



Senior Students' Attitudes Towards Entrepreneurship

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Entrepreneurs and SMEs

- **Entrepreneurship and unemployment.**
World Bank estimates:
 - **97% of jobs in China created by SMEs**
 - **87% in Japan**
 - **85% in USA**
- **SMEs and economic growth/prosperity**
 - **Job creation, investment promotion, skill development, innovation stimulation (Huge PE investments in start-ups)**
 - **Conduit of wealth creation**
 - **Catalyst for competition**



Supporting Entrepreneurs and SMEs

- **Business incubators**
- **Innovation centers**
- **Technology transfer offices**
- **Science parks**
- **Academic institutions:**
 - high-quality entrepreneurship education
 - training programs
 - Early incubation of entrepreneurs is necessary for the development of a strong base of high value-added ventures



Kuwait's Support for SMEs

- **Characteristics of Kuwait's economy**
 - **Single commodity economy (Oil production and imports)**
 - **Affluent consumption pattern (conspicuous consumption)**



Motivation of the Study

- **Gov. provides attractive jobs, hence graduates reckon to a gov. post**
- **Gov. expects university education to foster +ve entrepreneurial spirit**
- **good quality curriculum has been developed**
- **Now comes: measuring the attitudes of business and engineering students toward establishing SMEs in university setting (virtual incubator)**



Literature Review

- **Incubation?**
 - **Supportive environment to hatch startups**
 - **Reduces business risk**
 - **Routinely set-up by business schools**
 - **Has offices, accountants, business counselors, marketing efforts, storage spaces, secretarial resources,etc**



Literature Review

- **The lit. assures the importance of having state-of-the-art entrepreneurship curriculum as it leads to**
 - **economic prosperity (Brayat 2000, Gibb (96)**
 - **Promotes +ve spirit (Laukanen 2000, Hill 88, Donkels 91, Interman 92, and Parker (91)**
 - **Johansson (91): entrepreneurship education has five objectives:**
 - **know why (building the required attitudes and motivation for start-ups);**
 - **know how (attaining technical capabilities necessary to create a business);**
 - **know who (promoting vital contacts for developing the business);**
 - **know when (achieving the sharp intuition to act at the correct moment);**
 - **know what (attaining the knowledge base and information for new venture development aspects of entrepreneurial learning)**



Literature Review

- **Shepherd et al (97)**
 - **calls for fostering the art element by virtual incubators**
- **Cox et al (2003)**
 - **carried a clinical study to test two groups and finds the entrepreneurial education leads to higher self-efficacy**



Hypotheses--1

- **Willingness to participate in Entrepreneurial SMEs**
 - **H 1A The majority of students surveyed will show less inclination to work on SME or to become a seller in SMEs**
 - **H1B: Most students will be more interested in becoming buyers from Entrepreneurial SMEs compared to becoming sellers in these SMEs.**



Hypotheses--2

- **Gender and Entrepreneurship**
 - **H2a: More males will be interested in selling their products through small businesses than females.**
 - **Hypothesis 2B: Males and females will show similar tendency toward buying products from small businesses owned by other students.**



Hypotheses--3

- **Major and Entrepreneurial readiness**
 - **H 3: Business students are more likely to be willing to participate in entrepreneurial projects that do their colleagues in the engineering school.**
- **Academic Performance and Entrepreneurial Spirit**
 - **H4: Students with higher GPA are more likely to be involved in selling in entrepreneurial projects than those with low GPA.**



Hypotheses--4

- **Academic Year and Entrepreneurial Spirit**
 - **H 5: Students in early years of study should show less inclination to participate in college entrepreneurial SMEs than later academic years.**



Results:

- **H 1A The majority of students surveyed will show less inclination to work on SME or to become a seller in SMEs**
- **We expected weak willingness among college students to participate in SMEs. The expectation was not supported.**
- **Results have shown that 97.6% of the sample is willing to work on Entrepreneurial SMEs and only 2.4% refused to participate.**
- **When we specifically asked students whether they were willing to work between lecture times, almost 96% indicated that they are willing to participate in working between lecture hours.**



