

PROCEEDING

International Workshop on Agribusiness

*Entrepreneurship and Innovation for Food Security
and Rural Development*

IPB International Convention Center, Bogor - Indonesia,
5 - 6 December 2012



DEPARTMENT OF AGRIBUSINESS
FACULTY OF ECONOMICS AND MANAGEMENT
BOGOR AGRICULTURAL UNIVERSITY

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Bogor Agricultural University – Indonesia
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Editor :

Amzul Rifin
Suharno
Yanti Nuraeni Muflikh
Siti Jahroh

Department of Agribusiness

Faculty of Economics and Management
Bogor Agricultural University

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Editor :

- Amzul Rifin
- Suharno
- Yanti Nuraeni Muflikh
- Siti Jahroh

Design and Layout :

- Hamid Jamaludin M

Administration :

- Yuni Sulistyawati
- Dewi Martiawati Utami

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Department of Agribusiness, FEM-IPB and NICHE Programme

Campus of IPB Dramaga, Jl. Kamper Wing 4 Level 5 Bogor, West Java - Indonesia 16680

Phone/Fax : +62-251-8629654 and 8421759

e-mail : depagribisnis@yahoo.com, dep-agribisnis@ipb.ac.id

Website : <http://agribisnis.fem.ipb.ac.id>

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FOREWORD

With deep satisfaction I was writing this foreword to the Proceedings of International Workshop on Agribusiness that brought forth an interesting topics of **Entrepreneurship and Innovation for Food Security and Rural Development** held in IPB International Convention Center, Bogor Agricultural University, Indonesia, on 5 -6 December 2012. Planned to be held annually in the future, the workshop has been conducted with the support of NICHE – a project at Department of Agribusiness Bogor Agricultural University funded by NUFFIC, the Netherlands.

Diverse papers and discussion represent the thinking and experiences of mixed and various scholarship, students and professors of their particular interest and fields. Of valuable was the presence of prominent scholars from the Netherlands, Germany, Australia, England, and Asian countries, including Indonesians who brought their newest findings out of their research works. Their contributions helped to make the Workshop as outstanding as it has been.

Special thanks are due to the invited speakers Prof. Onno Omta of Wageningen University and Research Netherlands, Prof. Stephan von Cramon Taubadel of Goettingen University Germany, Prof. Peter Warr and Dr. Budy Resosudarmo, of Australian National University, Dr. Luca Cacciolatti of Kent Business School England for their valuable contributions and shared knowledges. We would like to also to thank the editor of the proceeding, Dr. Amzul Rifin, Dr. Suharno, Yanti N. Muflikh. Siti Jahroh PhD, and Hamid Jamaludin for the layout of the proceeding.

It is my hope that this proceeding will contribute to the development of entrepreneurship in agribusiness and rural development in the world and in Indonesia especially.

Dr. Nunung Kusnadi

Head of
Department of Agribusiness
Faculty of Economics and Management
Bogor Agricultural University

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STUDENT ENTREPRENEURIAL BEHAVIOR ANALYSIS IN BOGOR AGRICULTURAL UNIVERSITY

Rachmat Pambudy¹⁾, Burhanuddin²⁾, Wahyu Budi Priatna³⁾, and Nia Rosiana⁴⁾

Department of Agribusiness, Faculty of Economics and Management,
Bogor Agricultural University, Indonesia

e-mail : ¹⁾ pambudy@hotmail.com, ²⁾ burhan@ipb.ac.id, ³⁾ wahdiprit@yahoo.com,

⁴⁾ nia_rosianafwk@yahoo.com

ABSTRACT

Students at the Bogor Agricultural University (IPB) has the potential to become an entrepreneur who looks at the development of students participated in various extracurricular activities the field of entrepreneurship, such as research, education, and community service. Increasing IPB student participation in the entrepreneurship program is an indication that there is a change in the behavior of entrepreneurial students. Therefore, the purpose of this research is to identify behavioral factors IPB student entrepreneurs, to analyze the behavior of IPB entrepreneurship students, and to analyze the relationship between behavioral factors IPB students with the entrepreneurial behavior. The study was conducted at the Campus Dramaga IPB Bogor regency of West Java province in May-October, 2011. The analysis used in this study, namely descriptive statistics analysis, Spearman rank correlation analysis and chi-square, as well as plotter analysis. Results showed that most students have experience entrepreneurship. IPB student entrepreneurial behavior is high, the level of entrepreneurial knowledge is very high, being entrepreneurial attitude and entrepreneurial action is high. IPB student entrepreneurial characters in the form of the ability to face risks, self-discipline, self-motivation, and desire are strong. Factors affecting the behavior and character of entrepreneurial students IPB are the semester, class, grade point average (GPA), allowance, money from parents, training and Student Creativity Program (PKM), and entrepreneurship experience. Based on the plot, character and behavior of entrepreneurial students at the Faculty of Human Ecology and the Faculty of Animal Husbandry are relatively inferior. While IPB students who have superior character and entrepreneurial behavior are a student with a GPA range of 2.00 to 2.50.

