

Entrepreneurship Barrier and Motivations: Perception of Lincoln University Commerce Students

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Abstract

The ambitious of being own boss and run independent own-business is widespread among university graduates. However, there are some barrier and motivations that hinder or accelerate this thrust. This paper investigates students' perceptions about impediment and stimulation of entrepreneurial activities. A sample of commerce students responds to a questionnaire survey. Results indicate that gender, age and working status of students are not significantly correlated with their perception about barrier and motivation factors of the research study. Nevertheless, financial risk and fear from failure are the most and the least important barriers respectively. University level programmes and personal experience are the most motivation factors while media and government supports are at the bottom of the list of priority of such factors. Respondents believe that entrepreneurs are good in accounting, financial analysis and having good skills and these factors are important in preparation of crating new business.

Keywords: entrepreneurship, student attitudes, entrepreneurial motivation, barrier

Introduction

University graduates are fuel to the entrepreneurial activities, as Etzkowitz (2003) claims that they are "generator" for economic development. Nonetheless, economic development objectives influence universities goals to target for development of entrepreneurship programs ultimately contribute to national economic growth. Charney and Libecap (2000) believe that demand from students' side for entrepreneurial education encourages some universities to revise their curriculum in favour of entrepreneurship programs. However, many universities hesitate to invest on entrepreneurship. The same authors report that the University of Arizona entrepreneurial graduates were successful in creating new ventures and or likelihood of self-employment three times more than other graduates of the same university. The same university's

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entrepreneurial graduates have experienced sales growth, assets increase, likelihood of developing new product and self-employment owning high-technology companies.

Massive corporate downsizing around the globe has led governments to increasingly acknowledge entrepreneurs as a key contributor to new job creation and an important factor of economic growth. There is a demand from the economic development objectives upon universities to produce motivated entrepreneurial graduates, nevertheless, some barriers obstacle universities and students to respond appropriately. In the same time other motivation factors stimulate students and promote development and implementation of entrepreneurship programs at the universities. Investigation of barriers and motivation factors from students view point is a fundamental step of creating entrepreneurial programs responsive to economic developmental needs. To address this necessity, an exploratory study of commerce student perceptions about barrier and motivation factors of entrepreneurship is considered relevant in this paper.

The rest of this paper is organised as follows. The first section is literature review, and second section presents research questions and hypotheses. Research methodology is presented at section three while findings in three parts of; barriers, motivation and criterion of creating own business are illustrated at fourth section. The last section is conclusions and remarks.

Literature Review

There is a body of literature suggesting empirical research should be redirected to the entrepreneurial attitudes of university students. Consequently this topic comes to centre of focus in many research studies. In these papers demographic factors such as gender, background, ethnicity and age in relation to grade average, risk, policy, intention to entrepreneur and effect of entrepreneur programs are the most repeated factors in analysis students' attitudes (Mgaya and Magembe, 2007, Venesaar, Kolbre and Piliste, 2006, Veciana, Aponte and Urbano, 2005, Ramayah and Harun, 2005, Wang and Wong, 2004, Okey Mukhtar and Kipling, 2002, Romero and Asuncion, 2001, and Ede and Panigrihi, and Calcich, 1998). However, it is reported that students' attitudes are changing over time (Matthews Moser, 1996). Frazer and Niehm, (2008) investigate Family and Consumer Sciences (FCS) students' attitudes towards entrepreneurship as a future direction of their career. They provide some theoretical suggestions for FCS program. The result of this questionnaire survey depict that entrepreneurial education built a solid confident of starting own business while creating an appropriate idea for a new business is considered not an easy task. Furthermore, developing a business plan and skill are considered as important factors (Frazer and Niehm, 2008). In the same direction Harris, and Gibson (2008) examine Small Business Institute (SBI) program students' attitude of multiple US universities. They use entrepreneur attitude orientation

survey instrument which includes; achievement and innovation in business in one hand and personal control over outcomes and self-esteem on the other hand. Based on the demographic data of gender and entrepreneurial family background they conclude that male perceive control over business and innovation more important than female students while entrepreneurial family background contribute more in respondents' entrepreneurial attitudes (Harris and Gibson, 2008).