Results: willingness to work on SMEs

	Frequency	Percent	Valid Percent	Cumulative Percent
Willingness to work on SMEs				
Valid YES	478	97.6	97.6	97.6
NO	12	2.4	2.4	100.0
Total	490	100.0	100.0	
Willingness to work between hours on SMEs				
Valid YES	470	95.9	97.9	97.9
NO	10	2.0	2.1	100.0
Total	470	95.9	97.9	97.9



Results

- **H1B: Most students will be more interested in becoming buyers from Entrepreneurial SMEs compared to becoming sellers in these SMEs.**
- **This hypothesis is supported. Students showed greater interest in becoming a sellers with a mean of 6 SME projects.**
- **When asked if they would buy from Entrepreneurial SMEs, students were quite supportive showing that they would buy an average of 12 kinds of products.**



Non-Parametric analysis of becoming a seller and a buyer in entrepreneurial SMEs.

Parameter	AS SELLER Total number of projects	AS BUYER Total number of projects
Valid N	490	490
Mean	5.65	12.25
Median	6.00	12.00
Mode	5	12
Minimum	0	1
Maximum	17	18
Sum	2767	6003
Percentiles		
25	4.00	10.00
50	6.00	12.00
75	7.00	15.00



Gender and degree of readiness to become entrepreneur or to be a buyer from an entrepreneur

	Gender	N	Mean Rank	χ^2	Asymp. Sig.
Becoming an entrepreneur	MALE	167	204.05	15.73	.000
	FEMALE	322	266.24		
	Total	489			
Buying from an entrepreneur	MALE	167	257.88	2.735	.098
	FEMALE	322	238.32		
	Total	489			



Gender and Entrepreneurship:

- **H2a: More males will be interested in selling their products through small businesses than females**
- Hypothesis 2a is not supported. The reverse was true.
- Willingness of females to work on their own small project is greater than males.
- If intentions are to be acted upon, female students are more likely to establish their own small business than males.
- The mean rank for females is greater than males $MRM = 167$ $MRF = 266$, $\chi^2 = 15.725$, $p < .0001$.
- Out of the 167 males, 130 (78%) were either equal or below the median while only 22% were above the median. As for females, 40% were above the median.



Gender and Entrepreneurship:

- **H2b: Males and females will show similar tendency toward buying products from small businesses owned by other students.**
- **Tested whether males and females are willing to work on an entrepreneur project in general and also during classes in the school.**
- **Our analysis of the responses to both offers showed no differences in the responses based on the answers. The significance of the asymptotic 2 sided person chi-square was not significant ($p > .424$) for working on entrepreneur project and ($p > .682$) for working between classes**
- **Hypothesis 2B is supported.**



Gender and Entrepreneurship

- **When students were asked if they would buy from a student owned business, both genders have similar inclinations and no statistical differences were detected.**
- **As shown in table (4), the mean rank for females is almost equal to males $MRM= 258$ $MRF = 238$, $\chi^2=2.7$, $p= .098$. Analysis of the median shows that scores above and below the median for males and females are not much different, confirming that there is more similarity than differences between males and females.**



Major and Entrepreneurial Readiness

- In Hypothesis 3, we predicted that business major students will be more involved in entrepreneurial SMEs than non business students.
- The analysis shows that business students and the engineering students were significantly different in terms of their willingness to become sellers in an entrepreneurial projects (Mean *Eng* = 6.54, Mean *CBA* = 5.07, $F = 36.01$, $p < .0001$), and in terms of being customers to entrepreneurial business (Mean *Eng* = 11.36, Mean *CBA* = 12.83, $F = 23.34$, $p < .0001$).
- Engineering students showed higher tendency to become entrepreneurs and showed less inclinations to buy from entrepreneurs than business students.



