Entrepreneurial attributes among postgraduate students of a Pakistani university

Akhtar Ali[1], Keith J. Topping[2], Riaz H. Tariq[3]

(1. Department of Education, The Islamia University of Bahawalpur, Bahawalpur 63100, Pakistan;

2. School of Education, University of Dundee, Dundee DD1 4HN, UK; 3. University of Faisalabad, Faisalabad 38850, Pakistan)

Abstract: This paper explores entrepreneurial attributes among the students of The Islamia University of Bahawalpur, a public sector Pakistani university. Multistage sampling was employed to maximize the representation. Five hundred and twenty one master's level students from thirty departments returned completed questionnaires. Three factors emerged: self efficacy, efficiency and commitment, and entrepreneurial inclinations. The majority of the students exhibited positive entrepreneurial attributes. However, there was no significant difference between negative and positive entrepreneurial attributes. There was no significant impact of demographic variables such as gender, parental income and profession on entrepreneurial attributes. Impact on practice and policy is discussed.

Key words: university; entrepreneurship; attitudes; survey

1. Introduction

Entrepreneurship development has emerged as a university function. Universities produce the future pool of entrepreneurs. Consequently, the entrepreneurial attributes of university students have become a matter of great concern. Entrepreneurial attributes include: looking for opportunities, taking the initiative, making decisions, seeing things through, identifying problems and finding creative solutions (Swain, 2008).

The detection of certain distinctive entrepreneurial personality traits has enabled researchers to discriminate future entrepreneurs from non-entrepreneurs. Factors enhancing entrepreneurial attitudes have been investigated. Achievement motivation and self-image have emerged as the major contributory factors (Pillis & Reardon, 2007). Parental professions, the academic and professional qualifications of parents, their attitudes towards entrepreneurship and university environment have also been focused upon (Gurol & Atson, 2006; Zampetakis & Moustakis, 2006). Schroeder and Rodermund (2006) found that family background, parenting style and educational background could predict developmental patterns of enterprising interest among future entrepreneurs. These demographic factors also appeared to have a significant impact on building entrepreneurial types of personality.

A high need for achievement, high entrepreneurial intention, instrumental readiness, high entrepreneurial acceptability, creative behavior, initiative taking, taking responsibilities, involvement in various types of risks, self-confidence, an internal locus of control, need for independence and autonomy, accomplishment of tasks with

Akhtar Ali, Ph.D., assistant professor, Department of Education, The Islamia University of Bahawalpur; research field: higher education.

Keith J. Topping, Ph.D., professor, School of Education, University of Dundee; research field: psychological research.

Riaz H. Tariq, Ph.D., professor, vice chancellor, University of Faisalabad; research field: science education.

energy and commitment, team building, working in teams and independently, working under pressure, leading others, analytical competencies and persistency in following aims have all emerged as the major attributes of the entrepreneurial personality (Martinez, Mora & Vila, 2007; Ramayah & Harun, 2005; Rodermund, 2004).

Research showed that educational programs significantly affected entrepreneurial attitudes of university students. A considerable improvement in entrepreneurial attitudes was reported in university students as a result of participation in entrepreneurial teaching programs (Schroder & Rodermund, 2006; Soutaris, Zerbinati & Al-Laham, 2007; ZHAO, Seibert & Hills, 2005). One can conclude that educational programs can stimulate the hidden entrepreneurial potential of students (Wilson, Brown, Anderson & Galloway, 2003).

Consequently enterprise and innovation are increasingly being acknowledged by governments as a driving force behind innovative change and job creation. This influencing higher education and governments are encouraging the introduction of enterprise into the curriculum. Students are calling for opportunities to develop and test their entrepreneurial skills. Industry is looking for an element of entrepreneurial creativity in its top class graduate recruits (Gibb, 2008).

2. Entrepreneurship in Pakistan

Pakistan is a small country in a large competitive global market. It is becoming increasingly important to develop a strong and vibrant entrepreneurial community (Institute of Business Management, 2007). Many international surveys find that Pakistan has strong potential to be an entrepreneurial nation, but there are problems that prevent it from being so. The first is entrepreneurs' efforts to become wealthy overnight, without moving up the ladder gradually. This overconfidence and lack of understanding for proper business techniques has caused the downfall of many entrepreneurial ventures. The second issue preventing entrepreneurial growth in Pakistan is that many women are not given the opportunity to start a venture and nurture into a successful business. Women are looked upon as "food-makers" rather than "food-earners". However, research does show that those women who have been given the chance and proper resources have worked to become strong entrepreneurs. As an increasing number of women are fighting for their right to enter into the business world, entrepreneurship amongst women is giving rise to some excellent business ventures (Pakistan Entrepreneurship, 2008).