Wu (2004) longitudinal PhD dissertation examines nascent entrepreneurs' motivation and aspiration. She finds that entrepreneurs actively research for business ideas and creation information at very early stage of starting a new own business. However, contrary to low motivated nascent entrepreneurs, highly motivated are highly satisfied with wealth aspiration (Wu, 2004). Gelderen et al. (2008) use planned behaviour theory to investigate students' entrepreneurial intentions. They reveal that financial securities and entrepreneurial awareness are the most important factors. Eeden, Louw and Venter (2005) study entrepreneurial orientations of the USA, South Africa and the Netherlands undergraduate students. A list of 17 entrepreneurial traits present to 1,528 students that US students' mean of importance for majority of traits was higher than the other countries. However, entrepreneurial traits were differed among three countries (Eeden, et al., 2005). In another survey in the same area, Segal, Borgia and Schoenfeld (2005) investigate perception of undergraduate students of US Gulf Coast University. They report that desirability and feasibility of self-employment is related to the tolerance for risk of students.

Motivations of 572 entrepreneurs from three Vietnam major cities were focus of study in a research project. Income and independence was the most motivated factors for Vietnamese respondents. The respondents consider friendliness, competitive prices good product and customer services as the most important successful factors in their entrepreneurial businesses (Chu & Benzing, 2004).

In the area of university education related to entrepreneurial activities, the recent paper of Shinnar, Pruett and Toney (2009) tests attitudes of student and faculty of a 4-year university in the USA. They suggest that attitudes of students and faculty have different towards occupational aspiration. While there is no different between entrepreneurial attitudes of male and female students, the results of Shinnar et al. (2009) depict that non-business students demanding university level entrepreneurship education. However, as cited by Shinnar et al. (2009) some universities offering entrepreneurial related courses for engineering (Rae-Dupree, 2001), geography, earth and environmental science (Maguire and Guyer, 2004). In the same area Kauffman Research Series presents the impact of entrepreneurship education on the students' of University of Arizona, USA (Charney & Libecap, 2000). This curriculum includes entrepreneurial business related courses to provide undergraduate students majoring in entrepreneurship and postgraduates' choice of concentration in the same area. Etzkowitz, Webster Gebhardt and Terra (2000) explain that

university external and internal factors that coupled with knowledge-based technology are forcing universities to restructuring their curriculum to include entrepreneurial education.

Research Questions and Hypotheses

This research focuses on the broad question of: what are the barrier and motivation factors of entrepreneurial activities from students view point? Specifically, the study attempts to address the following detailed questions.

1. Is students' perception about barrier and or motivation factors of entrepreneurial activities differ in accordance to their gender, age, the risk they attach to entrepreneurial activities and their working status?
2. What are the most important barrier and or motivation factors perceived by commerce students?

Hypothesis testing is used in this research. The null hypotheses of the study are developed based on the above questions in two sections of entrepreneurship barrier and motivation factors as follows.

Entrepreneurship Barriers

The first four null hypotheses investigate the attitudes of Lincoln University commerce students and their perceptions about barrier factors of entrepreneurial activities. For these hypotheses independent variables of gender, risk that attach to entrepreneurial activities and working statues of students considered relevant.

- H1-1: There is no relationship between gender of commerce students and their perception about entrepreneurial barrier factors.
- H1-2: There is no relationship between the risk that commerce students attach to entrepreneurial activities and their perception about entrepreneurial barrier factors.
- H1-3: There is no relationship between working status of commerce students and their perception about entrepreneurial barrier factors.
- H1-4: There is no relationship between age of commerce students and their perception about entrepreneurial barrier factors.

Entrepreneurship Motivations

The next four null hypotheses test the Lincoln University commerce students' perceptions about motivations of entrepreneurial activities. The same independent variables as previous considered relevant in null hypothesis development.

- H 2-1: There is no relationship between gender of commerce students and their attitudes towards entrepreneurial motivation factors.

- H2-2: There is no relationship between the risk that commerce students attach to entrepreneurial activities and attitudes towards entrepreneurial motivation factors.
- H2-3: There is no relationship between working status of commerce students and their attitudes towards entrepreneurial motivation factors.
- H1-4: There is no relationship between age of commerce students and their attitudes towards entrepreneurial motivation factors.

Research Methodology

Lincoln University commerce students' attitudes towards entrepreneurial barriers and motivations are analysed in a questionnaire survey. T-test is used to investigate the validity of response then statistical analysis (i.e. regression and correlation) study the relationship between the level of risk that students consider relevant for entrepreneurial activities and their demographic data on one hand and barriers/motivations for hypotheses testing on the other hand. Descriptive analysis (i.e. mean, standard deviation) is employed to investigate the importance of barrier and motivation factors.

