities selected from the authors' contact database. The questionnaire has been developed by Todd Darly Australian professor as a part of global study. From the 10 universities and colleges where personally invited, eight universities and colleges took part in this research project. The country, number of responses as well as mean age of responses are reported in Table 3.

Table 3 – Primary Survey Respondents

Country	N	Mean Age
UAE	117	19.2

Germany	34	22.3
Australia	97	20
Finland	60	21.2
Slovenia	45	21.4
UK	105	21.3
Portugal	31	18.9
Poland	20	20.3
TOTAL	509	20.6

Paper-based questionnaires were handed out to first year business students during their lectures. Completed questionnaires were then collected and the hand-written data was digitalised and analysed. SPSS software was used to analyse data and to generate various reports relating to the study. An international survey base was determined to be necessary in order to widen the relevance of the study in respect to entrepreneurship education. It was expected that differences existed not only with regard to the approaches to entrepreneurship education in different countries, but also in relation to the beliefs, motivations and possible intentions of the students. An international perspective was also sought to create a benchmark from which entrepreneurship education could be compared with the potential to create some best practice recommendations, leading to shared learning across various countries and contexts.

4. Results

For the UAE component of the study, paper-based self-administered questionnaires were handed to 1st year business students at the Dubai Women's College during their lectures. Due to ethics regulations, the students were told that their participation in the project was voluntary – we got a good response of 117 completed questionnaires (a response rate of around 23%). At the international level (comprising Year-One students from Australia, Portugal, Finland, Germany, Slovenia, Poland, England and the UAE), there were a total of 860 students of which 510 were female respondents. For the majority of the questions, a Five-Point Likert scale was used where (1) was strongly disagree to (5) for strongly agree with the statement. For our analysis, we generated the means of each of the questions from the scales that were indicated by the students for each statement. A comparison of means was carried out in order to understand the similarities and dissimilarities in the opinions of the respondents.

For the remaining portion of our analysis, we will compare the responses of the UAE students to that of the international female respondents alone, in order to get a meaningful assessment.

4.1 The Sample

The sample of 117 respondents of UAE has the following characteristics. All the students were females since our questionnaire was administered only at Dubai

Women’s College. The ages of the respondents ranged from 17 to 25. But the majority of students (91.7%) were between the age group 18–20 years.

Table 4 – Age Distribution of UAE Respondents

Age	Number of respondents	%
17 years	1	0.9
18 years	22	18.8
19 years	52	44.4
20 years	33	28.2
21 years	4	3.4
21+ years	5	4.3
TOTAL	117	100.0

Majority of the students (48%) indicated that they had no work experience, and 29% had completed a traineeship. 8.5% of the students responded that they had “Other” work experience which included 3-day fair at the College, temporary summer job, voluntary work etc. 2 of the UAE students indicated that they have already started their own company and another 8 females had taken steps to start some business. (as can be seen in Table 10 below)

Table 5 – Work Experience of UAE Respondents

	Number of respondents	%
No work experience	56	47.9
Traineeship	34	29.1
Part time Job	10	8.5
Full time job ≤ 1 year	2	1.7
Full time job > 1 year	1	0.9
Others	10	8.5
No Response	4	3.4
TOTAL	117	100.0

4.2. Perceived Image Of Entrepreneurs / Entrepreneurship

The students were asked to give their opinion regarding the most important and positive way in which entrepreneurship would be considered as beneficial and they marked their opinion using the 5-Point Likert Scale. According to the UAE students, the most important contribution of entrepreneurship was ‘*Job Creation*’ (mean = 4.09) which also matched the international perception (mean = 3.97). Both the UAE as well the

international score was the lowest for the statement on the contribution of entrepreneurship to an *'increase in wealth of the poor'* (UAE 3.66; International 2.93).

The UAE students strongly felt that entrepreneurship contributes to society by assisting *'societal interests'* which scored a high mean of 3.89 but there was a contrast in the opinion at the international level where the females regarded gave more importance to entrepreneurship being *"crucial for competitiveness of an economy"*.