In Pakistan, women entrepreneurs do not enjoy the same opportunities as men, owing to a number of deep-rooted discriminatory socio-cultural values and traditions. These restrictions can be observed within the support mechanisms that exist to assist such fledgling businesswomen. They suffer from a lack of access to capital, land, business premises, information technology, training and agency assistance. The inherent attitudes of an ancient society—that men are superior to women and that women are best suited to be homemakers—create formidable challenges. Women also receive little encouragement from male family members, resulting in limited geographical mobility and a lack of social capital (Roomi & Parrot, 2008). However, the majority of those women who are enabled to become entrepreneurs (71%) have successfully achieved their objectives and are determined to continue their current business (Bhutta, 2000). Like the men, women entrepreneurs also perceive education and training as the most important influences for their entry into the entrepreneurial world (Riaz, 2002).

The World Bank's *World Governance Indicator Report* finds that Pakistan's political instability and violence in the last and present decade has made people pause before starting as an entrepreneur in the country (World Bank, 2008). Moreover, innovation and risk taking is severely inhibited by the interfering role of government in the marketplace. From the early days of planning, when protection and subsidy policies determined winners in the

market place, entrepreneurship has been diverted to seeking government favors. Government economic policy seeks to promote growth through a basically "mercantilist" approach, where domestic commerce is heavily regulated (Haque, 2007).

The gap between the rich and the poor has widened during and after the period of President Pervez Mussraf's regime. The latest estimate of the inflation-adjusted poverty line is 944.47 Rupees per adult equivalent per month. The headcount percentage of population below the poverty line stands at 22.32 percent (Khan, 2008a). At the moment, the country is passing through a serious socioeconomic crisis. According to economic surveys in 2007-2008 Pakistan's economy grew by 5.8 percent, against the original target of 7.2 percent. The survey conceded that there were failures in major areas, particularly GDP growth rate, agriculture, overall manufacturing, large scale manufacturing, inflation, fiscal policy, exports, imports, current account deficit and trade balance. Pakistan missed major economic targets set for the outgoing financial year. Per capita income for the financial year 2007-2008 (US $1,085) is still 27 times lower than the UK, whereas food inflation was estimated at 15% (Haq, 2008). A 4.7% deficit in GDP (459 billion rupees) has been shown in the recently released budget 2008-2009 estimates (Qamar, 2008). Only half of one percent of the GDP is being spent on universities. Public spending per student (at present about US $670) remains well below the average found in fast-growing developing countries such as in OECD member states (Government of Pakistan, 2006a; Higher Education Commission, Pakistan, 2008a). Nonetheless, in the last few years the entrepreneurial class in Pakistan has been on the rise. The interesting thing is that the trend of rising entrepreneurship continues in spite of growing political challenges and unstable business environments.

3. Entrepreneurship at university

Policy making agencies have shown some serious concern about entrepreneurial promotion at Pakistani universities. The Higher Education Commission emphasized that universities not only develop the mastery of subject matter, but also the ability to think critically, innovate, communicate, work effectively in teams, and develop entrepreneurship opportunities and flexibility among their graduates. Universities are expected to play a key role in the national development process, by creating, using, and diffusing new knowledge through the establishment of technology parks and business incubators, and making possible access to venture capital and other such schemes (Rahman, 2008).

Two entrepreneurship centers have been established at Bahauddin Zakariya University Multan and Lahore University of Management Sciences. These centers aim to enhance the decision-making, entrepreneurial initiation and business development ability of future entrepreneurs. A target is to produce "job creators" not "job seekers" in society. To strengthen the country by promoting economic growth in the region and increasing the economic livelihood of the community and people are significant aims at these units (Institute of Business Management, 2007). At present, none of the public sector universities in the country offers an independent course on entrepreneurship. However, the University of the Punjab Lahore, the University of Sindh Hyderabad, the Bahauddin Zakariya University Multan and Lahore University of Management Sciences all offer either a compulsory or an elective entrepreneurship course unit to their Master's level business students (Higher Education Commission, 2008b). At the moment, there is a very little research being done and published in the field of entrepreneurship in Pakistan (Lahore University of Management Sciences, 2007). Only two Ph.D. studies on entrepreneurship have so far been reported by the Higher Education Commission, to the credit of Bahauddin

Zakariya University Multan (Higher Education Commission, 2008c). However, there is high demand to promote a culture of entrepreneurship among the students and staff in Pakistani universities in seeking resources and opportunities (Mian, 2006).