Research Instrument

The questionnaire of the study developed based on a variety of previous research questionnaires (i.e. Shinnar, Pruett and Toney, 2009, Venesaar, Kolbre and Piliste, 2006, the International Labour Organisation questionnaire - ILO, 2005, Veciana et al., 2005 and Ramayah and Harun, 2005 and Wu, 2004) and consulting with five university lecturers with strong entrepreneurial background. 5-point Likert scale is used in developing the questionnaire to investigate students' attitudes towards barrier and motivation factors. The entrepreneur experts check the first draft of the questionnaire. A group of 20 senior commerce students answer the questions while testing easy of reading and understanding. A pilot study was conducted to investigate possible change into the final draft of the questionnaire.

The questionnaires were administered at the end of lectures of all commerce courses at week 10 of the semester with the permission of the lecturer. Answer to questionnaire was voluntary; students can leave the classroom if unwilling to answer. However, 228 including 110 male and 118 female students hand over completed questionnaires.

Findings

This study investigates the attitudes of commerce students towards barrier and motivation factors of entrepreneurial activities. The respondents are classified by gender, age and working status. The students are classified as "low risk" if

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they believe that risk of starting own business is “not involve any” or “moderate”, otherwise if they consider the risk of starting own business “a lot” or “much” they classified as “high risk”. Similarly students who have a job while studying considered as “working” otherwise “not working”. The results of data analysis are presented in three sections of barriers, motivations and criterion of creating own business.

Barriers

A series of regression analysis run simultaneously to investigate the relationship between gender, age and working status with the importance of 13 barrier factors that may prevent students from starting own business. Correlations are too weak to explain statistical significant relationship between gender, age and working status of and their perception about the important barrier factors presented in the questionnaires. Therefore, all four null hypotheses related to barrier factors of entrepreneurial activities are accepted. The results of regression analysis reveal weak statistical relation between the independent variables of gender, age and working status with 13 barrier factors. Table 1 presents five factors that exhibit statistically significant correlation (at 0.01 and 0.05 level 2-tailed) with Gender of students. Other barrier factors and students characteristics that are not included in table 1 illustrate no statistically significant relationship.

Table1: Correlations of five barrier factor with statistically significant relationship

Barrier Factor		Gender
Level of competition in the proposed line of business	Pearson Correlation	.191**
N = 228	Sig. (2-tailed)	.004
Financial risk	Pearson Correlation	.161*
N = 228	Sig. (2-tailed)	.015
Social safety net/security	Pearson Correlation	.154*
N = 228	Sig. (2-tailed)	.020
If I fail, what will my family think of me	Pearson Correlation	.134*
N = 228	Sig. (2-tailed)	.043
Level of corruption in business	Pearson Correlation	.132*
N = 228	Sig. (2-tailed)	.047

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 2 presents the mean and standard deviations of 13 factors that impede students from starting own business. In this table students are classified by gender, working status and the risk that they considered relevant to start own business. All eight groups of students spread away in terms of the level of importance of 13 barrier factors in table 2. Male and female students who work and study believe that failure (*If I fail, what will my family think of me*) is not an barrier factor (2.1, 2.5, 2.6 and 2.4 for male and 3.3, 2.6, 3.0 and 2.6 for female students working with high or low risk respectively).

Having to Payback student loan is not an important barrier for male and female not working with low or high risk (2.9 for male low and high risk and female low risk and 3.0 for female high risk). Male students working with low risk and female from the same category have an opposite attitudes about *Having to Payback student loan* factor, male students consider this factor as one of the least important while female consider it as the most important barrier factor. However, students who are working consider this factor as important.

Except not working low risk students all other groups believe that *financial risk* is the most important factor (3.5, 4.2, 4.0 and 4.2 for female and 3.5, 4.1 for working male, 3.8 for male not working high risk) for entrepreneurial activities. However, male not working with low risk consider this factor (mean 3.3) as their second important after the demand for their product or services (*People would not have a need for my proposed product/services*) with mean of 3.6.