Table 6 - Perception Of Entrepreneurship

	UAE female students (117)		International female students (509)
Contributes to job creation	4.09	Contributes to job creation	3.97
Assists societal interests	3.89	Is crucial for competitiveness of an economy	3.83
Is crucial for competitiveness of an economy	3.83	Unlocks personal potential	3.62
Unlocks personal potential	3.77	Assists societal interests	3.44
Contributes to an increase in wealth of the poor	3.66	Contributes to an increase in wealth of the poor	2.93

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement.

The students then identified the characteristics that would be regarded as essential for a person to become a successful entrepreneur. Both the UAE females (mean = 4.23) and the worldwide females (mean = 4.28) believed that the successful entrepreneur must have *"passion, enthusiasm, initiative and persistence"*; should be *"willing to take big risks on a new idea"* (UAE 4.15; International 4.03) and should have *"an ability to spot the potential in an idea"* (UAE 4.10; International 4.16).

In a general sense, the responses of the UAE females were similar to their international counterparts in how they assessed the qualities of a successful entrepreneur.

Table 7 – Perception Of Entrepreneurs

	UAE female students (117)		International female students (509)
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Has passion, enthusiasm, initiative & persistence	4.23	Has passion, enthusiasm, initiative & persistence	4.28
Is willing to take big risks on a new idea	4.15	Has an ability to spot the potential in an idea	4.16
Has an ability to spot the potential in an idea	4.10	Is willing to take big risks on a new idea	4.03
Has a radically new idea for a new business	4.05	Has a radically new idea for a new business	3.88
Is a respectable person	3.81	Is a respectable person	3.52
Considers society's interest in their decision making	3.78	Considers society's interest in their decision making	3.45
Is willing to work within their current resources	3.71	Is willing to work within their current resources	3.31
Possess their own capital	3.44	Is willing to operate within the rules	3.13
Is willing to operate within the rules	3.41	Possess their own capital	2.97
Has a high IQ	3.30	Has a high IQ	2.76

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement.

An open question to understand the type of entrepreneurial role models that came to the mind of the students. With respect to the international comparison, it was found that each country had specific role models from their region. At an international level, we considered the responses of "rest of the world" by taking the responses of UAE students separately and then taking the seven other countries. Only the top 8 responses were taken for our analysis. Bill Gates of Microsoft was most commonly nominated at the international level but the responses amongst the UAE female students were skewed in favor of their regional successes. Amongst the UAE students, the Ruler of Dubai, H.H. Mohammed bin Rashed was considered as the most prominent role model with 49% of the votes. The second position in the UAE went to the President of Emaar Real Estate, Mohammed Al-Abaar who got 18 votes out of 82 (22%). Only 6 of the UAE female students (7%) selected Bill Gates as their role model entrepreneur while Bill Gates received the highest nomination from the rest of the world, especially from Australia, Portugal, Poland and Slovenia. At the international level, the second position went to Belmiro Azevedo but the entire votes (27) came in from Portugal.

Table 8 – Role Models In Entrepreneurship

	UAE female students (82)		“Rest of the world” female students (131)
H.H Mohammed bin Rashed	40 (48.8%)	Bill Gates	50 (38.2%)
Mohammed Al Abaar	18 (22.0%)	Belmiro Azevedo	27 (20.6%)
Bill Gates	6 (7.3%)	Richard Branson	16 (12.2%)
Richard Branson	5 (6.1%)	Sheikh Mohammed	12 (9.2%)
Mohammed Saeed Harib	4 (4.9%)	My father	7 (5.3%)
My father	3 (3.7%)	Steve Jobs	7 (5.3%)
Me	3 (3.7%)	Alan Sugar	6 (4.6%)
Juma Mayid Al Futtain	3 (3.7%)	Roman Abramovich	5 (3.8%)

A further open question sought to know the type of firms that they thought were entrepreneurial. We have taken the top 10 answers for our discussion. Here too, there was a definite bias in favor of local entities. Virgin and Microsoft found high nominations amongst students in the UAE as well as their international counterpart. At the same time, we found that all the nominations for Sonae came from the students of Portugal and similarly Emaar was named only in the UAE. The top three entrepreneurial firms nominated by the UAE female students were Emaar (46%); Virgin (14%) and Microsoft (11.5%) while the top 3 firms named by the “rest of the world” were Microsoft (29%), Sonae (14%) and Virgin (11%). When we further analyze the results it shows an interesting finding that most of the female are biased with male entrepreneur. About 90% of the female students in UAE and 80% of the female students in the rest of the world favors male entrepreneur as their role model.