The Islamia University of Bahawalpur is a middle size general university in the country, with 44 teaching departments and 12,000 students enrolled in various types of Bachelor's and Master's level programs. Moreover, 275 Ph.D. and 750 M.Phil. students are working on their research projects (Khan, 2008b). Here, the Faculty of Business and Commerce offers either compulsory or elective entrepreneurship course units to its Master's level students (The Islamia University of Bahawalpur, Pakistan, 2008). The university has developed to become an enterprise university for developing partnership with the indigenous labor market and local community to improve economic growth and regeneration of social wealth. It has set out to offer innovative programs of an applied nature that will satisfy the needs of students and employers in relation to the world of work. The university has predicted that by the year 2015, it will play a leading role and produce a sufficient number of professionals and social scientists to improve quality of life across the board. Its mission is to produce a variety of scientists and researchers, responsive to national needs and priorities, but focusing more on issues relating to the socio-economic development of Southern Punjab (http://www.iub.edu.pk/Vision.jsp.).

The potency of the entrepreneurial class is usually evident in the entrepreneurial attitudes of university students. However, no considerable research work on the entrepreneurial attitudes of the university students has so far been published from Pakistan. This article will investigate entrepreneurial attributes among the Master's students of The Islamia University of Bahawalpur, Pakistan.

4. Methodology

4.1 Sampling

In 2007, there were 111 universities and degree-awarding institutions functioning in the country under both the public and private sector (Higher Education Commission, 2008d). The *Task Force Report* (2002) detailed that 85 percent of students in universities were enrolled in public sector institutions. Thus the public sector universities were mainly responsible for controlling the quality of higher education. Therefore, it was decided to use this important group. Among the various types of public sector universities, the general universities (not specialising in particular subjects) represented the largest group of population, and these were focused upon. From these, one university with ambitions to develop entrepreneurship was selected, partly for reasons of convenience. Then multistage sampling was employed to maximize representation, selecting the science, arts and business departments. Random sampling was undertaken within the strata of male and female students from those departments. The consequent sample consisted of 600 students.

4.2 Questionnaire

After a wide literature review, a number of sample questionnaires regarding entrepreneurial attitudes of university students were downloaded or received from colleagues (mainly from the US, Germany, Spain, China and Malaysia). From consideration of these possibilities, a 45-item questionnaire was developed, featuring an 8-point Likert scale for responses (see Appendix). The questionnaire was mainly adapted from the Ramayah and Harren (2005) 7-point agree-disagree Likert-type scale for assessing entrepreneurial intention among the students of University Sains Malaysia. This scale was largely concerned with need for achievement, locus of control, self efficacy, instrumental readiness, subjective norms and entrepreneurial intentions. The reported reliability value for

the scale was 0.85. Keeping in mind the local requirements, the language and content of the items were adapted. Cross validation of items was made by: (1) adding conditional items (items number 12, 20 and 30); (2) adding negative items (e.g., items number 6, 8 and 11); and (3) putting the items in random order. Responding to the suggestion of Boone (1997), another modification was the change to an 8-point Likert scale. The scale points one and eight were labeled respectively with strongly disagree and strongly agree options while the intermediate points were left uncharacterized. According to Boone (1997), the tendency to pick the neutral response in such inventories is more common in Asian cultures. The neutral option therefore needed to be eliminated. The questionnaire was then translated into Urdu.

A panel of two experts was requested to consider the content validity and face validity of the instruments in both the languages. Items obtaining approval from 80% or more of the experts were retained. Inappropriate items were revised in the light of the critical comments of the experts. The final questionnaire consequently consisted of 45 items. A Cronbach alpha of 0.80 indicated high reliability. The questionnaire was then piloted on a sample of 20 students. This led to some further adaptations. The Urdu and the English versions of the questionnaire were subsequently used together for data collection.

4.3 Response rate and analysis

The questionnaire was distributed among twenty students from each of the departments contacted, with proportionate numbers of students who were male and female. Participation was voluntary. The return rate for the questionnaire varied from department to department. Six hundred students of the thirty departments received the questionnaires. A total of 521 students responded within the scheduled period of two months. The response rate was 87%. Fifty-one percent of the participants were females, a higher proportion than might be expected from the presence of females in the universities. The data analyzed in two steps. In the first step a factor analysis was conducted on questionnaire responses. In the second step descriptive statistical techniques were applied to the data. On occasion where discrepancies seemed large, inferential statistical analysis was applied.