Keywords : student entrepreneurial, entrepreneurial character, entrepreneurial behavior

INTRODUCTION

BACKGROUND

The world has entered the fourth civilization as the creative era that puts creativity and innovation as the driving force of economic growth. The need for self-employment is absolute if competing in a world that is changing rapidly and is unpredictable. Entrepreneur (entrepreneurs) is defined as an innovator and driving force of development. In fact, an entrepreneur is the aggressive catalyst for accelerating economic growth. Entrepreneurs are individuals who have a certain control of the means of production and produce more than can be consumed or sold or exchanged in order to earn an income (McClelland, 1961). Entrepreneurs are creators of wealth through innovation, employment and economic growth centers, and distribution of wealth relies on the hard work and risk-taking (Bygrave, 2004).

Davidsson (2003) and Kirzner (1973) argue that entrepreneurship is competitive behaviors that drive the market, not only create a new market, but to create new innovations into the marketplace, as well as the real contribution of self-employment as a determinant of economic growth. Wennekers and Thurik (1999) and Carree and Thurik (2003) stated that basically, entrepreneurs contribute to economic performance by introducing innovation, create change, creating competition and increased competition. Thus, in the long term

existence of entrepreneurship is essential for economic growth (Cipolla, 1981; Lazonick, 1991) and the high productivity will increase efficiency (Weiss, 1976). In fact, the idea that connects entrepreneurs with economic growth makes the evolution of the industry or economic evolution (Jovanovic, 1994 and Audretsch, 1995). From this perspective, entrepreneurship, acting as an agent of change, bringing new ideas to the marketplace and stimulate growth through a process of corporate competition.

Research panel Kreft and Sobel (2005) in all states of the United States showed that the degree of economic freedom (economic freedom), ie, variable low taxes, regulations are not tight, and the protection of private rights have significant impact on entrepreneurial activities that generate economic growth. Formaini (2001) asserts that capitalist countries like the United States even in the face of open and competitive markets, the rule of law, fiscal discipline, and a variety of corporate culture should still put the pace of innovation and increased productivity. Therefore, the American economy will be determined by the courage to take the risk of the entrepreneur and the manager whose imaginative vision. In a competitive global market, entrepreneurial nation on forgetting the contribution of technological change, productivity, resource efficiency, and economic growth, high potential development cost (Drozdiak 2001).

Yang (2007) revealed that after nearly two decades of lost economic landscape of China, entrepreneurship was revived in the late 1970s. Originally intended to solve the problem of unemployment and poverty, entrepreneurial energy turns out to be a serious public policy of the Chinese economy. China realized that it is much more efficient to boost the economy by providing more free space on entrepreneurship rather than strict state control. The result is remarkable, even as China's new economic power in the world. In addition to the rapidly growing economic growth, entrepreneurship has also made China a higher standard of living.

In Indonesia, as in other developing countries, agricultural development still puts farmers as objects of development. Government policy in agricultural development, such as rice self-sufficiency, self-sufficiency meat, fertilizer subsidies, farm credit, and other rural areas tend to deplete natural resources and cause the release of capital to areas that have a higher rate of economic growth. This means, displacing agricultural development of local agricultural systems and agricultural performance will degrade itself. If so agriculture is no longer the engine of national economic growth.

Therefore, the government targets in national development were not reached and can not compete with other countries. Therefore, it is necessary to change the mindset of economic development planners to make the economy driven by agriculture. The key factor is the farmer as a capital resource that has local wisdom and indigenous knowledge that had been abandoned.

One of the variables of human capital of farmers is ignored for entrepreneurship. This is because, entrepreneurship has always connoted with businesses outside agriculture. Entrepreneurs and farmers are considered as distinct individuals poles, so that there can be no term agricultural entrepreneurs or entrepreneurial farmers. Entrepreneurial business school graduates is a product associated with the business community and non-agriculture, industry, innovative products, high-skill and high technology, while the farmer contrary, uneducated, traditional, subsistence, un-skill, and no technology. This has implications for agricultural products that are rarely presented as a product of modern, innovative and contain a value-added. According to Peura *et al.* (2002) neglect entrepreneurship comes from the tradition of the farm itself, the farmer does not consider himself as an entrepreneur.

One of the main providers of human capital is college. Thus, Bogor Agricultural University as the college graduate is a major supplier of agricultural entrepreneurship. These opportunities have been anticipated by the Bogor Agricultural University set out in the

declaration of the five pillars of education as guidelines for education and training of students, namely (1) Academic Professionalism, (2) Social Awareness, (3) Environmental Concern, (4) Entrepreneurship, and (5) Moral and Ethics (Panduan Kemahasiswaan IPB, 2008).

Through these five pillars, Bogor Agricultural University active role in creating a graduate of agriculture that can create jobs (job creators). In addition to reducing the number of unemployed, as well as to improve the quality of farmers, as well as participate resolve labor issues. This is because one of the economic recovery and reconstruction strategy relies on job creation. Therefore, Bogor Agricultural University is already on the right track as most suppliers of agricultural entrepreneurship.

PROBLEM FORMULATION

The number of entrepreneurs in Indonesia is still about 0.24 percent of the total population¹, or about 400 thousand, far below the ideal number of 2.5%. Of the number of entrepreneurs, suggesting that the number of agricultural entrepreneurs is very small, so the challenges for IPB to add at least reach the ideal number. As a comparison, the number of entrepreneurs in developed countries, like the United States, which has reached 12 percent of the total population, about 7 percent in Singapore, China and Japan about 10 per cent, in India about 7 percent and 3 percent in Malaysia.