Table 2: Attitudes of students about barriers of starting own business

	Working				Not Working			
	Low Risk		High Risk		Low Risk		High Risk	
Male:	μ	Δ	μ	δ	μ	Δ	μ	δ
Having to Payback student loan	2.0	1.301	3.2	1.112	2.9	1.022	2.9	1.243
Level of competition in the proposed line of business	3.2	0.975	3.7	0.782	3.2	1.013	3.4	0.818
Financial risk	3.5	0.855	4.1	0.571	3.3	0.978	3.8	0.711
Social safety net/security	3.2	0.893	3.3	0.753	2.8	0.827	3.2	0.763
If I fail, what will my family think of me	2.1	0.864	2.5	1.145	2.6	1.093	2.4	1.062
Risk of failure	3.0	1.038	3.7	0.754	3.1	1.004	3.6	0.823
Level of corruption in business	2.3	1.069	3.1	0.616	2.7	1.218	3.0	0.948
People would not have a need for my proposed product/service	3.0	1.240	3.4	0.820	3.6	0.960	3.3	0.873

Tax law (complex and arbitrary)	2.8	0.975	3.2	0.851	3.3	0.933	3.1	0.713
Preparing Accounting records	2.7	0.726	3.0	0.824	3.0	0.933	2.9	0.808
Performing financial analysis	2.7	0.825	3.1	0.792	3.1	0.880	3.0	0.780
Government promotional program/policy supporting entrepreneurs	2.8	0.802	3.0	0.747	3.3	0.489	3.3	0.840
Non Government Organisations (NGO) programs supporting entrepreneurs	2.9	0.864	3.1	0.696	3.7	0.667	2.8	0.862
Female:								
Having to Payback student loan	3.8	0.627	3.3	1.429	2.9	0.944	3.0	0.930
Level of competition in the proposed line of business	3.6	0.746	3.6	0.605	3.7	0.472	4.0	0.654
Financial risk	3.5	0.876	4.2	0.528	4.0	0.399	4.2	0.582
Social safety net/security	3.2	0.651	3.5	0.750	3.6	0.785	3.5	0.760
If I fail, what will my family think of me	3.3	0.899	2.6	1.031	3.0	0.965	2.6	1.026
Risk of failure	3.7	0.734	3.5	0.929	3.8	0.778	3.5	0.916
Level of corruption in business	3.2	0.805	2.9	0.796	3.6	0.701	3.1	0.876
People would not have a need for my proposed product/service	3.3	0.746	3.7	0.653	3.3	0.733	3.4	0.913
Tax law (complex and arbitrary)	3.2	0.710	3.2	0.704	3.4	0.469	3.3	0.865
Preparing Accounting records	3.2	0.781	3.3	0.786	3.1	0.750	2.9	0.980
Performing financial analysis	3.2	0.864	3.4	0.635	3.3	0.667	3.0	0.868
Government promotional program/policy supporting	3.5	0.734	3.3	0.689	3.5	0.625	3.1	0.783

entrepreneurs								
Non Government Organisations (NGO) programs supporting entrepreneurs	3.4	0.663	3.2	0.505	3.3	0.667	3.1	0.770

Number and percentage of students in each category:

	Nu b	%	Nu b	%	Nu b	%	Nu b	%
Male	14	6.1	34	14.9	15	6.6	47	20.6
Female	13	5.7	28	12.3	24	10.5	53	23.2

According to table 2, interestingly, two factors of *preparing accounting records* and *performing financial analysis* are remaining at the bottom all eight group of students. This may indicate that commerce students are became knowledgeable about these factors in the course of study of commerce degree. However, the importances of these factors are more than 3 from maximum of 4. Nonetheless, NGO and government promotional programmes although not at the top of the priorities list, but considered as an important factor by all respondents.

Perceptions of eight groups of students are sorted by coefficient of variances (CV). The score of each factor of barrier are calculated as the heights CV equal to 13 and lowest 1, therefore the highest possible score is 104 (8*13). Table 3 presents the score of barrier factors based on this ranking system. The most repeated factor is financial risk (score =91) followed by level of competitions, NGO and government programs. The least repeated factor is *if I fail* (score =13) after *payback student loan* and *level of corruption in the business*. From these results it seems that students are more concern about business oriented factors like financial risk, competition and NGO programs than other personal factors such as student loan and fear from failure. Factors such as risk of failure, tax law and demand for product and services are in the middle of list of ranking of scores. Performing financial analysis and accounting records are less repeated factors than others.