Table 9 – Entrepreneurial Firms

	UAE (Total 78)		Rest of the world (Total 184)
Emaar	36 (46.2%)	Microsoft	54 (29.3%)
Virgin	11 (14.1%)	Sonae	25 (13.6%)
Microsoft	9 (11.5%)	Virgin	20 (10.9%)

Al Futtaim Group	5 (6.4%)	Nokia	17 (9.2%)
McDonald's	3 (3.8%)	Google	13 (7.1%)
Dubai Holding Group	3 (3.8%)	Apple	12 (6.5%)
Fatamy Bakery	3 (3.8%)	Coca-Cola	9 (4.9%)
Nakheel	3 (3.8%)	Tus Mobil	9 (4.9%)
Sheikh Mohd Establishment	3 (3.8%)	Akrapovic	7 (3.8%)
Ikea	2 (2.6%)	McDonald's	6 (3.3%)

4.3 Entrepreneurial Status Amongst The Students

The students were asked about their intentions of starting an entrepreneurial venture. They had to mark their preferences on a Likert Scale of 1 to 5 ranging from strongly disagree to strongly agree. Once again, we take the responses of the UAE female students and compare it to the "rest of the world" female students. Both for the UAE and the international students, the majority of the students said that they '*could imagine starting a company*' (UAE 33%; International 58.5%). 25% of the UAE female students responded that they had an '*entrepreneurial idea which they believed could be successful*' and another 21% said that they were '*currently thinking*' about an entrepreneurial idea. In complete contrast to this finding, a high 19% of the other international students responded that they had '*no interest*' in starting a company and only 7% responded that they were thinking about it. 10 out of the 116 (9%) UAE female students had already '*taken steps to start a business*' or had already founded their companies. However, amongst the "rest of the world" first year students, 3 out of 393 had founded their companies but nobody else had taken any steps to start their own business.

This was a strong finding to show that the entrepreneurial drive is much stronger amongst the females of the UAE, even at an early stage of their 1st year of college.

Table 10 - Entrepreneurial Interest

	UAE (Total 116)		REST OF THE WORLD (Total 393)
No, but I could imagine starting a company	38 (32.8%)	No, but I could imagine starting a company	230 (58.5%)
No, but I have an idea which I believe could be successful	29 (25.0%)	No and I have no interest to do so	73 (18.6%)
I am currently thinking about it	24 (20.7%)	No, but I have an idea which I believe could be successful	58 (14.8%)
No and I have no interest to do so	15 (12.9%)	I am currently thinking about it	29 (7.4%)
I have taken steps to start a business	8 (6.9%)	Yes, I have founded my own company	3(0.8%)
Yes, I have founded my own company	2 (1.7%)	I have taken steps to start a business	0 (0.0%)

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

The students were further asked how they regarded their personal capabilities regarding starting their own business, which they rates on a 5-Point scale. For each statement, a score of more than 3 (>3) was positive while scores less than 3 was taken as negative. It is noteworthy that the UAE female students gave a positive rating of >3 to each and every statement that was asked while at the international level, there were negative ratings for two sentences – *'I know techniques for finding out what the market wants'* and *'I know how to legally finance a new business concept'*. Further, the mean score ratings were much higher for the UAE female students when compared to their international counterparts. There was a high mean rating of 3.56 for *'I can create a business plan and a business concept'* from the UAE students while the same statement received a mean score of 3.08 amongst the worldwide group. This emphasizes our finding in the previous table, that the UAE females showed more interest and capability in their entrepreneurial endeavors and also that they believed they were capable of creating their business plans, concepts, ideas, finances and techniques of starting their own companies. The international students did not show the same level of entrepreneurial capability and interest – which is apparent from their lower scores.

