



كلية الدراسات المصرفية والمالية
College of Banking and Financial Studies

**Graduates Attitude Towards Entrepreneurship in Oman:
An Empirical Study**

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كلية الدراسات المصرفية والمالية College of Banking and Financial Studies

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Table of Contents

Abstract		
1	INTRODUCTION	
2	LITURATURE REIIEW	
3	METHODOLOGY	
4	EMPIRICAL FINDINGS	
5	CONCLUSIONS	ERROR! BOOKMARK NOT DEFINED.
	REFERENCES	ERROR!
	BOOKMARK NOT DEFINED.	

GRADUATES ATTITUDE TOWARDS ENTREPRENEURSHIP IN OMAN: AN EMPIRICAL STUDY

Omer Ali Ibrahim^{}, Sonal Devesh and Vaheed Z. Ubaidullah*

Abstract

This paper assesses the attitude of graduate students in Oman towards entrepreneurship. Data was collected through a structured questionnaire with a sample of 165 students, selected from four colleges in Muscat. Exploratory factor analysis, and multivariate regression model were used to identify the main factors influencing students' attitude towards entrepreneurship. Results show that the level of the knowledge about enterprises, the level of understanding business risk, and the entrepreneurship education attended, have significant influence on graduate students attitude towards entrepreneurship. The paper recommends strengthening entrepreneurship education and promoting the role of the government and business incubators to support the graduates with the required entrepreneurship knowledge and skills, to mitigate the problem of graduates' unemployment and contribute to the country's growth and competitiveness.

Keywords: Entrepreneurship, attitude towards entrepreneurship, exploratory factor analysis, Oman

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GRADUATES ATTITUDE TOWARDS ENTREPRENEURSHIP IN OMAN: AN EMPIRICAL STUDY

1. INTRODUCTION

With the increasing pace of globalization, promoting entrepreneurship has become one of the policy options for nations to sustain growth and competitiveness. Fostering entrepreneurial potentials of the younger generations, particularly the graduates, by nurturing and understanding their talents, and promoting entrepreneurial culture among them, will stimulate economic growth and development (Schaper & Volery 2004; Venkatachalam & Waqif 2005).

Graduates unemployment has become a major concern among policy makers in Oman in the last few years. The number of job seekers has been in a continuous increase, reaching 146,385 in 2015, forming 11.7 percent of the nation's workforce (Muscat daily, 2015). Official statistics have also shown that the number of graduates in the country had increased from 12,518 in 2011 to 16,343 in 2015, with a compound annual growth rate of 14.3 percent (NCSI, 2015). The dynamics of unemployment in Oman may be attributed to a number of reasons, among which are the slow growth of the economy, and the attitude of the graduates towards workplace. The growth domestic product (GDP) of Oman has been growing at a rate of 4.5 percent in 2015 (NCSI, 2015), which is far below the growth rate of the labour force of 13.4 percent (World Bank, 2015). Another dimension to the problem is that Omani graduates have a negative attitude to work in the private sector, and always prefer to work in the government sector, as they feel there is more job security in the latter (Najat et al., 2015; NCSI, 2015).

The government has responded to the graduates unemployment since the start of the Arab spring in 2011, by creating many job opportunities in the government sector, specifying a minimum Omanization rate of 34 percent for the private sector, and supporting small and medium enterprises (SMEs) initiatives. However, with the decline of oil prices, the main government source of income, and the saturation of the government sector, these efforts may not be sustainable to tackle the problem. Many analyst believe that changing the attitude of graduate students in Oman towards self-employment and building entrepreneurship bases is required. Research in that area is currently lacking in Oman. The few studies that addressed entrepreneurship in the framework of SMEs had concentrated on the challenges facing the entrepreneurs (Blossom Christina et al., 2014; Khalfan et al., 2014; Najat et al., 2015). The other studies that attempted to identify the main factors influencing students attitude and intension towards entrepreneurship, have used qualitative approaches and sampling methodologies, the results of which cannot be generalized to reflect the attitude of the whole population of students in Oman (Ammani Ammal & K.Malar Mathi, 2014, Abir and Zahran 2014, and Rakesh et al, 2015). There is a need for nationally representative studies based on quantitative approach to explain the key determinants of the attitude of the students towards entrepreneurship in Oman. That will help decision makers to draw effective policies.

The aim of this paper is to explain the factors influencing the attitudes of the graduate students in Oman towards entrepreneurship, using quantitative approach. Understanding this attitude is now even more important to Oman given the global economic instability and the decline in oil prices that have made entrepreneurship as the only viable option for the country sustainability. Hence,

the paper will contribute to the ongoing debate on graduates' unemployment in the country, using relatively larger sample size of graduates, covering four colleges, private and public, and employing advanced multivariate analysis.

The remaining of the paper is structured as follows: Section 2 reviews the literature on entrepreneurship, section 3 presents the methodology with a focus on exploratory factor analysis and multivariate regression model. Section 4 provides empirical findings and discussion, and section 5 concludes.

2. LITERATURE REVIEW

There is an abundant literature relating to the importance of entrepreneurship and its determining factors. Entrepreneurship has been recognized as a key vehicle by which a country's competitiveness can be stimulated (Kitson et al., 2004; European Commission, 2009). The benefits of entrepreneurial activity in terms of job creation or economic growth have been well addressed by Van Praag & Versloot (2007). The SMEs have contributed significantly to the socio-economic and political environment of most of the developed and developing nations in the last decade (Matlay, H. & Westhead, P., 2005). Also, as per OECD Policy Brief (2000) the SMEs have been very influential in the economic growth of many countries, and the government policies could be instrumental in promoting entrepreneurship, facilitating start-up and expansion, improving access to venture capital and other types of financing. In Oman, according to Blossom Christina et al (2014), about 60 percent of the SMEs are source of employment to the Nationals.