Potential students of Bogor Agricultural University in entrepreneurship looks at the development of students participated in various extracurricular activities the field of entrepreneurship, such as research, education, and community service. Some forms of these extracurricular activities include Young Entrepreneur Self Program and Entrepreneurship Student Creativity Program (PKMK) held by the government through the Directorate of Research and Community Service (DP2M), Directorate General of Higher Education (General Education). Within six years, the participation of students of Bogor Agricultural University can be seen in Figure 1.

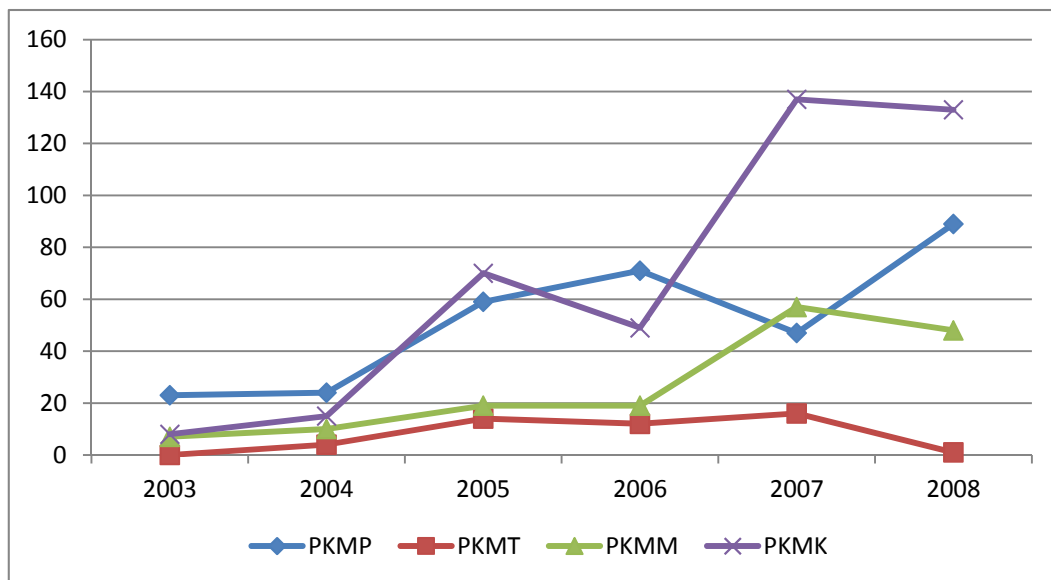


Figure 1. IPB Student Participation in Student Creativity Program (PKM) Year 2003-2009

Source: Directorate of Student Affairs (2009)

¹ <http://www.mediaindonesia.com/read/2010/07/06/153695/4/2/Indonesia-Butuh-407-Juta-Wirausaha>, 22 September 2010.

Increased participation of students from Bogor Agricultural University is an indication that there is a change in the behavior of entrepreneurial students. What caused the change in behavior of entrepreneurial students? Changing in entrepreneurial behavior needs to be studied, because it certainly is not by itself a result of the development time, but it is suspected as factor in putting the Bogor Agricultural University in the pillars of academic entrepreneurship.

If the increase in the number of students IPB contribute positively to the reduction of unemployment and the signals for the growth of agriculture, the study of entrepreneurial behavior are urgently required. Moreover, Bogor Agricultural University every year scored over 2000 new undergraduate agriculture. Question then is how the Bogor Agricultural University created a climate conducive accelerated the growth of entrepreneurial students? For that, it can begin by identifying and analyzing entrepreneurial activities that have been developed at the Bogor Agricultural University. Understanding entrepreneurial activity will facilitate the formulation of policies that encourage the growth of new entrepreneurs, especially in agriculture.

RESEARCH PURPOSES

This study aims to analyze the behavior of entrepreneurial students, Bogor Agricultural University. More detail, this study aims to:

1. Describing the characteristics of students, Bogor Agricultural University.
2. Identifying behavioral factors entrepreneurial students Bogor Agricultural University.
3. Analyzing the behavior of entrepreneurial students, Bogor Agricultural University.
4. Analyzing the relationship between behavioral factors to student entrepreneurial behavior Bogor Agricultural University.

BENEFITS OF RESEARCH

This study will result in a recommendation strategy to the Bogor Agricultural University to receive, manage, and print young entrepreneurs in agriculture. In addition, this study also serves as a guide for the Bogor Agricultural University in improving the quality of human capital in agriculture.

SCOPE OF RESEARCH

The study was conducted at the Bogor Agricultural University, which has committed to graduate agricultural entrepreneurship scholars. Therefore, the analysis of student behavior Bogor Agricultural University is the main focus of this study. Students are referred to undergraduate students, as it is the main and largest output from Bogor Agricultural University.

This study will focus on entrepreneurial activities, Bogor Agricultural University in creating a conducive environment for the development of entrepreneurial behavior IPB students. Entrepreneurial activity in question is the educational, research and community service Bogor Agricultural University contents and purpose of entrepreneurship.

In addition, the Bogor Agricultural University has very diverse student, both from the economic and cultural aspects, as well as from professional family backgrounds are expected to dedicate diversity in entrepreneurial behavior. Therefore, the IPB is not easy to generate standard student of agricultural entrepreneurship. Thus, the characteristics of the Bogor Agricultural University students, both are personal characteristics and socio-economic and cultural characteristics, a variable of this study.