Table 11 - Entrepreneurship Capabilities

UAE (Total 117)	INTERNATION AL (Total 509)
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I can create a business plan and a business concept	3.56	I understand the type of issues that confront an entrepreneur in taking an idea to market	3.22
I understand the type of issues that confront an entrepreneur in taking an idea to market	3.41	I can create a business plan and a business concept	3.08
I know techniques for finding out what the market wants	3.34	I know techniques for finding out what the market wants	2.99
I know how to legally finance a new business concept	3.21	I know how to legally finance a new business concept	2.87

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

4.4 Understanding New Venture Creation

The students were asked to give an estimate of how many entrepreneurial firms they thought survived longer than 5 years. The international students believed that 45% of entrepreneurial firms lasted more than 5 years while UAE students thought that 59% of the start-up firms survived more than 5 years. So, the confidence level of the UAE students was definitely higher than that of the international students. The age the average entrepreneur starting a new business was estimated by the UAE students at 23 years while internationally the estimate was 28 years. In contrast, research shows that only 2.4% of business in the USA were started by people under 24 years of age with the most common age for starting a business being between 35 and 44 (Shane, 2008).

In relation to the gender of entrepreneurs, UAE students stated that they thought that 40% of entrepreneurs were women compared with the international idea of 34% women being entrepreneurs. This revealed that the UAE females were more positive about their success as an entrepreneur than their international peers. In order to test the understanding of the students with respect to start-up companies, they were asked '*How much starting capital do you think the average entrepreneur needs to start their new venture*'. There was a very significant difference in the answers – on average, the worldwide female students estimated that entrepreneurs needed \$US 8,137,612 compared to the UAE female students estimating \$US 304,895. Internationally there are some countries where new business is required to either deposit a set amount of money in a designated account or have a certain amount of cash in reserve to start a business. Based upon US data, Shane (2008) highlights if a firm starts with \$US100,000, the firm is likely to survive and grow. Based on this empirical estimate, we can surely conclude that the UAE were closer to the mark while their worldwide peers did not have an idea of the capital required for a starting entrepreneur.

Table 12 - Perception Of Female Students About New Ventures

	UAE	TOTAL
Survival of new firms > 5 years (%)	59.4 (104 responses)	45.4 (482 responses)
Age of average entrepreneur starting new business (years)	23.0 (105 responses)	28.0 (493 responses)
Percentage of Female entrepreneurs (%)	40.4 (98 responses)	33.9 (489 responses)
Starting capital for an entrepreneur (in US \$)	304,895 (92 responses)	8,137,613 (399 responses)

4.5 Familiarity with Entrepreneurship

The next few questions were asked to find out the familiarity of the students with entrepreneurship and where did their familiarity come from. Some statements were given to them to understand their level of familiarity and a 5-point Likert Scale ranging from (1) strongly disagree to (5) strongly agree with the statement was used for the analysis. The mean score was calculated based on the ratings from each of the responses. We found that the maximum mean score for the UAE females were found to have gained familiarity with entrepreneurship through '*reading books and articles*' regularly (mean = 2.91). Working for themselves as teenagers was not common in the UAE amongst females (mean = 2.47). In complete contrast, the international females were found to have gained their knowledge by working when they were teenagers which had the highest score (mean = 2.83). Interestingly, although the UAE female students had not worked themselves as teenagers, they indicated that they had assisted their family members or their friends to start a company and the mean scores for both were much higher than the international students.

Table 13 - Interest In Signals For Entrepreneurial Activities

UAE (Total 115)	INTERNATIONAL (Total 508)
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I regularly read books / articles about entrepreneurship	2.91	I worked for myself as a teenager	2.83
Assisted Family Members to start a company	2.87	I regularly read books / articles about entrepreneurship	2.49
Should not start a company since it might fail	2.75	Should not start a company since it might fail	2.48
Assisted Friends to start a company	2.74	Assisted Family Members to start a company	2.42
I have been a freelancer / self employed	2.52	Assisted Friends to start a company	2.20
I worked for myself as a teenager	2.47	I participate in conferences / lectures / workshops on entrepreneurship	2.08
I participate in conferences / lectures / workshops on entrepreneurship	2.43	I have been a freelancer / self employed	1.90
Previous self-start company went bankrupt	2.27	Previous self-start company went bankrupt	1.64