5. Results

5.1 Factor analysis

A principal components analysis followed by Varimax rotation was conducted for the data set. Kaiser Mayer-Olkin measure of sampling adequacy, Bartlett test of sphericity, and anti-image correlation were calculated. A high value of Kaiser Mayer-Olkin measure of sampling adequacy (0.80), highly significant Bartlett test of sphericity (chi-square: 900.551; Significance: $p<0.000$) and less than 0.1 value of the anti-image correlation indicate that the data exhibited quite normal behaviour and were interpretable. Hence it was safe to apply Factor analysis to the data. A three-factor solution was accepted for the data set. This accounted for 46.62% of the common variance. The first group of four items (30, 31, 32 and 33), the second group of four items (13, 15, 17 and 21), and the third group of four items (26, 28, 29 and 34) loaded respectively on self efficacy, efficiency and commitment and entrepreneurial inclinations (see Table 1).

Convergent validity and discriminant validity of the three dimensions were calculated. The measuring instrument had more than 80% content validity. Convergent validity was 89.39%, whereas all the subscales (self efficacy, efficiency and commitment, and entrepreneurial inclinations) had 100% convergent validity. The discriminant validity of the questionnaire was calculated as 10.61%. The adequately high value convergent validity and relatively low discriminant validity of the research tool gave confidence that it was measuring the

desired construct. The reliability of the measuring instrument was 0.81, and the reliability of all the subscales of the research tool was no less than 0.72.

Table 1 Factor matrix of entrepreneurial attributes among students

Factor No.	Attributes	Q. No.	Items	Factor loadings	Variance explained (%)
1	Self efficacy	30	There is a direct connection between how hard I study and the grades I get.	0.706	17.551
		31	I set goals for myself in order to direct my activities.	0.688	
		32	Working hard is something I like doing.	0.699	
		33	When confronted with a problem I can usually find several solutions.	0.561	
2	Efficiency & commitment	13	When I make plans, I am almost certain that I can make them work.	0.675	14.781
		15	I would prefer to be self-employed and independent, rather than work for others.	0.705	
		17	I am more efficient because I do more work in less time.	0.668	
		21	It is important to teach students about entrepreneurship and starting a business.	0.436	
3	Entrepreneurial inclination	26	I feel that the risks and insecurities associated with being in business are acceptable.	0.631	14.288
		28	I like to take calculated risks with new ideas.	0.595	
		29	A comprehensive unit on how to run a business would be a useful course for me.	0.572	
		34	I have seriously considered starting my own business sometimes after graduate.	0.631	
Total variance explained					46.620

Notes: Rotation varimax: Cronbach alpha for total scale: 0.815; Cronbach alpha reliability for individual scales: 0.726; Kaiser-Meyer-Olkin measure of sampling adequacy: 0.802; Bartlett test of sphericity: 900.551; Df=66; Sig.=0.000; Convergent validity in the entire individual subscales: 100%; Overall convergent validity: 89.39%; Overall discriminant validity: 10.61%; Anti image correlation: Less than -0.1.

5.2 Main analysis

The opinion of students on self efficacy, efficiency and commitment, and entrepreneurial inclinations were calculated by adding the frequency of items under each subscale and calculating the positive and the negative frequency, percentage and mean of the responses within each category. The responses coming under 1-4 points indicated negative attitude whereas those from 5-8 points were treated as positive attitude. The students' entrepreneurial attributes on each factor were determined. Then overall entrepreneurial attitude was similarly calculated (see Table 2). The effects of the demographic variables were also analyzed.

Regarding entrepreneurship, 71% of students indicated positive attitudes in self efficacy. Sixty four percent of participants felt that they were positive in terms of entrepreneurial efficiency and commitment. Sixty two percent of respondents gave positive indications towards entrepreneurial inclinations. As a whole, 66% of informants revealed positive entrepreneurial attributes. There was no significant difference between negative and positive entrepreneurial attributes (negative mean=263.75, negative standard deviation=177.16; positive mean=515.62, positive standard deviation=344.45; df=3, t=-2.90, Sig.=0.062), although the difference was quite large and approached significance.