Identifying the factors influencing entrepreneurship is a key issue for policy makers to design effective self-employment policies and entrepreneurship initiatives. Many studies have used Robinson et al (1991) model of entrepreneurs attitude orientation scale to investigate the factors influencing the attitude towards entrepreneurship (Ammani Ammal & K.Malar Mathi, 2014; Koh, 1995; Tan,Long & Robinson, 1996; Tkachev & Kolvereid, 1999; Paramond, 2004). These studies showed that the attitude towards entrepreneurship is influenced by family, business background, innovativeness, self-efficacy, risk-taking and independence, which in turn affect student career choice as an entrepreneur. Students with family and personal experience in entrepreneurship have more positive attitude towards an entrepreneurial career (Hatala, 2005). Risk taking has been shown to have a strong relationship with success of entrepreneurs in establishing new ventures (Antonites & Wordsworth, 2009).

Ahmed Imran Hunjra et al. , (2011) and Ishfaq Ahmed et al., (2010) indicated that innovativeness and independence of students will impact their attitudes towards entrepreneurship. Students who are more confident and independent in their ability based on practical experience, will have a positive attitude toward entrepreneurship as a career choice.

Joint decision making is very important when it comes to business and reducing risk. An entrepreneur's decision to startup a new business venture is not considered by his ability instead it is influenced by his family or peers and their entrepreneurial experiences (Veesam , 2015). Also, Francisco José da Costa et al (2009) highlighted that interest in creating new business among a group of information technology students in Brazil is influenced by the perceived vocation of the entrepreneurship course, by the perception of social support in decision from friends and family, by the ownership of a business, and the perception of entrepreneurial skills mastery.

Furthermore, many empirical studies have showed that entrepreneurship education and training influence individuals' intentions to start a business, and called for integrating entrepreneurship programs internship within the education curricula (Lanero et al., 2011). McMullan & Gillin (1998) ascertain that 87 percent of students of graduate degree program in entrepreneurship at the Australian University actually started a venture within two years after graduation. It is also understood that individuals' perceptions of start-up barriers can indeed be modified through self-employment trainings (Hatala, 2005). Lee et al (2005) and Kolvereid & Moen (1997) found that students who took an entrepreneurship course have higher start-up intentions and possess more knowledge about new venture creation than students who did not pursue entrepreneurship course. An evidence of a direct relationship between entrepreneurial learning and being self-employed has been indicated by Peter van der et al (2013). Self-employment decisions can be affected by fostering entrepreneurial interest and skills through education. Hence, entrepreneurial programs need to be integrated with the college curriculum.

Role of training is also important for impacting attitude towards entrepreneurship. According to Matlay (2005), conducting follow up events and encouraging participation in local and international SMEs conferences, workshops and seminars on a periodical basis will create interest among the students to venture into entrepreneurship. Khalfan et al (2014) showed that most SME owners in Oman had prior work experience of at least one year, while over 80 percent never received a formal training related to SMEs. Among the challenges faced by many SMEs in Oman is the lack of required knowledge of business, lack of modern managerial and administrative skills, limited knowledge to deal with officials, regulations and required bureaucracy. The role of the government is very important in initiating strategic planning measures to raise the awareness of SMEs owners to deal with these challenges. Evidence has also shown that business incubation achieved promising results in many countries in the world in creation and growth of entrepreneurship (InfoDev, 2007). Business incubators usually provide many services such as shared infrastructure (i.e. office space, meeting rooms etc.), business advisory services, financial services, and people connectivity with experienced business professionals. Government support and private sector partnership with business incubation is critical for any entrepreneurship initiative to perform effectively.

In Oman, that studies that are related to attitude of students towards entrepreneurship are very limited. In study of Students' perception of entrepreneurship and enterprise education in Oman, Rakesh Belwal , Hanan Al Balushi , Shweta Belwal , (2015) revealed that the majority of the university students were optimistic and interested in starting their own business, but at the same time lacked knowledge about how to start a business. Factors such as confidence, and effective connections with established entrepreneurs were observed as enablers for starting a business. Fear of failure and unwillingness to take risks were seen as the major obstacles facing university students in taking up an entrepreneurial path. The main shortcoming of this study, it used a non-probability sampling i.e convenient sampling, where generalization of results cannot be maintained.