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

The female students were probed regarding their education in entrepreneurship. They were given three statements regarding nominated areas which they had to rank on a five point scale where 3 was neutral; > 3 showed agreement with the statement and <3 indicated disagreement. The three statements regarding entrepreneurship that they were asked to rate were

- Starting a new business from an idea
- Entrepreneurship using research
- Entrepreneurship within an existing company

The average score of the responses from the UAE first year female business students were positive with '*Starting a new business from an idea*' getting a high mean score of 4.15 out of 5. The same statement got the highest mean score amongst the international females as well, but their rating was lower at 3.56 out of 5. When comparing the UAE results of the survey with the international survey results, UAE females expressed higher interest and agreement in each of the factors than females internationally, although their ranking was similar.

Table 14 - Studying Entrepreneurial Concepts

UAE (113)	INTERNATIONAL
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		(506)
Starting a new business from an idea	4.15	3.56
Entrepreneurship within an existing company	3.55	3.49
Entrepreneurship using research	3.43	3.26

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

4.6 Decision About Being An Entrepreneur Versus An Employee

The students were first asked to nominate the primary reasons why people would choose to be an employee rather than being self-employed. A point of (1) indicated their strong disagreement with the statement while (5) was strong agreement with the statement. A score of below 3 indicates disagreement with the statement. The UAE students nominated that '*social security and/or insurance*' was the primary reason for choosing to be employee rather than being self-employed while they disagreed with the statement that people chose to be an employee due to '*Lack of an entrepreneurial idea*'. In contrast, '*lack of an entrepreneurial idea*' got a positive nomination (mean = 3.03) from the international students.

Table 15 - Being An Employee Rather Than Being An Entrepreneur

	UAE (Total 115)		INTERNATIONAL L (Total 505)
Social security and/or	3.59	Job security / stability of	3.69

insurances		employment / stable income	
Too much workload when self-employed	3.57	It is not as risky as being self-employed	3.59
It is not as risky as being self-employed	3.54	Social security and/or insurances	3.41
Job security / stability of employment / stable income	3.54	Lack of finances for self-employment	3.39
Being an employee is the most suitable option for my future profession	3.31	Too much workload when self-employed	3.38
Severity and/or irreversibility of the decision	3.30	Red tape / administrative barriers	3.13
Red tape / administrative barriers	3.28	Severity and/or irreversibility of the decision	3.10
Lack of finances for self-employment	3.19	Lack of an entrepreneurial idea	3.03
Having colleagues / too lonely being self-employed	3.13	Lack of knowledge / familiarity with regards to self-employment	3.01
Lack of knowledge / familiarity with regards to self-employment	3.10	Being an employee is the most suitable option for my future profession	2.96
Lack of an entrepreneurial idea	2.99	Having colleagues / too lonely being self-employed	2.73

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

The students were then asked to nominate the reasons for tendencies of becoming self employed rather than being an employee. A similar Likert scale rating was used as above to rank their opinions. The tendencies for being self-employed over employed provides potential points for promotion of entrepreneurship with business students. The highest three scores amongst the UAE first year female business students were registered for '*Personal independence / Managing own time*', '*I have an idea than can be a business opportunity*' and '*More interesting work*' in that order. The responses were quite similar amongst the international first year female students as well. 'It is a 'normal thing to do' recorded the lowest rating but the UAE females did not disagree with any of the statements given below.

An interesting contrast between the UAE females and the international females was that it was a natural phenomenon for these students to witness their family members or friends who are self employed and have shown entrepreneurial capabilities. They find that a successful entrepreneur in the family or amongst friends is a good reason to influence others into being self employed. However, amongst the international students,

the students disagreed with the fact that family or friends being self employed might provide an impetus for others.