Student entrepreneurial activity Bogor Agricultural University and student characteristics above will be identified as the factors forming the entrepreneurial behavior of students of Bogor Agricultural University. Student entrepreneurial behavior Bogor

Agricultural University is comprised of aspects of knowledge (cognitive), attitudes (affective), and skills (conative). Finally, it will analyze the relationship between the factors forming entrepreneurial behavior to the behavior of entrepreneurial students, Bogor Agricultural University.

METHODS

LOCATION AND TIME

The study was conducted at the campus of Bogor Agricultural University (IPB) Dramaga Bogor regency of West Java Province. Site selection done intentionally (purposive) based on the consideration that the Bogor Agricultural University is the agency's largest Institution for undergraduate agriculture in Indonesia. Implementation of studies conducted during the five months from May to October 2011.

POPULATION AND SAMPLE

The population in this study was students Bogor Agricultural University degree program. Study sample is determined by the quota sampling technique. Samples were taken from nine faculties at Bogor Agricultural University and faculty each 38 samples were divided equally in each department in the faculty.

DATA AND INSTRUMENT

The type of data that will be used in this study is primary data and secondary data. The instrument used in this study is a questionnaire. To ensure that the questionnaire used reliable and valid, then conducted tests of reliability and validity.

DATA PROCESSING METHOD

There are three types of analysis to be used in this study, namely Descriptive Statistics analysis, Spearman Rank Correlation Analysis and Correlation Analysis Chi Square, as well as the analysis of Plotter.

RESULTS AND DISCUSSION

INDIVIDUAL CHARACTERISTICS

Individual characteristics of the respondents in this study was divided into gender, faculty, cumulative grade point (GPA), allowance per month, father's occupation, mother's occupation, tribal areas, participation in entrepreneurship training, never or entrepreneurial activity, and entrepreneurial activities that being run at this time.

Sex

In this study, female respondents are amounted to two hundred and twenty-eight people or reaching 66.4 percent of the total respondents, while men one hundred fourteen people or about 33.3 percent (Table 1). This is because the number of students IPB relatively more female students than male students.

Table 1. Distribution of Respondents by Gender

No	Sex	Amount (People)	Percentage (%)
1	Man	114	33.3
2	Female	228	66.7
Total		342	100

Faculty

Respondents in this study are derived from nine faculties. Total students who were interviewed as many as 342 people. In every faculty there are thirty-eight people who were respondents in this study. This is because to obtain comprehensive information and can answer this research. The distribution of respondents is shown in Table 2.

Table 2. Distribution of Respondents by Faculty

No	Faculty	Amount (People)	Percentage (%)
1	Agriculture (FAPERTA)	38	11:11
2	Veterinary Medicine (FKH)	38	11:11
3	Fisheries and Marine Sciences (FPIK)	38	11:11
4	Livestock (FAPET)	38	11:11
5	Forestry (FAHUTAN)	38	11:11
6	Agricultural Technology (FATETA)	38	11:11
7	Mathematics and Natural Sciences (FMIPA)	38	11:11
8	Economics and Management (FEM)	38	11:11
9	Human Ecology (FEMA)	38	11:11
Total		342	100

Grade Point Average (GPA)

Table 3 showed that most respondents GPA in the range of 2.51 to 3.00 is as much as 37.4 percent. This indicates that most students of IPB have a pretty good GPA. However, the GPA is not a measure of a person having a strong motivation for entrepreneurship. However, a good academic record will support the development of entrepreneurship activities.

Table 3. Distribution of Respondents by GPA

No	GPA	Amount (People)	Percentage (%)
1	<2.01	4	1.20
2	2.01 to 2.50	53	15.5
3	2.51 to 3.00	128	37.4
4	3.01 to 3.50	120	35.1
5	> 3.50	37	10.8
Total		342	100

Allowance per Month

Most respondents had an allowance of Rp. 700.000 - Rp. 1,100,000 per month. Through entrepreneurship activities, students can be expected to increase revenue to meet the needs of college and continue their business activities. Respondents who had a low allowance more motivated to entrepreneurship due to meet their needs. The distribution of respondents by an allowance per month is shown in Table 4.

Table 4. Distribution of Respondents by Monthly Allowance

No	Allowance per Month (Rp)	Amount (People)	Percentage (%)
1	<700.000	124	36.3
2	700,000 - 1,100,000	175	51.2
3	> 1,100,000	43	12.6
Total		342	100

Father's Work

Table 5 suggests that as many as 37.4 percent of the respondents father who worked as a government official (PNS), followed by private employees and others who each had 16.4 percent. IPB student whose father worked as a farmer actually has the smallest percentage in comparison to other jobs. However, their father who became entrepreneurs is 15.5 percent only.

Work as an entrepreneur is a job that has a high degree of freedom in managing the time compared to other professions. Through entrepreneurship activities, in addition to improving the standard of living, it will also create new jobs for others.

Table 5. Distribution of Respondents by Father's Work

No	Dad's Work	Amount (People)	Percentage (%)
1	Government Official (PNS)	128	37.4
2	Private Employees	56	16.4
3	Entrepreneurial	53	15.5
4	Farmer	22	6.4
5	Not Working	27	7.9
6	Other	56	16.4
Total		342	100

Mother's Work

Unlike the work of the father which is dominated by the government official (PNS), a dominant maternal employment is not working. It can be caused by several factors such as education, the desire for home, and permits as well as spousal support. However, for mothers who work as entrepreneurs is as much as 11.1 percent. Respondents can be motivated by the work of their fathers and mothers that want to be just as their parents or even want to have a job that is different from both parents. Distribution of respondents by maternal employment can be seen in Table 6.