Table 3: Score of barriers factors of starting own business

	Male				Female				Score
	Workin g		Not Workin g		Workin g		Not Workin g		
	Low Risk	High Risk	Low Risk	High Risk	Low risk	High risk	Low Risk	High Risk	
Financial risk	13	13	8	13	5	13	13	13	91

Level of competition in the proposed line of business	8	10	5	10	10	11	12	12	78
Non Government Organisations (NGO) programs supporting entrepreneurs	9	9	12	4	12	12	8	10	76
Government promotional program/policy supporting entrepreneurs	10	6	13	8	8	8	10	9	72
Social safety net/security	11	8	7	9	9	7	5	11	67
Risk of failure	6	11	4	11	11	4	7	8	62
Tax law (complex and arbitrary)	5	4	10	12	7	6	11	7	62
People would not have a need for my proposed product/service	3	7	11	6	6	10	4	6	53
Performing financial analysis	7	5	9	7	2	9	6	4	49
Preparing Accounting records	12	3	6	5	4	5	3	2	40
Level of corruption in business	2	12	1	3	3	3	9	5	38
Having to Payback student loan	1	2	3	2	13	1	2	3	27
If I fail, what will my family think of me	4	1	2	1	1	2	1	1	13

Age is considered as not an effective characteristic because most of students responded to the questionnaire survey were from the same age group of 20-25 year old. However, to present a complete perspective of students' perceptions about the barriers, age as a dependent variable is surveyed. For this investigate male and female students were classified in three age groups of below 21, 21-26 and over 26 years old. There were no significant differences observed between the perceptions of students from various age groups about barriers factors. As Figure 1 shows six lines (i.e. six age categories) for 13 barrier factors are very close and fluctuations are the same.

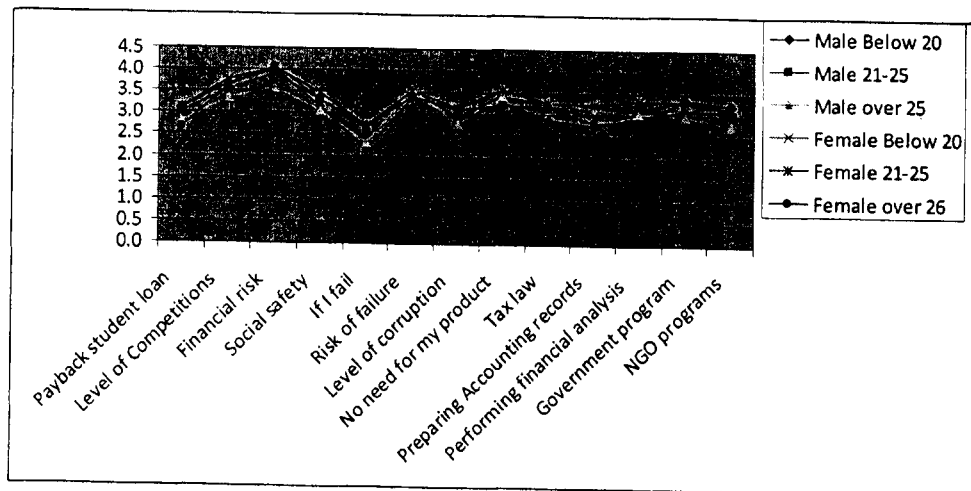


Figure 1: Mean of importance of barrier factors (age groups).

Results of factor analysis are presented in the following tables. According to table 4 (KMO and Bartlett's Test) adequacy of sampling is 0.822 which indicate that factor analysis yield distinct and reliable factors.

Table 4: Barriers factor analysis - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi-Square	1037.695
Df		78
Sig.		.000

Tables 5 to 7 present SPSS factor analysis. According to table 5 two factors with eigenvalue of more than 1 are detected by factor analysis. Table 6 and 7 illustrate Component Matrix before and after rotation. According to these tables two distinctive groups of factors are 1) solution and actions 2) risk. The first five factors in table 7 are related to finding solution and taking actions about entrepreneurial assumed problems, while factors 7 to 12 could be classified as risk factors. An explanation is that commerce students are concerned about risk while considering factors related to respond to entrepreneurial needs. They are concerned about problem solving and taking actions about their new own businesses and risk of entrepreneurial activities. Two factors are not classified as any of these two groups. Factor 6 cannot join the solution and action group while factor 13 has least relationship with risk factors.