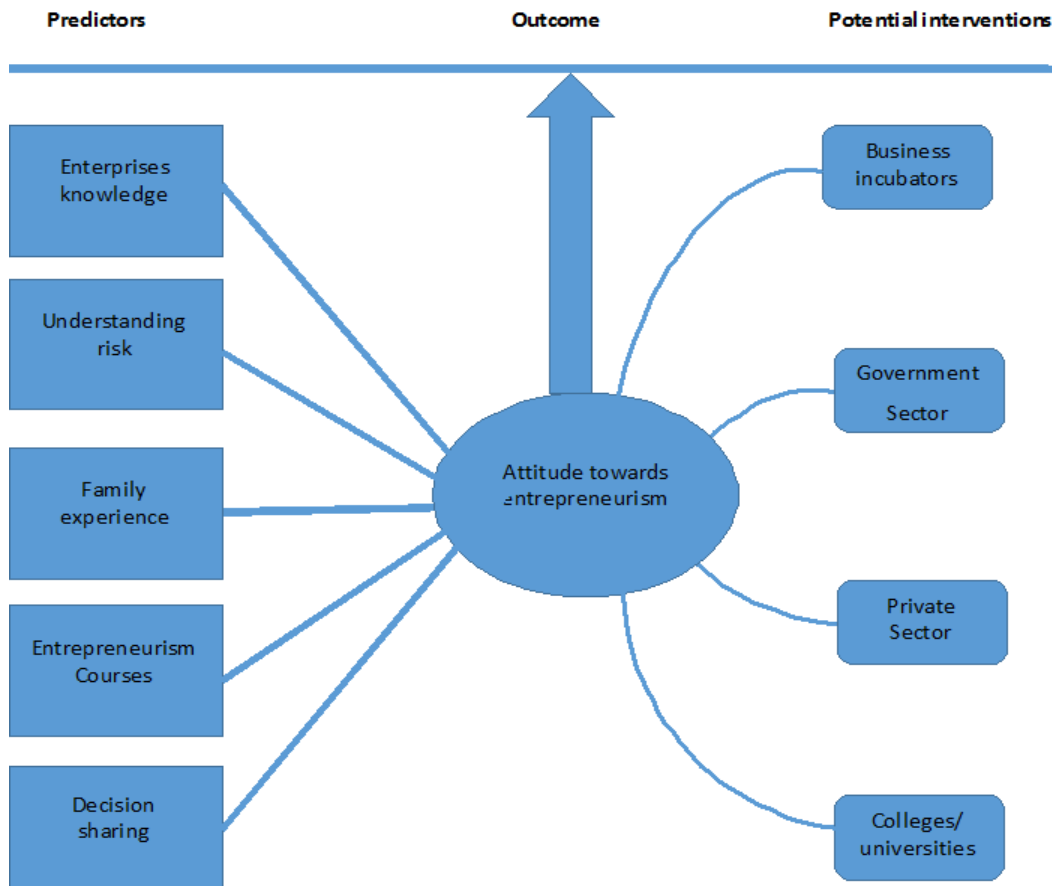
Abir S. Al-Harrasi & Zahran S. Al-Salti (2014) investigated the entrepreneurial intention among Information Systems students at Sultan Qaboos University, using qualitative approach of focus group discussion of 7 respondents. The study revealed that the majority of the students have low

entrepreneurial intention. According to the study, the factors that have positive influence on students' entrepreneurial intention are money, independence, and work flexibility, while the lack of entrepreneurship courses in the department have a negative impact on students' entrepreneurial intention. Further the study identified that Omani students are not well educated about the supportive programs provided by the government and private sector for entrepreneurs.

Study of Ammani Ammal & K.Malar Mathi (2014) assessed the attitude of undergraduate students in Ibrhi College towards taking entrepreneurship as a career choice, The study included 60 students, and used descriptive approach. The study found that family business background, innovativeness, students confidence and independence impact students attitude towards taking entrepreneurship as a career choice. The limitation of the studies lies in the fact that the its conclusion cannot be generalized to the students population in Oman as included only one college and the sample size might be representative.

Based on the above discussion, the paper developed a framework for discussing the factors influencing attitude towards entrepreneurship in Oman. The framework in Figure 1 highlights the predictors affecting attitude towards entrepreneurship, the outcome represented in the attitude, and the potential interventions to affect that attitude.

Figure 1: Framework for discussing Attitude of graduates toward entrepreneurship



3. METHODOLOGY

The study adopted a quantitative design to assess the attitude of graduate students in Oman towards entrepreneurship. A stratified random sampling scheme was used with a sample of 165 students, surveyed in four colleges in Muscat: two were government colleges with a share of 65 percent and the others are private with a share of 35 percent. Data was collected through a structured questionnaire. The reliability of the survey instrument was high with Cronbach's Alpha amounting to 0.89 for attitudes variables. Five-point Likert scale was used to measure the attitude towards entrepreneurship, and understanding risk variables : 5 was "strongly agree", 4 was "agree", 3 was "Neutral", 2 was "disagree" and 1 was "Strongly disagree". For the other variables in the questionnaire, such as decision sharing, and knowledge in areas of enterprises, a three-point Likert scale was used where 3 was "great", 2 was "limited", 1 was "none" A higher mean score on a variable indicates greater knowledge or a positive attitude.

Exploratory factor analysis (EFA) was used to determine whether attitude variables group together on significant factors. Keiser Meyer-Olkin measure of sampling adequacy (Kaiser, 1974) and Bartlett's test of Sphericity (Bartlett, 1954) were used to test the justification of factor analysis implementation. Principal component analysis, extraction method with a Varimax with Kaiser Normalization rotation were used to determine the factor loading and communalities. From the results of the EFA, multivariate regression model was developed to identify the key factors influencing graduate students attitude in Oman towards entrepreneurship.

4. EMPIRICAL FINDINGS

Oman scenario

Oman is a high-income economy that is heavily dependent on oil resources. Oil contributes with more than 77% of the government revenues, 62.5% of the exports and 51.6% of the Gross Domestic Product (NCSI, 2015).

The current episode of oil price decline has affected the Omani economy severely. The GDP growth has declined from an average of 5.7 percent during the period 2010- 2014 to 3.8 percent in 2015, and the government budget showed a deficit of RO 2.68 billion in the first eight months of year 2015 (CBO, 2016). To cope with this crisis the government introduced many measures, including cutting public spending by 11 percent year-on-year, as well as slashing subsidies by 62 percent, deregulating fuel prices, raising corporate tax and increasing fees on government services. With these developments the government ability to generate more employment to meet the rising numbers of Omanis will be challenging. Hence, promoting entrepreneurship and self-employment is one of the policy options to address the problem of graduate unemployment.

Sample characteristics

Results of the survey showed that the majority of the participants were females (72 percent) compared to 28 percent male. This in fact reflects the gender distribution in the higher education institutions in Oman. The participants were selected from the final year in business-related specializations only. About 62.4 percent of students reported to have family experience in business, and 52.4 percent have participated in entrepreneurship education.