Table 6. Distribution of Respondents by Mother's Work

No	Mother's Work	Amount (People)	Percentage (%)
1	Government Official (PNS)	102	29.8
2	Private Employees	16	4.7
3	Entrepreneurial	38	11.1
4	Farmer	7	2.0
5	Not Working	135	39.5
6	Other	44	12.9
Total		342	100

Tribal Region

Respondents in this study are largely derived from the Javanese at 39.8 percent, followed by Sundanese tribe as many as 37.4 percent. Based on observations in the field, there are sixteen tribal areas. This indicates that the IPB students have a high level of diversity that the entrepreneurial activities can not be measured from the tribal region of origin rather than motivation and hard work of students themselves. This can be seen in Table 7.

Table 7. Regional Distribution of Respondents by Ethnicity

No	Tribal Region	Amount (People)	Percentage (%)
1	Minangkabau	6	1.8
2	Sunda	128	37.4
3	Dayak	5	1.5
4	China	1	0.3
5	Bugis	8	2.3
6	Jawa	136	39.8
7	Lampung	4	1.2
8	Madura	1	0.3
9	Jambi	1	0.3
11	Melayu	6	1.8
12	Batak	27	7.9
13	Betawi	14	4.1
14	Gorontalo	1	0.3
15	Palembang	3	0.9
16	Aceh	1	0.3
Total		342	100

Participation in Entrepreneurship Training

Distribution of respondents by participation in entrepreneurship can be seen in Table 8. The analysis showed that as many as 72.8 percent of students did not attend entrepreneurial training whether conducted on-campus or off-campus IPB. This indicates that the low student interest in participating in entrepreneurship activities. As a fraction as much as 27.2 percent of the students have been trained in entrepreneurship conducted on or off campus IPB. Therefore, IPB should seek to increase student motivation in entrepreneurship activities.

Table 8. Distribution of Respondents by Participation in Entrepreneurship Training

No	Entrepreneurship Training	Amount (People)	Percentage (%)
1	Following Entrepreneurship Training	93	27.2
2	No	249	72.8
Total		342	100

Participation in Student Creativity Program (PKM)/Similar

The low participation of students in entrepreneurship training was followed by a low student interest in participating in the Student Creativity Program (PKM) is equal to 32.2 percent. The cause is a lack of student motivation, lack of information, a solid coursework, and students are relatively not interested in it. Therefore, lecturers should direct students to follow the activities of PKM in IPB to improve the soft skills of the student in particular entrepreneurial activity.

Table 9. Distribution of Respondents by Participation in Student Creativity Program (PKM)/Similar

No	Entrepreneurship Training	Amount (People)	Percentage (%)
1	Yes, Following PKM	110	32.2
2	Not following PKM	232	67.8
Total		342	100

Entrepreneurship Experience

Despite the low student interest in entrepreneurship training and PKM, but most students have less experience in entrepreneurship activities. The percentage reached 69.6 percent. This can be seen in Table 10. Activities undertaken as selling knick-knacks, pulses, business printing, business breeding, food and beverage, private lessons, rental comics, drinking water business, photocopying, online shop, printing services, enlargement of ornamental fish, garment, cosmetics, red tilapia aquaculture, decorating services, clothing, miniature, food, internet, *batik*, and others. Entrepreneurial motivation can be improved so that students are able to create jobs for themselves and others.

Table 10. Distribution of Respondents by Experience Entrepreneurship

No	Entrepreneurship Experience	Amount (People)	Percentage (%)
1	Ever had	238	69.6
2	Never had	104	30.4
Total		342	100

The Entrepreneurial Activity Ongoing

The percentage of students who are performing activities of its business was 22.2 percent. This can be seen in Table 11. Efforts being carried out in the form of cosmetics, oyster mushroom cultivation, education services, raising rabbits, pulses, clothes, food, drink, fish ponds, liquid fertilizer, cattle fish, creative shop, souvenir distributors, consulting services, online shop, and more. While most students are 77.8 percent were not already engaged in entrepreneurship because it is not interested, busy class schedules, and more.

Table 11. Distribution of Respondents by Entrepreneurial Activity Ongoing

No	Entrepreneurship Training	Amount (People)	Percentage (%)
1	Yes, it is running an entrepreneurial	76	22.2
2	Not engaged in entrepreneurship	266	77.8
Total		342	100

ENTREPRENEURIAL BEHAVIOR

Based on Table 12 known that the average count of respondents entrepreneurial behavior score is 217.39 which are at the high category. Components of entrepreneurial behavior are categorized as very high knowledge of entrepreneurship. This means that the knowledge of students about entrepreneurship is higher than the attitudes and actions in entrepreneurship. Therefore, the guidance in the attitudes and actions of entrepreneur needs to be done so that students are able to apply entrepreneurial activity in real life.

Table 12. Mean Score of Entrepreneurial Behavior IPB students

No	Items	Mean Score	Category
1	Entrepreneurial Knowledge	89.39	Very High
2	Entrepreneurial Attitude	62.94	Moderate
3	Entrepreneurial actions	65.07	High
4	Entrepreneurial Behavior	217.39	High

Knowledge entrepreneurship is one component of entrepreneurial behavior. Highly entrepreneurial knowledge created a person to be successful in entrepreneurship. Knowledge is the beginning of the students in entrepreneurship activities. Entrepreneurial knowledge can be obtained through entrepreneurship lectures, seminars/training for entrepreneurship, as well as literary studies can be carried out independently and in groups.