The communalities table of factors analysis suggest to exclude few factors with low variance (<0.5). The results after excluding each of the eight such factors depict that the adequacy is decreasing and no significant change observed in factors' variances.

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.772	36.708	36.708	4.772	36.708	36.708	3.482	26.782	26.782
2	1.641	12.626	49.334	1.641	12.626	49.334	2.932	22.552	49.334
3	.986	7.582	56.916						
4	.925	7.114	64.030						
5	.869	6.688	70.719						
6	.757	5.826	76.544						
7	.678	5.213	81.757						
8	.596	4.588	86.346						
9	.451	3.473	89.818						
10	.422	3.250	93.068						

11	.374	2.880	95.948					
12	.311	2.394	98.342					
13	.216	1.658	100.00 0					

Extraction Method: Principal Component Analysis.

Table 6: Component Matrix (a)

	Component	
	1	2
Tax law (complex and arbitrary)	.728	
Preparing Accounting records	.689	
Performing financial analysis	.682	-.426
Level of corruption in business	.679	
Government promotional program/policy supporting entrepreneurs	.627	-.468
If I fail, what will my family think of me	.623	
People would not have a need for my proposed product/service	.616	
NGO programs	.592	
Social safety	.577	
Risk of failure	.566	
Level of competition in the proposed line of business	.540	.497
Having to payback my student loan	.498	
Financial risk		.662

Extraction Method: Principal Component Analysis.
a 2 components extracted.

Table 7: Rotated Component Matrix(a)

		Component	
		1	2
1	Performing financial analysis	.796	
2	Government promotional program/policy supporting entrepreneurs	.781	
3	Preparing Accounting records	.773	
4	Non Government Organisations (NGO) programs supporting entrepreneurs	.656	
5	Tax law (complex and arbitrary)	.641	
6	People would not have a need for my proposed product/service	.487	
7	Financial risk		.747
8	Level of competition in the proposed line of business		.728
9	Social safety		.640
10	Risk of failure		.621
11	If I fail, what will my family think of me		.543
12	Level of corruption in business	.461	.507
13	Having to payback my student loan		.405

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

Motivation

The same as previous section, five regression analysis run for motivation factors. R^2 for these factors are even lower than previous section, therefore no statistical significant relationship existed between motivations of starting own business and independent variables of the study. Therefore, all four null hypotheses related to motivations of entrepreneurial activities are accepted. The results of regression and correlation analysis indicate no statistical significant relation between gender, age and working statues of students and their perception about motivation factors. The only exceptions are two factors of university and pre-university background that exhibit correlation with gender (0.213 and 0.170 respectively).

Table 8 presents descriptive statistics analysis of students' perception about motivations of stating own business for eight groups of students. The effects of age on students' perception are presented separately as previous section. Comparing table 1 (barrier factors) with table 8 (motivation factors) reveals that generally motivation factors have higher mean than barrier factors. This indicates that all motivation factors are considered important as very few factors assign mean less than 3.

University study and personal experience are considered important motivation factors for commerce students which reveal the importance of university programs and training for future entrepreneurs. *Personal experience* as a motivation factor is considered the most important for all groups of students except not working with high risk female students (4.4, 4.3, 3.9, 4.2, 4.4, 4.3, 4.3 and 4.1 from low risk male to high risk female students respectively). This factor for many groups of students is followed by university background study. The lowest motivation factor is media (3, 2.9, 2.9, 2.8, 2.7, 3.1 and 3.1) for seven groups while one group (female not working with low risk) chose government support (3.1) as the lowest motivation factor. However, this factor (government support) is the second lowest for other seven groups of respondents. Considering media and *government supports* as two least motivation factors is alarming that students are passive about the role of these factors in their entrepreneurial activities. These two factors specially should take a leading role in such activities which benefit the economic development.