Exploratory Factor Analysis

Keiser-Meyer-Olkin measure of sampling adequacy was 0.756 and Bartlett's test of Sphericity was significant at 0.000, indicating a high sampling adequacy and a justification for proceeding with factor analysis as shown in Table 1.

Table 1: Factor analysis for components of entrepreneurship

Comp onent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Communal ities
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulati ve %	
1	5.43	19.39	19.39	5.43	19.39	19.39	.716
2	3.37	12.03	31.42	3.37	12.03	31.42	.549
3	1.91	6.82	38.24	1.91	6.82	38.24	.526
4	1.45	5.18	43.42	1.45	5.18	43.42	.333
5	1.29	4.59	48.01	1.29	4.59	48.01	.324
6	1.22	4.35	52.36	1.22	4.35	52.36	.461
7	1.13	4.03	56.39				.493
8	1.02	3.65	60.04				.423
9	0.98	3.50	63.54				.515
10	0.96	3.44	66.98				.688
11	0.90	3.22	70.20				.468
12	0.87	3.10	73.30				.621
13	0.81	2.89	76.19				.547
14	0.76	2.73	78.92				.591
15	0.65	2.32	81.24				.467
16	0.59	2.12	83.36				.545
17	0.58	2.08	85.45				.516
18	0.56	2.00	87.45				.475
19	0.49	1.73	89.18				.595
20	0.47	1.69	90.87				.624
21	0.45	1.62	92.49				.615
22	0.39	1.41	93.90				.586
23	0.36	1.28	95.18				.536
24	0.34	1.23	96.40				.435
25	0.29	1.04	97.45				.522
26	0.28	0.99	98.43				.454
27	0.24	0.86	99.30				.419
28	0.20	0.70	100.00				.619

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy = 0.751
 Bartlett's Test of Sphericity Approximately Chi-Square = 1385.9
 df = 378 Sig = 0.000

Extraction Method: Principal Component Analysis.

Factor analysis led to six factors, which accounts for 52.2 percent of the cumulative variance. These factors are shown in table 2 and interpreted as following: the first factor, referred to as “knowledge of business risk”, consisting of items 4,5,9,11,12,14,15,19,21,22,25, and 28. This factor explains 19.3 percent of the total variance. Students appear to believe that understanding risk is very important as a motivating factor for starting a firm. The second factor, referred to as “knowledge of an enterprise”, containing items: 1, 2, 6,8,10,13,16,20, and 27, and accounting for 12.0 percent of total variance.

Table 2: Rotated components of entrepreneurship Matrix

Items	Components					
	1	2	3	4	5	6
1. I know the basics of starting up an enterprise		0.35	0.20	0.71	0.16	-
2. I know business planning of an enterprise	0.20	0.46		0.48	0.14	0.21
3. My family has a business experience				0.62	0.14	
4. I have a satisfactory level of problem solving skills	0.75			-		0.15
5. I have satisfactory level of leadership & communication skills	0.72			0.21		0.16
6. I have fair knowledge of enterprise finance		0.64		0.21		-
7. Close friends approve my decision of starting a firm	-		0.70	0.16	-	0.25
8. I know business models of an enterprise		0.53			0.14	0.15
9. I know the necessary practical details to start a firm	0.43	0.51	-		0.14	-
10. I know insurance & tax laws of an enterprise		0.42			-	0.37
11. I can control the process of setting a new firm	0.67				0.26	0.13
12. Starting a firm and keep it working is easy for me	0.35		-			0.65
13. I know about enterprise development ideas		0.52	0.24	0.23		0.29
14. I am prepared to start a viable firm	0.49			0.15	0.44	0.11
15. I have satisfactory level of recognition to be an entrepreneur	0.75				-	0.14
16. I know problem recognition & solution of enterprises		0.58	0.11	0.23	-	0.17
17. I pursue public education					0.77	
18. Close family approves my decision of starting a firm			0.79	0.11		-
19. I have satisfactory level of development of new products and services to be an entrepreneur	0.68	0.16			-	-
20. I have knowledge of writing a business plan		0.53				0.47

21. I have satisfactory level of networking and making professional contacts to be an entrepreneur	0.59	0.18		-	0.19	0.15	
22. I have satisfactory level of implementing ideas	0.70						0.14
23. I share a decision of starting a firm with close relatives			0.61			0.15	- 0.27
24. I have taken entrepreneurship subjects at college		0.28			0.39	-	- 0.22
25. I have high probability of success to start a firm	0.66			-	0.11		- 0.13
26. Close colleagues approve my decision of starting a firm		0.22	0.59	-	0.23	-	0.27 0.14
27. I know the responsibilities of entrepreneurs		0.68	0.11			-	0.10
28. I have satisfactory level of creative ideas skills	0.75			-	0.10	0.15	0.12
Extraction Method: Principal Component Analysis. Rotation : Varimax with Kaiser Normalization.							

The third factor, which is named “decision sharing”, consisting of items: 7, 18, 23 and 26, and accounting for 6.82%. The fourth factor, which is named “family business experience”, consisting of item 3, and accounting for 5.18 percent of total variance. The fifth factor, referred to as “type of college”, consisting of items 17, and accounting for 4.59 percent of total variance. The sixth factor, referred to as “entrepreneurship education” consisting of item 24, and accounting for 4.35 of total variance.