Table 16 - Being An Entrepreneur Rather Than Being An Employee

	UAE (Total 114)		INTERNATIONAL (Total 507)
Personal independence / Managing own time	4.06	Personal independence / Managing own time	4.07
I have an idea that can be a business opportunity	3.90	Possibilities for self-fulfillment	3.99
More interesting work	3.89	More interesting work	3.73
Having your own business is the most suitable option for my profession	3.87	Better income prospects	3.64
Better income prospects	3.79	More prestigious than being an employee	3.51
Possibilities for self-fulfillment	3.79	I have an idea that can be a business opportunity	3.29
More prestigious than being an employee	3.61	Having your own business is the most suitable option for my profession	3.25
Family / friends are self- employed	3.59	To avoid uncertainties related to employment (e.g. being unemployed)	3.13
No need to adapt to a business environment	3.48	Lack of attractive employment opportunities	3.10
To avoid uncertainties related to employment (e.g. being unemployed)	3.46	It is a "normal thing to do"	2.91
Lack of attractive employment opportunities	3.34	Family / friends are self- employed	2.85
It is a "normal thing to do"	3.30	No need to adapt to a business environment	2.77

The first year female students were then asked to assess themselves on their future career path. They were asked to choose one of the following sentences, to indicate their tendency of becoming an employee versus starting their own business.

- a) Being an employee (strongly negative)
- b) Tendency towards employee (negative)

- c) Neutral
- d) Tendency towards business (positive)
- e) Being an entrepreneur (strongly positive)

The following table gives the count of the students who responded to these sentences.

Table 17 - Future Career Assessment

	UAE (82)	REST OF THE WORLD (363)
Being an employee	10 (12.2%)	21 (5.8%)
Tendency towards employee	5 (6.1%)	82 (22.6%)
Neutral	28 (34.1%)	136 (37.5%)
Tendency towards business	17 (20.7%)	103 (28.4%)
Being an entrepreneur	22 (26.8%)	21 (5.8%)

There is a definite strong tendency of the UAE female students which is clearly perceptible from the responses above. An overwhelming 26.8% of the UAE first year females showed a strong positive tendency to become an entrepreneur in the future – against a 5.8% response from the females from the other countries.

4.7 Role Of Universities To Foster New Ventures

The students were asked how their Universities might have helped to foster or improve the interest in the creation of new ventures by their students.

Table 18 - How Universities Can Foster The Interest Towards New Ventures

	UAE (Total 116)		INTERNATIONAL (Total 392)
Provide students with ideas to start a new business	4.17	Bring students in contact with the network needed to start a new business	3.89
Offer a bachelor or masters study on entrepreneurship	4.11	Bring entrepreneurial students in contact with each other	3.82
Allow companies run by students to use university services	4.11	Offer project work focused on entrepreneurship	3.75
Bring students in contact with the network needed to start a new business	4.04	Provide students with ideas to start a new business	3.74
Bring entrepreneurial students in contact with each other	4.03	Arrange conferences or workshops on entrepreneurship	3.67
Arrange conferences or workshops on entrepreneurship	3.97	Offer a bachelor or masters study on entrepreneurship	3.63
Provide students with the financial means needed to start a new business	3.90	Allow companies run by students to use university services	3.63
Offer project work focused on entrepreneurship	3.87	Provide students with the financial means needed to start a new business	3.56
Create more awareness of entrepreneurship as a possible career choice	3.84	Create more awareness of entrepreneurship as a possible career choice	3.54

NB. A five point Likert Scale was used: (1) strongly disagree to (5) strongly agree with the statement

5. Discussion, Implications And Conclusion

5.1 The Study's Contribution To The Promotion Of Entrepreneurship In Universities And Colleges (Demand Side)

A primary focus of this paper was on 'how can entrepreneurship be promoted to students'. The paper found many entry points for entrepreneurship promotion. The study found that in UAE the female students are very positive in becoming an entrepreneur and there was generally a positive perception of entrepreneurship and entrepreneurs within first year business students internationally. In respect to entrepreneurship, its contribution to job creation in the economy and being crucial for economic competitiveness could be points of entrepreneurship promotion with students whilst on a more individual basis, promotion of its proven ability to unlock personal potential could also be a promotional message used. Further, promotion of some of the lesser known (but recognized in literature) contribution of entrepreneurship such as 'contribution to the poor' could also prove advantageous.

In times of recession when there is a reduction in employment opportunities globally this study is very important. We found out from our research that generally female students are very positive, which makes them think about alternative ways of creating new jobs. In the current environment we can see budding entrepreneurs with new ideas. There are plenty of opportunities for new business and this research will open up new areas in future. Further, there is an opportunity to promote to students the positive characteristics found in this study towards entrepreneurs. Some of the characteristics named in 'tendencies for being a self-employed over employed' such as 'personal independence' or 'possibilities for self-fulfillment' are other promotional points for consideration.