Table 8: Attitudes of students about motivations of starting own business

	Working				Not Working			
	Low Risk		High Risk		Low Risk		High Risk	
Male:	μ	δ	μ	δ	μ	δ	μ	Δ
Personal experience	4.4	0.497	4.3	0.567	3.9	0.990	4.2	0.711
Family	4.1	0.730	3.4	0.985	3.1	1.060	3.8	0.858
Friends	3.3	1.069	3.3	0.912	3.1	1.280	3.0	0.933
Career advisor	3.0	0.961	3.0	1.073	3.2	1.082	3.1	1.013
Media (TV, Radio, Internet)	3.0	1.240	2.9	1.077	2.9	1.163	2.8	0.907
Teachers/lecturers	3.0	1.177	3.4	1.012	3.7	0.704	3.3	0.841
Background study (pre-university)	3.1	1.207	3.3	1.249	3.6	1.056	3.3	1.031
Background study (university)	3.6	0.745	3.9	1.026	3.9	0.990	3.9	0.686
Government Support	3.0	1.177	3.1	1.149	3.1	1.407	2.8	1.147
Female:								
Personal experience	4.4	0.650	4.3	0.441	4.3	0.637	4.1	0.652
Family	3.6	1.044	3.7	0.897	3.9	0.741	3.8	0.840
Friends	3.4	0.961	3.5	0.962	3.3	0.917	3.3	0.763
Career advisor	3.5	0.967	3.4	0.786	3.3	0.963	3.2	0.853
Media (TV, Radio, Internet)	2.7	1.109	3.1	0.891	3.2	1.129	3.1	0.735
Teachers/lecturers	3.6	0.768	3.8	0.772	3.4	0.924	3.5	0.845
Background study (pre-university)	3.9	0.760	3.8	0.967	3.9	0.850	3.6	0.793
Background study	4.2	0.801	4.1	0.629	4.1	0.741	4.2	0.662

(university)								
Government Support	3.5	1.127	3.2	0.876	3.1	1.262	3.0	0.999

Number and percentage of students in each category:

	Nub	%	Nub	%	Nub	%	Nub	%
Male	14	6.1	34	14.9	15	6.6	47	20.6
Female	13	5.7	28	12.3	24	10.5	53	23.2

The same scoring system as barrier factors is used for motivation factors. Total possible score for motivation factors is 72 (8*9). Table 9 illustrate the score of nine motivation factors. Personal experience, university background and family are the highest score factors while media, government support and pre-university factors are the least repeated factors. Students rely on their own experience, university education and family background as sources of preparation for their future entrepreneurial careers. They are not count on pre-university, government support and media as a source of entrepreneurial activities motivations.

Table 9: Score of motivations factors of starting own business

	Male				Female				
	Workin		Not Workin		Workin		Not Workin		
	Low Risk	High Risk	Low Risk	High Risk	Low risk	High risk	Low Risk	High Risk	Score
Personal experience	9	9	8	9	9	9	4	9	66
Background study (university)	7	8	7	8	8	8	1	8	55
Family	8	6	4	7	3	5	8	6	47
Teacher/lecturer	4	5	9	6	6	7	2	3	42
Career advisor	6	4	5	3	5	6	9	2	40
Friends	5	7	2	5	4	2	7	5	37
Background study (pre-university)	2	2	6	4	7	4	3	7	35
Government Support	3	3	1	1	2	3	6	1	20
Media (TV, Radio, Internet)	1	1	3	2	1	1	5	4	18

The same as previous section, age characteristics of students while investigated but provide no significant differences about nine motivation factors.

Results of factor analysis of motivation factors are presented in tables 10-13. According to table 10 (KMO and Bartlett's Test) adequacy of sampling is 0.755 which indicate that factor analysis yield distinct and reliable factors. Education is considered as a one category. The same as barriers, business oriented factors

(i.e. teacher, media, career advisor and government support) are distinguished from personal factors (i.e. family, personal experience, friends). This results show positive perception of students towards starting their own businesses based of background knowledge and gaining support from experience and family instead of seeking government and other external supports.

Table 10: Motivations factors - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.755
Bartlett's Test of Sphericity	Approx. Chi-Square 417.372
Df	36
Sig.	.000

Table 11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.034	33.712	33.712	3.034	33.712	33.712	2.312	25.690	25.690
2	1.323	14.702	48.414	1.323	14.702	48.414	1.701	18.896	44.586
3	1.070	11.893	60.307	1.070	11.893	60.307	1.415	15.721	60.307
4	.862	9.574	69.881						
5	.740	8.227	78.108						
6	.582	6.469	84.577						
7	.541	6.009	90.586						
8	.455	5.052	95.637						
9	.393	4.363	100.000						

Extraction Method: Principal Component Analysis.