Model for entrepreneurship

Based on the framework in figure 1 and the exploratory factor analysis, the following multivariate regression model was used to identify the factors influencing the attitude of graduate students in Oman towards entrepreneurship.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 \quad \text{with the restrictions}$$

$$\beta_1 > 0 ; \beta_2 > 0 ; \beta_3 > 0 ; \beta_4 > 0 ; \beta_5 > 0 ; \beta_6 > 0$$

Where

Y = Attitude towards entrepreneurship

X₁ = Level of knowledge in the area of enterprises

X₂ = Understanding business risk

X₃ = Family history with entrepreneurship

X₄ = Joining entrepreneurship courses

X₅ = Level of decision sharing

X₆ = Type of education (private/public)

Table (3) : Results of the coefficients of the Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	T	P-value	Conclusion
	B	Std. Error	Beta			
(Constant)	11.75	1.670	-	7.041	.000	Reject (P-value < 0.05)
Enterprises knowledge (x1)	0.109	0.055	0.143	1.999	.047	Reject (P-value < 0.05)
Risk understanding (x2)	0.165	0.023	0.479	7.134	.000	Reject (P-value < 0.05)
Family experience (x3)	-0.059	0.338	-0.012	-.175	.861	Accept (P-value > 0.05)
Entrepreneurship courses (x4)	0.784	0.347	0.161	2.261	.025	Reject (P-value < 0.05)
Decision sharing (x5)	-0.114	0.083	-0.091	-1.368	.173	Accept (P-value > 0.05)
Type of education (x6)	-0.248	0.338	-0.050	-.734	.464	Accept (P-value > 0.05)
R-Squared = 0.345						
F= 16.44		P- value = 0.000				

Results of the model in table (3) show the following:

- The level of knowledge in areas of enterprises indicated a significant positive impact on attitude toward entrepreneurship, with P-value $0.047 < 0.05$. This means that, the higher the level of knowledge in areas of enterprises, the positive is the attitudes toward entrepreneurship
- The level of understanding the risk taking ability has also showed a positive impact on attitude, with P-value $0.000 < 0.05$, indicating the that the higher the knowledge about risk, the greater the attitudes toward entrepreneurship.
- The experience of graduate family or closer relatives with business has no significant impact on the attitude of graduates towards entrepreneurship, with P-value of $0.861 > 0.05$.
- Attending entrepreneurship course was found to have a positive influence on the attitude toward entrepreneurship, with P-value $0.025 < 0.05$.
- Decision sharing with family, close friends, or colleagues has no influence on graduates attitude toward entrepreneurship, with the P-value of $0.173 > 0.05$.
- The type of college whether private or public has no impact on students' attitude towards entrepreneurship, with the P-value $0.464 > 0.05$.
- The five factors included in the above model are explaining 34.5 percent of the variations in attitude toward entrepreneurship. This is a reasonable explanatory power.
- The F-value of the model of 16.44, and the P-value of 0.000 show that the model as a whole is significant and can be used to explain the attitude toward entrepreneurship in Oman.

Attitude towards entrepreneurship

Table 4 shows the level of attitude towards entrepreneurship among students of higher education institutes in Oman.

Table (4): Level of attitudes of graduates towards entrepreneurship

Attitude items	Level of attitude (%)					Mean	Result
	SD	D	N	A	SA		
1. If I have the opportunity and the resources, I would like to start a business	0	1.2	7.3	37.8	53.7	4.44	Very high
2. Among various options, I would rather be an entrepreneur	1.8	2.4	14	37.8	43.9	4.20	Very high
3. Being an entrepreneur would entail great satisfaction	0	3	15.9	45.7	35.4	4.12	Very high
4. Being an entrepreneur implies more advantages than disadvantages	0	4.9	20.1	47.6	27.4	3.98	High
5. A career as an entrepreneur is attractive	0	3	23.2	53	20.7	3.91	High
Overall all	0.4	2.9	16.1	44.4	36.2	4.13	Very high

SD= Strongly disagree, D = Disagree, N=neutral, A= Agree ; SA= Strongly agree

Sources: Field survey (2016)

Table (4) shows that there is positive attitude towards entrepreneurship among graduates of higher education institutes in Oman. The overall average score of attitude was amounting to **4.13** points. The participants showed a positive attitude with a per cent of at least 73 percent for all the items comprising the attitude towards entrepreneurship.

Enterprises knowledge

Knowledge in the areas of enterprises is very important for any individual to start a business. This includes knowledge of starting up, planning, finance, management, and the laws and regulations governing the process of starting a business.

Table (5): Level of knowledge in areas of enterprise

Areas of knowledge	Level of knowledge (%)			Mean	Result
	None	Some	Great		
1. Enterprise development ideas	19.5	57.3	23.2	2.04	Some
2. Basics of starting up an enterprise	11.6	76.2	12.2	2.01	Some
3. Problem recognition & solution of enterprises	20.1	62.2	17.7	1.98	Some
4. Business planning of an enterprise	18.3	68.3	13.4	1.95	Some
5. Responsibilities of entrepreneurs	25.2	55.2	19.6	1.94	Some
6. Business model of an enterprise	28	59.8	12.2	1.84	Some

7. Enterprise financing	30.5	60.4	9.1	1.79	Some
8. Conducing feasibility studies	42.1	48.2	9.8	1.68	Some
9. Insurance and tax laws of an enterprise	42.9	47.2	9.8	1.67	Some
Over all	26.5	59.4	14.1	1.88	Some

Sources: Field survey (2016)

Table 5 indicates that the level of knowledge of graduates in higher education institutions in Oman is some how high, amounting to 1.88 as an overall. The minimum level of knowledge were expressed in the areas of conducing feasibility studies, insurance and tax laws of enterprises and enterprise finance. These are the weak areas where graduates knowledge need to be strengthened and promoted.

Decision sharing

Creating a firm requires consultation of many close parties, including family members, relatives, friends, colleagues in the college/university.

