

Global University Entrepreneurial Spirit Students' Survey
(GUESSS 2011)

Country Report, Japan

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Summary

We participated in the GLOBAL UNIVERSITY ENTREPRENEURIAL SPIRIT STUDENTS' SURVEY (2011). The Center for Regional Research at HOSEI University served as the representative office in Japan. This survey gathered 93,000 responses from 489 universities all over the world. Although our sample was small relative to other nations (561 responses), we were able to confirm that current undergraduate students still shy away from entrepreneurial activities as have been pointed out in past research. We also verified that entrepreneurial intention correlates positively with universities' entrepreneurship education, personal factors, surrounding peoples' support, and family business.

1. Introduction

1.1 Background of the study

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) is a research project designed to investigate the entrepreneurial intentions of students. GUESSS has offices at the Swiss Research Institute for Small Business and Entrepreneurship and the Center for Family Business at the University of St. Gallen. The survey has been conducted in 2003, 2004, 2006, 2008 and, most recently, in 2011. Ernst & Young, a leading business accounting firm, joined GUESSS as an international project partner in 2011. A sample of 93,000 students was collected from 489 universities in 26 countries, mainly in Europe. (The United States does not participate in the survey.) For a full analysis report covering the total sample, see the International Report GUESSS 2011.

1.2 Research Goal and Framework

The theoretical foundation of GUESSS is the Theory of Planned Behavior (Ajzen, 2002; Fishbein & Ajzen, 1975). The goal of the survey is to verify what factors affect the entrepreneurial intentions of students. In particular, the survey focuses on whether university education and the university environment fuel entrepreneurial intentions. Other factors that fuel these intentions are considered to be personality traits, motives, and family background.

1.3 Project Coordination

During a period of almost three months, from March to May in 2011, an international online survey was conducted. In Japan, the survey was held from April, when the new school year begins, until late May. The Center for Regional Research at Hosei University was the contact window for Japan and responses were collected from Meisei University, Senshu University, and Kyushu University.

The contact person for each university was as follows:

Prof. Noriko Taji, Faculty of Business Administration and Business, School of Innovation Management, Hosei University

Prof. Tomoyo Kazumi, School of Business Administration, Senshu University

Associate Prof. Emiko Tsuyuki, Department of Business Administration, Meisei University (currently at Chuo University)

Associate Prof. Shingo Igarashi, Robert T. Huang Entrepreneurship Center, Kyushu University

2. Sample

2.1 Gender

Table 1 Gender

N=561

	Number	Ratio%
Male	391	69.7%
Female	170	30.3%

The survey was distributed to about 4,200 students and 561 responses were received, making the response rate 13.4%. The breakdown by gender was about 70% male and 30% female. The students were from Meisei University, Senshu University and Hosei University (private universities in the metropolitan area), and Kyushu University (a public university in a government-decreed city).

2.2 Level of Studies and Field of Study

Table 2 Level of Studies

N=561

	Number	%
Undergraduate (Bachelor)	411	91.1%
Graduate (Master)	25	4.3%
PhD / doctorate	1	0.2%
Post doc	2	0.4%
Exchange student	23	4.1%

Of the respondents, 91.1% were undergraduate students majoring in social sciences. Of these, 92% were studying business administration or commerce. Engineering accounted for 6.4% and other fields of study totaled 1.6%.

3. Sample Summary

3.1 University Climate Fostering Entrepreneurship

Students were asked to what extent they agreed or disagreed (using a seven-point scale) with a range of statements regarding university offerings and the supporting environment provided for entrepreneurship. Excluding the middle responses that stated “neither agree nor disagree,” we combined the “strongly agree” and “agree” answers into “agree” and the “strongly disagree” and “disagree” answers into “disagree.”

Table 3 Evaluation of University Climate Fostering Entrepreneurship

N=561

	Agree and Strongly agree	%	Disagree and Strongly disagree	%	Means	Standard Deviations
...increased my understanding of the attitudes, values and motivations of entrepreneurs.	208	37.7%	137	24.9%	4.20	1.44
...increased my understanding of the actions someone has to take in order to start a business.	228	41.3%	131	23.7%	4.26	1.41
...enhanced my practical management skills in order to start a business.	202	36.8%	165	30.1%	4.07	1.47
...enhanced my ability to develop networks.	182	33.0%	173	31.4%	4.05	1.42
...enhanced my ability to identify an opportunity.	209	37.9%	157	28.4%	4.13	1.42
There is a favorable climate and premises for becoming an entrepreneur at my University.	143	26.0%	216	39.2%	3.73	1.54
At my University I found many entrepreneurial-minded classmates.	126	22.8%	251	45.5%	3.53	1.51
Thinking about any classes or training in entrepreneurship that you have had, were they mainly imparting knowledge (1) or could you work on own entrepreneurial ideas (7)?	129	23.5%	233	42.4%	3.50	1.69

While students responded that universities taught the necessary attitude and practical management skills to become an entrepreneur, they felt that the atmosphere did not favor entrepreneurship and that there were few fledgling entrepreneurs present. As can be seen in the last statement, the students assessed that university programs were mainly for acquiring knowledge and they were not able to actually work on specific ideas for starting a new venture.