Table 12: Component Matrix(a)

	Component		
	1	2	3
Media (TV, Radio, Internet)	.684		
Career advisor	.683		
Friends	.681	.445	
Teacher/lecturer	.663		

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Government Support	.576		
Family	.496	.629	
Personal experience		.551	
Background study (pre-university)	.434		.595
Background study (university)	.560		.586

Extraction Method: Principal Component Analysis.

a 3 components extracted.

Table 13: Rotated Component Matrix(a)

	Component		
	1	2	3
Teacher	.773		
Media (TV, Radio, Internet)	.727		
Career advisor	.708		
Government Support	.619		
Family		.801	
Personal experience		.689	
Friends	.472	.678	
Background study (pre-university)			.820
Background study (university)			.788

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.

Criterion of Creating Own Business

Students were asked to indicate the level of importance of various factors related to entrepreneurial activities. These factors then classified as 1) interest on 2) necessary preparation of 3) benefits of starting own business. In order to compare the effect of demographic characteristics of students with their attitudes, respondents are classified into eight groups as previous sections of this study. Table 14 illustrates students' attitudes towards creating their own businesses. All factors in this table having high mean, that indicate university students are very interested in entrepreneurial activities upon graduation as an independent career.

Table 14: Attitudes of students about creating own business

	Male				Female			
	Low Risk		High Risk		Low Risk		High Risk	
	μ	δ	μ	δ	μ	δ	μ	δ
I am considering creating a new firm	3.4	0.87	3.4	0.97	3.5	0.84	3.1	0.91
		0		7		5		4

(entrepreneurial business) after graduation								
I would like to be an entrepreneur upon graduation because of family support	3.0	1.017	3.0	1.000	3.3	0.806	2.8	0.870
Entrepreneurship is an independent career	3.3	0.996	3.7	0.900	3.4	0.909	3.5	0.950

Number of students in each category:

	Nu b	%	Nu b	%	Nu b	%	Nu b	%
Number/Percentage	29	12.5	86	37.1	36	15.5	81	34.9

Table 15 follow the same grouping as table 14 but the factors are ranked by score of necessity that students attached to each factor. Total possible score for factors related to preparation of own business is 28 (7*4). *Accounting and financial analysis, background education and skills* are the most repeated factors in preparation for entrepreneurial activities. *Considering actual business situations and constraints* and believe that *entrepreneurs are good managers* are low score factors in this table.

Table 15: Score of necessary preparation for own business

	Male		Female		Score
	Low Risk	High Risk	Low Risk	High Risk	
Entrepreneurs are good at accounting and financial analysis	4	5	7	7	23
Background education will influence a future career as an entrepreneur	7	7	1	5	20
Skill is important while education and training are not as important to be a successful entrepreneur	5	2	6	6	19
Education promotes/encourages young people to engage in entrepreneurship activities	2	6	4	3	15
Entrepreneurs are professionally well prepared	3	3	5	4	15
Entrepreneurs are good at management	1	4	3	2	10
Starting a new business you need to consider actual business situations and constraints	6	1	2	1	10

Conclusion and Remarks

This paper investigates Lincoln University commerce students attitudes about barrier and motivation factors of starting own business (entrepreneurial activities) and criterion of creating own business. The results depict that gender, age and working status of respondent are not significantly effect their perception about entrepreneurial activities. However they emphasis financial risk is an important barrier and consider fear from failure as least important barrier. University programmes and personal experience are most motivated factors and media and government supports are the least ones.

This study reveals that students are considering to creating their new firm upon graduation, would like to be entrepreneur and look at entrepreneurship as a career. Respondents believe that an entrepreneur should be good in accounting and financial analysis and educational background in general will influence entrepreneurial activities. However, they believe that skill is important for crating new own business.

This result of the study suggest that students are much concern about barriers of entrepreneurial activities they demand for appropriate education and training to be able to start their own independent business upon graduation. This is up to the universities programmes to satisfy this need which is in the line of economic development of the country. This study suggest that students are motivated by their personal experience, university background and family while considering financial risk, level of competition as the most important barriers. On the other hand they considered entrepreneurs should be good in accounting and financial analysis while educational background is influential. This implies that university programmes should enable students to maintain accounting records, perform financial analysis, control financial risk and overcome completions. Including marketing, finance, accounting and planning subjects in an entrepreneurial university programme will help students' struggle of being future entrepreneurs upon graduation.

The target respondent of the study was commerce students at one semester only. This limited the scope of the study, future research need to include students from other areas such as agriculture, engineering and science.

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