Table (6): Level of decision sharing to start a business

People involved in the decision sharing to start a business	Level of decision sharing (%)			Mean	Result
	No impact	Limited	Great		
1. Close family approves the decision to start a business	18.3	35.4	46.3	2.28	Limited
2. Close relatives approve the decision	19.5	53.7	26.8	2.07	Limited
3. Close friends approve the decision	24.4	48.2	27.4	2.03	Limited
4. Close colleagues at college/university approve the decision	39	48.2	12.8	1.74	Limited
Over all	25.3	46.3	28.4	2.03	Limited

Sources: Field survey (2016)

We note from table 6, the level of decision sharing of the graduates with close family, or close relatives, or close friends or colleagues at colleges are limited. The highest impact comes from close family(2.28) followed by close relatives(2.07).The role of close family is relatively higher than the role of other people in graduates decision when creating a firm which is supported by many studies.

Risk knowledge and assessment

Risk knowledge and assessment is very vital in the process of starting any business. Table (7) provides the levels of understanding of students of business risk.

Table (7): Level of understanding business Risk

Areas of business risk	Level of understanding risk (%)					Mean	Results
	SD	D	N	A	SA		
1. I have satisfactory level of implementing ideas	0	5.5	24.4	45.7	24.4	3.89	High
2. I have satisfactory levels of creative ideas and skills to be an entrepreneur	0	9.1	22	46.3	22.6	3.82	High
3. I can anticipate the probability of success for the business	1.8	6.1	26.2	45.1	20.7	3.77	High
4. I have satisfactory levels of leadership and communication skills	0.6	7.3	26.2	45.7	20.1	3.77	Moderate
5. I have satisfactory levels of developing new products and services	0.6	6.7	32.9	40.9	18.9	3.71	Moderate
6. I have satisfactory levels of recognition as an entrepreneur	2.4	7.9	31.1	35.4	23.2	3.69	High
7. I can easily control the process of creating new firm	1.2	6.7	30.5	45.7	15.9	3.68	Moderate
8. I have satisfactory level of problem solving	1.2	8.5	26.2	49.4	14.6	3.68	Moderate
9. I have satisfactory level of networking and making professional contacts	2.4	12.2	24.4	40.2	20.7	3.65	Moderate
10. I know the necessary practical details to start a firm	0.6	11	28.2	46	14.1	3.62	Moderate
11. I can start a viable firm	0.6	12.9	30.1	41.1	15.3	3.58	Moderate
12. I know the basics of starting a firm and keep it working easily	4.9	24.4	36.6	22	12.2	3.12	Moderate
Over all	1.4	9.9	28.2	42	18.6	3.66	Moderate

SD= Strongly disagree, D = Disagree, N=neutral, A= Agree ; SA= Strongly agree

Sources: Field survey (2016)

Table 7 shows that the overall knowledge of the graduates is moderate. The average level of understanding the business risk ranges from minimum of 3.12 for the case of starting a firm and keeping it working, to the highest of 3.89 in the area of implementing ideas.

Discussion

- The level of knowledge in areas of enterprises has been found to have influence on attitude toward entrepreneurship. This is consistent with the most of the studies that addressed personal experience (Koh,1995; Paramond, 2004; Tan, Long & Robinson, 1996; Tkachev & Kolvereid, 1999; Ammani Ammal & K.Malar Mathi, 2014). In Oman, students lack the

knowledge about how to start a business, and occupied with fear of failure as revealed by Rakesh Belwal , Hanan Al Balushi , Shweta Belwal (2015). Promoting knowledge in the areas of enterprise could be achieved through strengthening internship program. A collaborative effort should be generated between Colleges and industry. Internship program will expose graduates to the real enterprise environment and increase students confidence in taking risk.

- The study found that understanding risk has a positive role in undertaking self-employment, This result is consistent with that of Antonites & Wordsworth (2009) who found that there is strong correlation between risk tolerance and the success of entrepreneurs in establishing new venture. Risk-taking is one of the important factors of entrepreneurship. Kor et al (2007) indicated that the entrepreneurship is not only about willingness to take risks, but also about intelligently searching for new ways of cushioning against risks, while gaining substantial growth rate in the business, as tolerance for risk significantly predicted self-employment goals. To enhance understanding risk, concepts such as business incubators should be strengthened. Business incubators could provide support to graduates in the form of start-up funding, location, networking opportunity, training and many other useful service offering (Kotler, 2008). Oman has recently started setting up Business incubators represented in the Knowledge Oasis Muscat (KOM), a joint venture with United Kingdom' Technology Park Programs. The KOM provides a number of facilities including business and finance information, network building and technology transfer. The organization has also created the Knowledge Mine (TKM) Programme to support the start-up companies with total support package. (Al Mubarak, 2008).
- Family or relatives experience with business has no influence on attitude towards entrepreneurship. This is inconsistent with the findings of (Koh, 1995; Paramond, 2004; Tan,Long & Robinson, 1996; Tkachev & Kolvereid, 1999; Ammani Ammal & K.Malar Mathi, 2014). These studies show that students who had family and personal experience in entrepreneurship have more positive attitude towards an entrepreneurial career and moreover confident in their own ability to repeat that behavior to prosper in entrepreneurship.
- Entrepreneurship courses have been found in the study to have a positive impact on attitude towards entrepreneurship. This result has been confirmed by almost all of the literature in that respect: Lee et.al. (2005) found that those who had a course in entrepreneurship will have higher start-up intentions and have more knowledge about new venture creation than students who had otherwise. In a related study, Kolvereid & Moen (1997) revealed that entrepreneurial intentions among students with an entrepreneurship major are higher than graduates who completed another major at a Norwegian business school. McMullan & Gillin (1998) conveyed that graduate degree program in entrepreneurship at an Australian university found that 87percent of the surveyed graduates actually started a venture up to two years after graduation. Abir S. Al-Harrasi & Zahran S. Al-Salti (2014) showed that lack of entrepreneurship courses in the department of Information Systems at Sultan Qaboos University have a negative impact on students' entrepreneurial intention. Also, according to Matlay, H, & Westhead, P, (2005), and Khalfan et al (2014) challenges of SME can be overcome by more training and promoting entrepreneurship education in higher education institutes. From the survey, it is revealed that entrepreneurship programs in Oman are well perceived by the students, and the number of students registering in these programs are on a continuous increase, particularly the females who are showing a keen

interest to open up new enterprises on various fields. It is suggested that alumni activities should be integrated in entrepreneurship education, which could act as a platform for sharing the journey towards becoming an entrepreneur.