Promotion of entrepreneurship could be facilitated potentially through the use of role models. Role models have proven to be a positive effect on entrepreneurial intentions, whilst 'In the absence of entrepreneurial role models, economic agents are not as propelled to take the different decisions needed to become an entrepreneur' (Lafuente, E., Vaillant, Y., Rialp J. 2007, pp 779-795). The study found that local entrepreneurs were often named as role models by the international students, whilst the UAE students named mainly UAE examples. A further point of interest is that despite having low 'entrepreneurship experience' students still were found to have a high interest in studying entrepreneurship and / or potentially pursuing an entrepreneurial career. Whilst the data did not show conclusively that increasing the 'entrepreneurial experience' of students would subsequently increase the amount of students wanting to study entrepreneurship or pursue an entrepreneurial career, it is a method of teaching worth considering and an area for further research.

Promotion of the benefits of entrepreneurship specifically for female students is a further area of focus for entrepreneurship education. In the study, it was found that female students in UAE generally had very high interest in studying entrepreneurial concepts (see 'interest in studying entrepreneurial concepts') even though their education is developed over only a 35 year period. The high percentage of female getting education is also one more reason for their awareness towards entrepreneurship. Specific themes that could be used to promote entrepreneurship to females such as promoting the flexibility of work schedule that will allow them to take care of family responsibilities (Shane, 2008). However, following Shane (2008), education of entrepreneurs could

endorse that age is a crucial factor in the likely success of new firms with firms started by entrepreneurs aged 45-54 more likely to succeed on average than those started by those under 35. Industry experience, professional and personal development before the entrepreneur commenced their business has also been shown to also increase likely to prosper, be more profitable and grow (Shane, 2008). Rather than to deter the would-be entrepreneur, this data could be used to create a more realistic understanding of how to be a successful entrepreneur. A final comment in respect to promotion of entrepreneurship is that a realistic promotion of the benefits of entrepreneurship is required because promoting false myths about entrepreneurship is also not helpful to potential entrepreneurs. Similar in nature to investing in shares or property, it is valuable to know realistic estimations of your likely success in starting a new venture and to understand the risks involved to enable mitigation strategies to be considered.

Given the social, cultural, and religious fabric of the country's indigenous society and the rising number of higher education female graduates, it seems that policymakers need to devise legislations and encourage work conditions that are conducive to greater absorption of its national females workforce. Several factors in our research shows that the emirati female are highly motivated and interested in starting new business which can contribute to greater absorption of female labour. There have been several programs launched in the UAE that encourages entrepreneurship among nationals. In future the government should plan for tailormade programs that is designed and dedicated to females which will increase their employment opportunities. We found out from our research that the female students are willing to start new ventures. It will be more effective if government can support and motivate them so that the emirati female can become a successful entrepreneur. One of the existing program which helps entrepreneur is the Mohammed bin Rashid Al Maktoum Foundation

The main Objectives of the Mohammed bin Rashid Al Maktoum Foundation is to

- Develop and nurture a generation of future leaders in government, the private sector and civil society
- Elevate research, knowledge creation and the infrastructure of higher education to international standards
- Stimulate employment and entrepreneurship and empower young people to innovate

5.2 The study's contribution to the improvement of more student orientated entrepreneurship programs in Universities (supply side)

The paper provides various insights into how entrepreneurial education can be further tailored to students in order to increase interest in entrepreneurship. The development of students 'entrepreneurship capabilities' could potentially be facilitated by focus on the

factors identified in 'Entrepreneurial Status' including: 'techniques for finding out what the market wants', 'understanding the type of issues that confront an entrepreneur in taking an idea to market', 'creating a business plan and a business concept and 'legally finance a new business concept'. Students assessed themselves generally to neither 'have', nor 'not have' the capabilities in these areas, which is understandable given they are first year students. However these skills have been found to be important in creating successful new ventures and therefore this creates an opportunity for improving entrepreneurship skills and knowledge.