Among demographic variables, only fathers' education had a significant effect on entrepreneurial self efficacy of the students. It was evident that respondents belonging to higher secondary fathers' qualification group

had higher self efficacy compared to participants with highly qualified fathers (father education, higher secondary-other, mean difference=1.079, df=519, F=3.10, Sig.=0.014). There was no significant impact of gender, residence, mother's education, father's occupation, and subject of study or parents' income on the self efficacy of the respondents.

Table 2 Entrepreneurial attributes among students

Factors	Students' perception						Total frequency
	Negative			Positive			
	Frequency	Percentage (%)	Mean	Frequency	Percentage (%)	Mean	
Self efficacy	584	28.07	146	1,496	71.92	374	2,080
Efficiency & commitment	738	35.49	184.5	1,341	64.50	335.25	2,079
Entrepreneurial inclinations	788	37.95	197	1,288	62.04	322	2,076
Overall entrepreneurial attitudes	2,110	33.83	527.5	4,125	66.15	1,031.25	6,235
Paired sample t-test	Negative mean 263.75	Negative standard deviation 177.16		Positive mean 515.62	Positive standard deviation 344.45		t=-2.90 Sig.=0.062 df=3

However, parents' income had significant impact on entrepreneurial efficiency and commitment. Respondents of the Rs 30,000-40,000 income bracket had higher level efficiency and commitment to entrepreneurship than the participants of Rs 40,000-50,000 and Rs 20,000-30,000 income groups (Rs 30,000-40,000—Rs 40,000-50,000, mean difference=1.688, df=518, F=2.679, Sig.=0.016; Rs 30,000-40,000—Rs 20,000-30,000, mean difference=1.402, df=518, F=2.679, Sig.=0.036). In the rest of the cases, entrepreneurial efficiency and commitment were at a similar level in all income groups. There was no significant impact of gender, residence, nature of subject, education and occupation of parents on entrepreneurial efficiency and commitment.

As far as entrepreneurial inclinations were concerned urban students indicated a higher risk propensity than their rural counterparts (rural mean=4.83, rural sd=2.631; urban mean=5.30, urban sd=2.345; df=504, t=-2.048, Sig.=0.041). There was no significant impact of gender, nature of subject, parents' income and occupation on entrepreneurial inclination of the students.

6. Discussion and conclusions

The majority of the students exhibited positive entrepreneurial attributes. However, despite the big difference between positive and negative entrepreneurial attributes, no statistically significant difference was found. This might be due to the large variance on the positive side. There was a partial effect of residence, parents' education and income on entrepreneurial attributes. The rest of the demographic variables (such as gender, nature of subject and parents' occupation) failed to yield any significant effect. Generally, middle class urban students (income range Rs 30,000-40,000) indicated better entrepreneurial attributes than lower and upper middle class rural students did. Only 8.5% participants belong to this group. Seventy five percent of students fitted into lower income brackets. At the time of the research, some entrepreneurial courses were being offered to the students of the Faculty of Commerce and Business Management, but this did not yield any significant difference in the entrepreneurial situation. Thus, a similar type of entrepreneurial situation (neither satisfactory nor dissatisfactory) prevails at all the departments of this university.

7. Action implications

Entrepreneurship has a significant position in the rapidly changing socioeconomic scenario of the world. Pakistan still seems at an initial stage of entrepreneurial thinking. Neither satisfactory nor dissatisfactory entrepreneurial situation of this university demands serious consideration on the part of university authorities. There is a dire need of entrepreneurial behavior, which can be developed through entrepreneurial courses. Therefore, the university authorities should be thinking to offer such courses either at department, faculty or university level. Government of Pakistan (2006b) indicated that less than 5% candidates of this university could succeed in securing an appropriate job (Government of Pakistan, 2006b). The majority of university graduates are still job seekers. It is difficult or impossible for the government to provide everybody with a job. At the moment, about 0.12 million (3.73%) of the total of unemployed people (3.32 millions, 6.5%) are either Bachelor or Master degree holders (Government of Pakistan, 2006c). There is an urgent need to equip the market with job creators-entrepreneurs. This might afford a considerable improvement in the national economy.

The present research might stimulate further research work in the field. The specially designed measuring instrument developed by the researchers could be a help for future investigators. By taking into account the example of other developed countries, Pakistan could boost its economy through entrepreneurial promotion. University students properly trained can play a leading role in this regard. This study is useful in identifying suitable students for any entrepreneurial activity in future. With the support of government, they can promote entrepreneurial culture in the country.