ANOVA results on college and degree of readiness to become entrepreneur or to be a buyer from an entrepreneur

Factor	College	N	Mean	Mean Ranks	F	Sig.
Willingness to become a seller	CBA	297	5.07	241.97	36.012	.000
	ENGINEERING	193	6.54	250.92		
	Total	490	5.65	-		
Willingness to become a Buyer	CBA	297	12.83	241.18	23.336	.000
	ENGINEERING	193	11.36	239.41		
	Total	490	12.25	-		



Academic Performance and Entrepreneurial Spirit

- **Our prediction in H4 stated that higher GPA students should be more involved in SME projects than lower GPA students.**
- **Using GPA and Major GPA, results show that those students who rejected working on entrepreneurial SMEs have significantly lower GPA and major GPA (GPA of the students not willing to participate were 0.55 lower in GPA and 0.66 lower in major GPA)**



Results of ANOVA on GPA and to entrepreneur

		N	Mean	Source	df	Mean Square	F	Sig.
GPA	YES	426	2.95	Between Groups	1	2.996	10.76	.001
	NO	10	2.4	Within Groups	434	.278		
	Total	436	2.94	Total	435			
GPA Major	YES	343	2.97	Between Groups	1	3.99	14.52	.000
	NO	9	2.30	Within Groups	350	.275		
	Total	352	2.96	Total	351			



Academic year and SMEs

- **Results lend partial support to the predictions of H5**
- **While the willingness to work on SMEs was the greatest in fourth year, the statistical test didn't achieve the desired significance for overall willingness to work on SMEs ($\chi^2=4.488$, $p=.213$) and willingness to work on SMEs between lectures ($\chi^2=2.506$, $p=.474$).**
- **Willingness to become a seller are the highest in the last two academic years (juniors and seniors, mean rank = 261) compared to first two years (mean rank first year = 181, and mean rank second year = 221, $\chi^2=19.935$, $p<.00001$)**
- **Becoming a buyer was the highest among the first year (mean rank first year = 320) compared to later years $\chi^2=22.997$, $p<.00001$).**



Variable	Academic Year	N	Mean Rank	Chi-Square (df)	Sign f.
Work on SMEs?	1	62	239.50	4.488 (3)	0.213
	2	75	246.03		
	3	190	243.37		
	4	163	250.02		
	Total	490			
Work between lectures on SMEs	1	62	243.24	2.506 (3)	0.474
	2	74	238.74		
	3	188	238.05		
	4	156	243.19		
	Total	480			
Selling in SMEs	1	62	181.21	19.935 (3)	0.0001
	2	75	221.77		
	3	190	261.87		
	4	163	261.79		
	Total	490			
Buying from SMEs	1	62	320.30	22.997 (3)	.00001
	2	75	233.40		
	3	190	246.99		
	4	163	220.88		
	Total	490			



Discussions and limitations

- **As we derive from the theory of planned action, behavior is determined by two components: intention and attitude. In order to foster a successful entrepreneurship program, intentions and attitudes are measured directly in this research and results show that, unlike our expectations and to our surprise, willingness to participate in entrepreneurial SMEs is quite high among KU students. While these results are encouraging, its not enough by themselves to assume participation in such projects will be high, but shows a positive outlook.**
- **Another counterintuitive results found in this research is the increased willingness among females to participate in SMEs than males despite the preconceived notion that Kuwait is male-dominant society and that males are more eager to be business owners than females. The finding that engineering students were more motivated to work on entrepreneurial SMEs than business students traces back to the product inception itself.**
- **Our investigation with engineering professors leads us to believe that exciting projects are made in engineering classes yet they lack the business tools to commercialize it whereas business students may be more effective in commercialization but not in creating the impetus of entrepreneurial projects. Statistics from MBA enrollment testify to this effect where the majority of MBA enrollments are non-business majors especially from engineering.**
- **There seems to be a relationship between academic performance and willingness to participate in entrepreneurial SMEs. Highly performing students academically are more eager to work on SMEs. The overall drive for success among students is related to such motivation. In addition, students approaching graduation are more eager to participate in entrepreneurial SMEs which sends strong signal to those in charge of promoting SMEs to target this group.**