In Table 12 showed that most respondents have a very high knowledge on entrepreneurship. This is indicated by the number of respondents were 282 people, or about 82.5 percent. Very high entrepreneurial knowledge is obtained through the student entrepreneurship courses, seminars, and training for entrepreneurship.

Other behavioral components are the components of attitude. Entrepreneurial attitude reflects the affective component of a person in response to a business opportunity that involves a commitment to doing business. Despite high knowledge IPB students to entrepreneurial activity, but the attitude of students in response to business opportunities is the moderate category, amounting to 87.7 percent. High category of student attitude in response to entrepreneurial opportunities is 11.7 percent.

Component of entrepreneurial behavior that is important is the element of action. Reflect the actions undertaken by an entrepreneur in achieving its goals in entrepreneurship. Most IPB student entrepreneurial action is a high category, reaching 46.8 percent and 23.7 percent is very high. This means that 70.5 percent of students are able to undertake entrepreneurial activities that can encourage the growth of their business.

Based on this, the majority of respondents had a high entrepreneurial behavior that is equal to 85.4 percent. Only 8.2 percent have a very high entrepreneurial behavior and 6.4 percent are in the moderate category. It can be shown in Table 13.

Table 13. Distribution of Respondents by Elements of Entrepreneurial Behavior

Category	Elements of Entrepreneurial Behavior						Entrepreneurial Behavior	
	Knowledge		Attitude		Action		Behavior	
	n	%	n	%	n	%	n	%
Very Low	0	0.0	0	0	2	0.6	0	0.0
Low	0	0.0	2	0.6	0	0.0	0	0.0
Moderate	1	0.3	300	87.7	99	28.9	22	6.4
High	59	17.3	40	11.7	160	46.8	292	85.4
Very High	282	82.5	0	0	81	23.7	28	8.2
Total	342	100	342	100	342	100	342	100

ENTREPRENEURIAL CHARACTER

Entrepreneurial character consists of two main elements, namely the personality and confidence. Personality component made up of freedom, self-discipline, drive and desire, and the courage to take risks. Based on the analysis, the personality scores of students in shaping the entrepreneurial character is at 70.3. Components that have the highest value on the element of personality is the ability of students in the take risks. The other element of entrepreneurial character is self-confidence, but the score is smaller than the student's personality. The highest score is worth 100 indicating perfect entrepreneurial character, while the lowest value that is worth 0. This can be seen in Table 14.

Table 14. Score Entrepreneurial Character

No	Elements of Character	Score (0-100)
1	Personality	70.3
	a. Freedom	68.4
	b. Self-discipline	71.7
	c. Encouragement and Desire	69.1
	d. The ability to take risks	71.9
2	Confidence	63.6
	Mean Entrepreneurial Character	63.6

THE RELATIONSHIP BETWEEN RESPONDENT CHARACTERISTICS, ENTREPRENEURIAL BEHAVIOR AND ENTREPRENEURIAL CHARACTER

Table 15 showed that semester of students IPB correlated with student behavior and character in the face of risks to the $\alpha=0.2$ (significant 80%). There is a higher tendency of the semester student, the higher the entrepreneurial action, have the freedom and the courage to take the risks of diminishing returns, but all with a very weak level of influence. This means that semester of students have the potential to form into an entrepreneur. However, the higher the semester students tend courage to take the risks of diminishing returns. This is presumably because students are more focused on doing research, completing the script. This was reaffirmed by year in college was positively correlated with the courage to take risks. In other words, students at the beginning of the semester bolder risks, although the entrepreneurial actions is low and entrepreneurial character has not been established.

Table 15 also showed that the GPA is only correlated negatively with the courage to take risks. Students with a high GPA tend to be less daring entrepreneurship risk, because it is not overly focus on the course material being studied, making it less sensitive to the business opportunities and entrepreneurial character development. However, students with a large pocket money tend to have a higher entrepreneurial action as well. It is suspected the allocation of allowances in entrepreneurial activities. But, if the parents give more money, then the student wishes to be entrepreneurs tend to weaken. This means that the excess of financial support from parents spoiled and do not make students more independent.

Other characteristics, such as entrepreneurship training, program student creativity, experience entrepreneurship and running entrepreneurship activities, positively correlated with almost all entrepreneurial behavior and entrepreneurial character. This indicates that the behavior and character of entrepreneurial students shaped more by extra-curricular activities than intra-curricular activities.

Based on Table 16, there is a correlation between the behavior of entrepreneurs and entrepreneurial character. Entrepreneurial knowledge was positively correlated only with the courage to take risks, but the entrepreneurial attitude and entrepreneurial actions

positively correlated with all the entrepreneurial character, except freedom. This shows that to establish entrepreneurial students through the teaching process is not enough, but it should learning process. Learning process more change attitudes and actions of students who ultimately form the entrepreneurial character, while the teaching process change students' knowledge only. Thus, the inclusion of students in the learning process is further enhanced by the practical based learning methods.