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Appendix: Entrepreneurial attributes among postgraduate students

This questionnaire is designed to explore the entrepreneurial attributes among university students. An entrepreneur is a person who organizes and manages an independent business and usually takes the financial risks. Your opinion matters a lot in the completion of the study. Please be honest in completing the questionnaire. Answer all the questions, either by putting one tick against the option of your choice (an eight point scale is often provided), or supplying the information in writing wherever required. The information provided by you will be kept confidential and used for research purpose only.

Class: ☐M.A. Previous ☐ M.A. Final ☐ M.Sc. Previous ☐ M.Sc. Final

Gender: ☐ Male ☐ Female

Faculty:……

Parents' education level:

Father: ☐ No Education ☐ Primary ☐ Secondary ☐ Higher Secondary ☐ Other

Mother: ☐ No Education ☐ Primary ☐ Secondary ☐ Higher Secondary ☐ Other

Father's occupation:

☐Private sector employee ☐ Public sector employee ☐ Self-employed or entrepreneur ☐ Retired ☐ Unemployed ☐ Other

Residence: ☐Urban ☐ Rural

Total approximate monthly income from all sources

From RS 6,000 to 10,000 ☐ From RS 20,000 to 30,000 ☐ From RS 10,000 to 20,000

From RS 40,000 to 50,000 ☐ From RS 50,000 to 100,000 ☐ Over RS 100,000

Have you been in charge of other people? ☐Yes ☐ No

Do you personally know any entrepreneur? ☐ Yes ☐ No

(If yes) I know this entrepreneur's activity very well ☐ Yes ☐ No

This entrepreneur may be considered as a "good entrepreneur"

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I believe that my closest friends think that I should pursue a career as an entrepreneur

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I do not care what people who are important to me think if I decide to be an entrepreneur

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I am good at handling unforeseen situations

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

Sometimes I feel that I don't have enough control over the direction my life is taking

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I believe that my closest family thinks that I should pursue a career as an entrepreneur

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

My misfortune results from the mistakes I make

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I do not care what my closest friends think if I decide to be an entrepreneur

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

In my case getting what I want has nothing to do with luck

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

When I make plans, I am almost certain that I can make them work

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I have access to supporting information to start being an entrepreneur

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I would prefer to be self-employed and independent, rather than work for others

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I prefer a logical approach in decision-making

1 2 3 4 5 6 7 8

Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I am more efficient because I do more work in less time

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I have access to capital to start being an entrepreneur

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I believe that people who are important to me think that I should pursue a career as an entrepreneur

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I would seriously consider starting my own business if I can't find a job

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

It is important to teach students about entrepreneurship and starting a business

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I remain calm when facing difficulties

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I am likely to make more money running my own business than working for others

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I am generally happy with the status quo

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I would prefer to have my own successful business than to be in a secure and well paid job

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I feel that the risks and insecurities associated with being in business are acceptable

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I closely monitor areas where I know I need more practice

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I like to take calculated risks with new ideas

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

A comprehensive unit on how to run a business would be a useful course for me

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

There is a direct connection between how hard I study and the grades I get

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

I set goals for myself in order to direct my activities

	1	2	3	4	5	6	7	8	
Strongly Disagree									Strongly Agree

Working hard is something I like doing

1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

When confronted with a problem I can usually find several solutions
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I have seriously considered starting my own business sometimes after graduate
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I would seriously consider starting my own business if I could be taught how to do it
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I like the opportunity to come up with innovative solutions to problems
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

When working in group I prefer being a leader rather than a follower
1 2 3 4 5 6 7 88
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

Running my own business would be more prestigious than working for others
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I have good social networks that can be utilized when I decide to be an entrepreneur
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

I look forward to return to work when I am away from my work
1 2 3 4 5 6 7 8
Strongly Disagree |_____|_____|_____|_____|_____|_____|_____|_____| Strongly Agree

What are the two major reasons that encourage you to start a business?

a. To be my own boss ☐
b. To earn lots of money ☐
c. To use my skills and abilities ☐
d. To build something for the family ☐
e. To overcome a challenge ☐
f. Any other _____

What are the two major reasons that discourage you to start a business?

Lack of skills and ideas ☐
Problems with managing it ☐
It is too risky ☐
Not enough money ☐
Like to work for others ☐
Any other _____

Indicate two major difficulties in starting your own business:

(1)……..……..……
(2)……..……..……

Give at least two suggestions for developing entrepreneurial characteristics among university students:

(1)……..……
(2)……..……

Is there any other comment you would like to make?

……
……