- For the level of decision sharing, the study found that seeking advice from family, friends, and colleagues to start a business has no influence in graduates' attitude toward entrepreneurship in Oman. This result is not in consistent with many studies (Francisco José da Costa et al. 2009, Veeramani, 2015) .

5. CONCLUSION

Self-employment and entrepreneurship initiatives are very important to maintain economic growth and sustain human development through the creation of appropriate job opportunities, and the government support is very vital particularly with regard to strengthening business incubators concepts. Business incubators could provide support to graduates in the form of start-up funding, location, networking opportunity, training and many other useful service offering. There is also a need for institutes of higher education in Oman to strengthen their entrepreneurial educational programs with creativity and innovation to meet the increasing demand of the labour market. This includes increasing knowledge of graduates in areas of setting an enterprise, understanding and evaluation business risk, and developing marketing strategies. Entrepreneurial education should highlight on perceived feasibility in order to create interest in becoming entrepreneur. Policy makers should develop youth enterprise program as part of entrepreneurship education intervention program. Training should be given to entrepreneurship teachers to improve their teaching approaches. Specific intervention program need to be done to improve entrepreneurial self-efficacy and entrepreneurial interest. Entrepreneurship educators and government should team up in promoting and producing a good image of entrepreneurship as a career for the graduates.

References

- Abir S. Al-Harrasi & Zahran S. Al-Salti (2014). Entrepreneurial Intention among Information Systems (IS) Students at Sultan Qaboos University: An Exploratory Study. *Global Journal of Management and Business Research: A Administration and Management*. 14(9) Version 1.0
- Ahmed Imran Hunjra, Hafiz Mushtaq Ahmad, Kashif Ur Rehman, Nadeem Safwan (2011). Factors influencing intention to create new venture among young graduates. *Africa Journal of Business Management*, 5(1), 121-127
- Al-Mubarak, H. (2008). State Investment in Business Incubators. *Public Administration Quarterly*, 12(2), 196-215.
- Ammani Ammal, K. Malar Mathi (2014). Attitudes of Undergraduate Students towards Entrepreneurship as a career choice in Oman. *Journal of international academic research for multidisciplinary*, 2(6), 651-661.
- Antonites, A. J., Wordsworth, R. (2009). Risk tolerance: a perspective on Entrepreneurship education. *Southern African Business Review*, 13(3), 70-74.

- Attewell, P. (1992). Technology diffusion and organization learning: the case of business computing. *Organization Science*, 3(1), 1–19.
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximation. *Journal of Royal Statistical Society*, 16(Series B), 296-298.
- Blossom Christina, Aslam Neelufer, Said Al Amri (2014). Challenges and barriers encountered by the SMES owners in Muscat. *International Journal of Small Business and Entrepreneurship Research*, 2(3), 1-13.
- Brush, G., Duhaime, I. M., Gartner, W. B., Stewart, A., Katz, J.A., Hitt, M.A., et al. (2003). Doctoral Education in the Field of Entrepreneurship. *Journal of Management*, 29(3), 309–331.
- European Commission (2009, April 28). European Competitiveness Report 2009, Brussels: DG Enterprise and Industry, Retrieved from http://www.NBAK09001ENC_002.pdf, ISBN 978-92-79-12982-7 doi: 10.2769/21563
- Francisco José da Costa, Alexandre Araujo Cavalcante Soares, Diego Guilherme Bonfim (2009). Factors of influence on the entrepreneurial interest: An Analysis with students of information technology related courses. *Journal of Information Systems and Technology Management* 6(2), 227-246, doi.org/10.4301/S1807-17752009000200005
- Gartner, W. B. (1990). What are we talking about when we talk about Entrepreneurship?. *Journal of Business Venturing*, 5(1), 15–28
- Hatala, J. P. (2005). Identifying barriers to self-employment: The development and validation of the barriers to Entrepreneurship success tool. *Performance Improvement Quarterly*, 18(4), 50–70.
- Ishfaq Ahmed , Muhammad Musarrat Nawaz , Zafar Ahmad, Muhammad Zeeshan Shaukat, Ahmad Usman, Wasim-ul-Rehman , et al. (2010). Determinants of Students' Entrepreneurial Career Intentions: Evidence from Business Graduates. *European Journal of Social Sciences*, 15(2), 14-22
- InfoDev (2007, May 8). Innovation and entrepreneurship in developing countries: Impact assessment and lessons from InfoDev's Global Network of Business Incubators. Retrieved from http://www.infodev.org/infodev-files/resource/InfodevDocuments_6.pdf
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36
- Khalan Mohammed Al Barwani, Mohammed Rashid Al Jahwari, Abdullah Said Al Saidi, Fatima Salim Al Mahrouqi (2014, Jun 12). Towards a Growing Competitive and Dynamic Small and Medium sized Enterprises Sector in Oman: Central Bank of Oman, Economics, Research and Statistics Department. Retrieved from <http://www.cbo.gov.om>