Despite this medium rating students gave themselves and the fact that students had low 'entrepreneurial experience', students expressed high interest in entrepreneurial topics. This result should provide a measure of confidence for educators that students are recognizing the importance of knowledge and skills in entrepreneurship. The opportunity for students to study a single module (within another subject), as a separate subject, minor or major would seemingly be welcomed by students. Firms established by those entrepreneurs with prior entrepreneurship experience has also been shown to also increase likely to prosper, be more profitable and grow (Shane, 2008). The implications for entrepreneurship education, which aligns with the opinions of students in the survey, a focus on practical experience with entrepreneurship education could be facilitated. The section titled 'What can universities do to improve interest in new venture creation?' provides fodder for those educators looking to improve the acquisition, education and success of future-entrepreneurs.

Three factors can be blamed for the low labor force participation rates of Emirati women. The first factor relates to the family, which is often labeled as the primary socioeconomic unit in the Arab world. The family plays a central role in the life of both men and women and is the sole institution through which individuals inherit their religion, social class, and cultural identities. Family interest overrides individual interest, and the family greatly affects the individual's attitude and choices. Family attitudes about female employment and a woman's ability to combine both work and family responsibilities are often identified as key to accessing work and remaining within the labor force. The second element, closely related to the first, deals with the social conditions women need to comply with under the "code of modesty," which calls for the segregation of men and women in the quest to guard family honor. This code is adhered to in varying degrees by different groups within the society and confines women to seeking work in predominantly female work environments, such as schools.

The third and final element refers to the competition of women for public-sector employment and their strong preference for civil service careers. This preference is due to civil service laws that protect indigenous workers and make it difficult for employers to dismiss them without a legal battle. Emirati women have made exceptional strides in terms of overcoming cultural and social barriers and are entering the labor market in increasing numbers. Female students are also achieving impressive results in their studies, outstripping their male counterparts at every level. Indeed, they can be seen as

potential cornerstones of the UAE economy in the future. However, for this to become reality they need to be encouraged in their efforts and the remaining barriers to their progress should be removed. It shows from our research that Emirati female are willing to start their business and want to be a successful entrepreneur in the future to overcome the above barriers.

5.3 Conclusion

Among the many firms that started during a recession are LexisNexis, the law media business, during the 1973 oil crisis. FedEx started trading in the same year and went on to become an international delivery company. News broadcaster CNN launched in 1980 at the start of a severe recession that lasted two years. When there is a massive change in the economy there are always opportunities. There will be opportunities everywhere this year. Given that it is probably easier for some unemployed people to start a business than find a new job. There is a increasing number of Emirati female who are getting out the universities and colleges will sure break the barriers with their commitment and high level of motivation and expertise will sure work out a proper strategy in future to become successful entrepreneur in UAE.

The study shows the high level of interest that exists in 1st year business students both in UAE and internationally. Since UAE is considered as a land of opportunities and also female shows very high participation in learning the interest is very high compared to their counterparts internationally. However, as would be expected, there exists a lack of entrepreneurial experience within these students. The study found that those students that had some exposure to entrepreneurial, either personally or through others, displayed a higher interest in undertaking studies in entrepreneurship or starting a new venture. Bridging this gap to give inexperienced students (in an entrepreneurial sense) some experience in entrepreneurship would seem to create a cycle of improved acceptance and willingness to embrace entrepreneurship, because those with higher experience were found to be more interested in studying and pursuing an entrepreneurial career.

Recommendations for further research

The research itself provides excellent basis for further research including:

- Whether the desire to start new ventures increases or decreases from the 1st year of study to the last year of study
- Whether students' entrepreneurial motivations are different across different countries
- Whether students' entrepreneurial motivations are different across different faculties
- Whether the perception of students about new venture creation actually mirrors reality
- Comparison with answers from actual entrepreneurs to identify key factors
- Comparative study of male and female student's desire in starting a new venture.

Limitations

Limitations of the study include the sample size of the UAE portion of the study. Whilst the overall international sample size (510 + 120 from UAE) provides a good basis for analysis, having 117 responses to the survey in UAE limits the analysis of the data in an UAE context. Further limitations to the study include the fact that a convenience sample was used in the selection of the universities chosen to participate in the survey.

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