Table 15. Relationship between the Respondent Characteristics, Entrepreneurial Behavior, and Entrepreneurial Character

Characteristics	Behavior				Character					
	Knowledge	Attitude	Action	Total	Freedom	Self-discipline	Encouragement Desire	Take Risks	Confidence	Total
Semester										
Corr. Coefficient	-.042	.013	.081 *	.048	.074 *	.008	-.010	-.127 **	-.007	.000
Sig. (2-tailed)	.437	.818	.133	.376	.170	.879	.848	.018	.894	.992
Year college admission										
Corr. Coefficient	.034	-.008	-.081 *	-.050	-.072 *	-.010	.007	.125 **	.012	.003
Sig. (2-tailed)	.536	.886	.137	.360	.182	.856	.898	.021	.831	.962
GPA										
Corr. Coefficient	.023	.000	-.033	-.017	.004	-.047	-.054	-.137 **	-.015	-.065
Sig. (2-tailed)	.670	.989	.544	.752	.936	.382	.321	.011	.784	.232
Allowance										
Corr. Coefficient	-.014	.021	.160 ***	.123 **	.019	.009	-.014	-.026	.032	-.006
Sig. (2-tailed)	.800	.697	.003	.023	.719	.867	.797	.628	.560	.918
Money from Parents										
Corr. Coefficient	-.042	-.051	.047	-.001	.000	-.067	-.106 **	-.020	-.026	-.077 *
Sig. (2-tailed)	.472	.389	.420	.983	.994	.255	.070	.733	.655	.187
Following Training										
Corr. Coefficient	.118 **	.083	.358 ***	.365 ***	.069	.173 ***	.114 **	.103	.156 ***	.171 ***
Sig. (2-tailed)	.029	.128	.000	.000	.200	.001	.034	.058	.004	.002
Student Creativity Program										
Corr. Coefficient	.111 **	.129 **	.218 ***	.246 ***	.104 **	.149 ***	.114 **	.032	.111 **	.131 **
Sig. (2-tailed)	.040	.017	.000	.000	.055	.006	.035	.556	.039	.015
Entrepreneurial experience										
Corr. Coefficient	.054	.050	.239 ***	.218 ***	.111 **	.073 *	.071 *	.075 *	.083 *	.095 **
Sig. (2-tailed)	.322	.355	.000	.000	.040	.177	.189	.167	.125	.080
Entrepreneurial activity Ongoing										
Corr. Coefficient	.101	.029	.233 ***	.249 ***	.126 **	.099 **	.090 **	.072 *	.086 *	.122 **
Sig. (2-tailed)	.063	.589	.000	.000	.020	.069	.097	.185	.112	.024

Note: * significant at $\alpha_{0.2}$, ** significant at $\alpha_{0.1}$, *** significant at $\alpha_{0.01}$

Table 16. The Relationship between Entrepreneurial Behavior and Entrepreneurial Character

Variables	Freedom	Self-discipline	Encouragement Desire	Take Risks	Confidence	Character
Knowledge	-.020	.017	.013	.139 *	.001	.038
Attitude	.350	.482 **	.388 **	.380 **	.400 **	.492 **
Action	.136	.314 **	.209 **	.287 **	.179 **	.297 **
Behavior	.168	.367 **	.266 **	.362 **	.235 **	.364 **

Note: * significant at $\alpha_{0.05}$, ** significant at $\alpha_{0.01}$.

PLOTTING ENTREPRENEURIAL BEHAVIOR AND ENTREPRENEURIAL CHARACTER BASED FACULTY

Based on Overall Student Faculty

Based on Figure 2 shows that the students in the Faculty of Economics and Management (FEM) have superior entrepreneurial behavior, whereas the inferior entrepreneurial character. Faculty of Human Ecology (FEMA) and the Faculty of Animal Husbandry (FAPET), both entrepreneurial behavior and entrepreneurial character inferior, while other faculties are both superior. This indicates that although the FEM as a mandate holder entrepreneurship development course, still need to evaluate the methods of teaching and learning entrepreneurship course, because it has not been able to form the character of entrepreneurial students.

However, most faculties have demonstrated superior entrepreneurial performance, except FAPET and FEMA that shows otherwise. Therefore, both faculties should be given special attention in the development of intra-and extra-curricular programs of entrepreneurship. For example, by encouraging students in both faculties are taking entrepreneurship courses and encourage students participated in various programs student creativity.

Although students FEMA have inferior entrepreneurial behavior, but in fact superior entrepreneurial attitude (Figure 3). Some students in the faculties (FAPERTA, FKH, FPIK, FAHUTAN, FATETA, FMIPA) is superior in entrepreneurial behavior, it was found that entrepreneurial knowledge inferior (FKH, FPIK, FATETA), entrepreneurial attitude inferior (FAPERTA, FKH, FMIPA), and inferior entrepreneurial action (FAHUTAN, FATETA). This shows that entrepreneurial behavior of students in each faculty varies, so the focus of entrepreneurship development program will be also specific faculty.