- Kitson, M., Martin, R. and Tyler, P. (2004). Regional competitiveness: an elusive yet key concept? *Regional Studies*, 38(9), 991–999.
- Koh, H. C. (1995). Factors associated with entrepreneurial inclination: An empirical study of business undergraduates in Hong Kong. *Journal of Small Business and Entrepreneurship*, 12(2), 29-41.
- Kolvereid, L. (1996). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship Theory and Practice*, 20(3), 23-31.
- Kolvereid, L., and Moen, Ø. (1997). Entrepreneurship among business graduates: Does a major in Entrepreneurship make a difference?. *Journal of European Industrial Training*, 21(4), 154–160.
- Kor, Y. S., Mahoney, J. T., Michael, S. G. (2007). Resources, capabilities and entrepreneurial perceptions. *Journal of Management Studies*, 44(7), 1191-1196.
- Kubeczko, K., Rametsteiner, E. (2002, July 20). Innovation and Entrepreneurship — a new topic for forest related research?. Discussion Paper P/2002-1, Institute of Forest Sector Policy and Economics, BOKU Vienna. Retrieved from https://www.innoforce.boku.ac.at/publications/discussion_paper_1.pdf
- Kuratko, D. F. (2005). The emergence of Entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice*, 29(5), 577–598.
- Lanero, A., Vázquez, J. L., Gutiérrez, P., García, M. P. (2011). The impact of Entrepreneurship education in European universities: An intention-based approach analyzed in the Spanish area. *International Review of Public Nonprofit Marketing*, 8(2), 111–130.
- Lee, S.M., Chang, D. , Lim, S.B. (2005). Impact of Entrepreneurship education: A comparative study of the U.S. and Korea. *International Entrepreneurship and Management Journal*, 1(1), 27–43.
- Matlay, H. (2005). Entrepreneurship education in UK business schools: Conceptual, contextual and policy considerations. *Journal of Small Business and Enterprise Development*, 12(4), 627–643.
- McMullan, W.E. , Gillin, L.M. (1998). Developing technological start-up entrepreneurs: A case study of a graduate Entrepreneurship programme at Swinburne University. *Technovation*, 18(4), 275–286.
- Muscat Daily (2015, July 15). *Muscat Daily.com*, Retrieved from <http://www.muscatdaily.com/Archive/Oman/Unemployment-rate-in-the-sultanate->
- Najat Benchiba, Robert Mogielnicki, Scott Owens, William Scott-Jackson (2016, May 28). Oman Employment Report Insights for 2016. Oxford Strategic Consulting, UK.

Retrieved from http://www.oxfordstrategicconsulting.com/wp-content/uploads/2016/01/OxfordStrategicConsulting_OmanEmployment_Jan2016.pdf

- National Center for Statistics and Information (2015). Statistical Year Book. *Issue 43-2015*.Oman, National Center for Statistics and Information.
- OECD (2006, November 15). Financing SMEs and Entrepreneurs. Policy Brief (November, 2006). Retrieved from www.sourceOECD.org
- Paramond, S. (2004). Attitude towards Entrepreneurship in organization. *The Journal of Entrepreneurship*, 13(1), 53-68
- Peter van der Zwan, Patroesjka Zuurhout, Jolanda Hessels Zoetermeer (2013, May 11). Entrepreneurship education and self-employment: The role of perceived Barriers. Retrieved from <http://www.ondernemerschap.nl/pdf-ez/H201301.pdf>
- Ruby Craven (1963, May 24). Family Role in Decision Making . *Journal of Cooperative Extension*, 1, 23-30. Retrieved from <http://www.joe.org/joe/1963spring/1963-1-a4.pdf>
- Peterman, N.E., Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of Entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129–144.
- Rakesh Belwal ,Hanan Al Balushi , Shweta Belwal (2015). Students' perception of entrepreneurship and enterprise education in Oman. *Education + Training*. 57 (8/9), pp.924 - 947
- Robinson, P., Haynes, M. (1991). Entrepreneurship education in America's major universities, *Entrepreneurship Theory and Practice*, 15(3), 41-52.
- Schaper, M. , T. Volery (2004). *Entrepreneurship and small business: A Pacific Rim perspective*. Milton. Queensland, John Wiley and Sons Australia Ltd.
- Smith, D. T. (2005). Developing self-employment among African Americans: The impact of household social resources on African American Entrepreneurship. *Economic Development Quarterly*, 19(4), 346-355.
- Tan, W.L., Long, A., Robinson, P. (1996). Entrepreneurship attitude orientation and the intention to start a business. *Journal of Small Business Management*, 13(4), 50-61.
- Tkachev, A., L. Kolvereid (1999). Self-employment intentions among Russian students. *Entrepreneurship and Regional Development*, 11(1), 269-280.
- Van Praag, C. M., Versloot, P. H. (2007). What is the value of Entrepreneurship? A review of recent research. *Small Business Economics*, 29, 351–382.
- Veciana, J. M., M. Aponte, David Uarbano (2005). University students' attitudes towards Entrepreneurship: A Two countries comparison. *International Entrepreneurship and Management Journal* 1(2), 165-182.

Veesam Chandra Reddy (2015). Influence of Family And Peers on Individual's Decision To Startup A New Business Venture. *International Journal of Research in IT and Management*, 5(12), 46-50.

Venkatachalam, V. B., A. A. Waqif (2005). Outlook on integrating Entrepreneurship in management education in India. *Decision*, 32(2), 57-71.

Wiklund, Johan, Shepherd, Dean (2005). Entrepreneurial orientation and small business performance: a configurational approach. *Journal of Business Venturing*, 20 (1), 71–91.

World Bank (2013). *World Development Indicators (WDI)*. Washington DC.

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