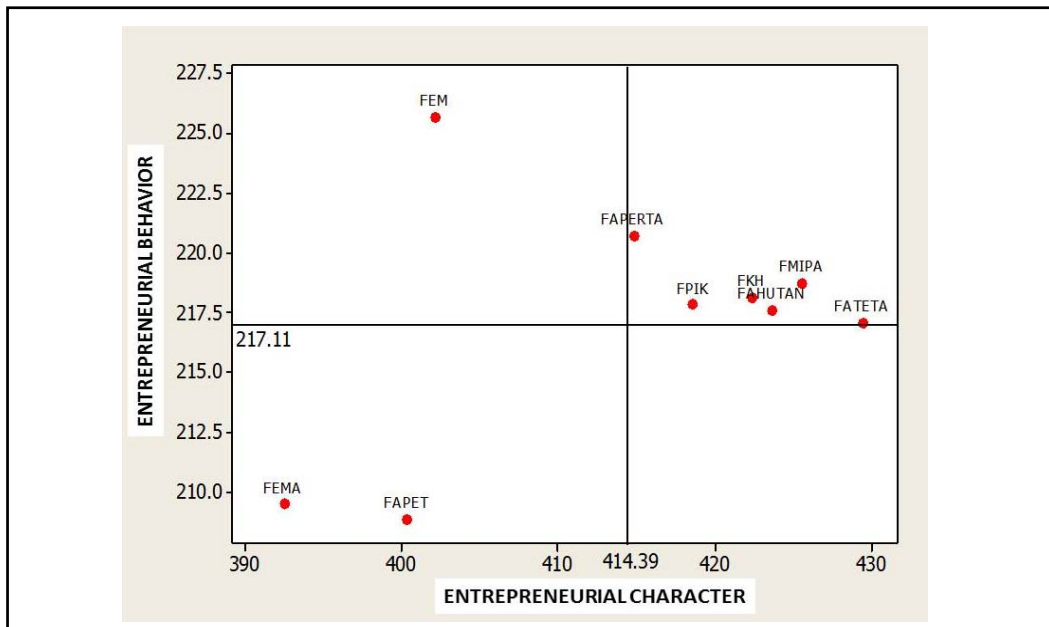


Figure 2. Entrepreneurial Behavior and Entrepreneurial Character Plotting

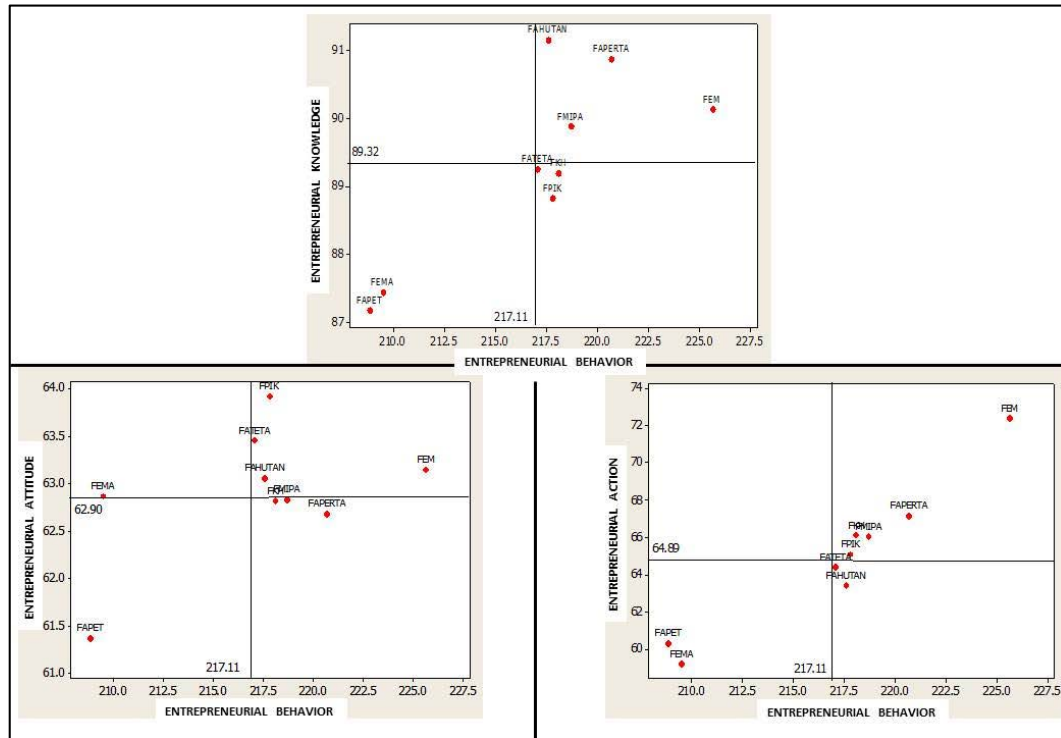


Figure 3. Entrepreneurial Behavior, Entrepreneurial Knowledge, Entrepreneurial Attitudes, and Entrepreneurial Action Plotting

Figure 4 describes five characters entrepreneurial students who studied as follows: student FEM has the most inferior character of freedom, while FEMA is the character of encouragement and desire; entrepreneurial character of the most inferior of the student FAPET is self-discipline, the ability to take risks, and confidence. Almost all of the entrepreneurial character is superior in FATETA students, but the characters are superior encouragement and desire is students FMIPA. Thus FATETA student can become a benchmark in the development of student entrepreneurship program at IPB. This is understandable, since many FATETA students have achievements in entrepreneurship competitions, and are also encouraged to take a course in entrepreneurship to develop a personality. On the other hand, the character of entrepreneurial students FAPET, FEM, and FEMA, nearly all inferior which indicates the need for special programs to strengthen the entrepreneurial character.

Figure 4 also explains that the desire entrepreneurship of FATETA students is higher than other faculty, but the ability to take risk is relatively lower than FMIPA students. This is expected, because the student FMIPA has a good capability to calculate the opportunities and risks that will be faced.

3. IPB should more often send students to take entrepreneurship development programs at national and international level, especially students from the Faculty of the behavior and character of entrepreneurial inferior with adequate financial support.

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