3.2 Career Choice

The results show that immediately after the completion of their studies, 70% of the students felt that they would prefer organizational employment. Just over 6% responded that they would like to start their own venture, while only 5% responded that they would like to take over a family firm or other existing business. However, looking at the responses for five years after the completion of their studies, the numbers changed greatly with over 30% preferring organizational employment, more than 30% wanting to start their own ventures, and 13% wanting to take over a family firm or other existing business. This indicates that even students who wished to be employed right after the completion of their studies still intended to start their own venture or take over an existing business in five years.

Table 4 Career Choice

N=561

	Right after studies	%	5 years after studies	%
<i>As employee:</i>	392	70.0%	181	32.3%
...in a small or medium-sized firm (1-249 employees)	181	32.3%	37	6.6%
...in a large firm (>250 employees)	174	31.0%	113	20.1%
...at a University/in Academia	7	1.2%	11	2.0%
...in public service	30	5.3%	20	3.6%
<i>As a founder</i>	36	6.4%	172	30.7%
...continuance in the firm I have already founded	12	2.1%	27	4.8%
...foundation of an own firm	12	2.1%	112	20.0%
...start as a freelancer	7	1.2%	20	3.6%
...foundation of a franchise company	5	0.9%	13	2.3%
<i>As successor</i>	16	2.8%	48	8.6%
...continuance of my parents'/relatives' firm (family firm)	12	2.1%	33	5.9%
...take over a firm not controlled by my family	4	0.7%	15	2.7%
...no professional career (e.g., travelling, family, etc.)	12	2.1%	25	4.5%
...do not know (yet)	94	16.8%	118	21.0%
...others	11	2.0%	17	3.0%
Total	561	100.0%	561	100.0%

3.3 Motives for Future Work and Career Path

When asked how important different motives are for their future work and career path, the students attributed much importance to the following factors (in descending order of importance): “personal growth,” “realize their dream,” “financial security,” “achieve something,” “greater flexibility for personal life” and “higher income”. These were followed by “exploit a specific business opportunity that they had recognized” and “develop an idea for a product.” These last two motives could be considered to link directly to entrepreneurship.

Table 5 Motives for Future Work and Career Path

N=550

	“Very important” and “Important” combined	“Very unimportant” and “unimportant” combined	Means	Standard Deviationss
Grow and learn as a person	84.9%	3.6%	5.86	1.25
Realize my own dream	79.5%	7.0%	5.61	1.39
Financial security	77.9%	7.8%	5.56	1.38
Challenge myself	77.0%	6.7%	5.52	1.34
Achieve something, get recognition	76.4%	7.6%	5.41	1.40
Get greater flexibility for personal life	75.5%	8.5%	5.47	1.39
Earn a larger personal income	73.8%	7.9%	5.37	1.35
Exploit a specific business opportunity that I recognized	65.3%	11.6%	5.06	1.47
Develop an idea for a product	59.6%	18.2%	4.81	1.60
Follow a social mission	58.4%	16.1%	4.90	1.55
Gain a higher position for myself	51.7%	20.7%	4.61	1.55
Follow an environmental mission	50.2%	20.9%	4.57	1.57
Follow example of a person I admire	43.3%	31.2%	4.11	1.67
Be my own boss	41.0%	28.6%	4.28	1.60
Be innovative, at the forefront of technology	39.1%	28.8%	4.15	1.59
Continue a family tradition	22.5%	52.4%	3.24	1.77
Build business children can inherit	20.0%	56.3%	3.19	1.70

3.4 Entrepreneurial Intentions

When asked if and to what extent students had already been thinking about founding their own company, 28.7% said they “never” thought about it, 38.1% said they only thought about it “sketchily,” 21.0% thought about it “repeatedly,” and 8.4% thought about it in “relatively concrete” terms, showing that more than 70% of the respondents were interested, to a varying degree, in starting their own ventures. However, few were making actual preparations to do so. Students who responded that they had “made an explicit decision to found a company,” “had a concrete time plan when to do the different steps for founding,” or “have already started with the realization” accounted for less than 4% of the total.

Table 6 Entrepreneurial Intentions

	N=561	
Never	161	28.7%
Sketchily	214	38.1%
Repeatedly	118	21.0%
Relatively concrete	47	8.4%
I have made an explicit decision to found a company	9	1.6%
I have a concrete time plan when to do the different steps for founding	6	1.1%
I have already started with the realization	6	1.1%
I am already self-employed in my own founded firm	0	0.0%
I have already founded more than one company, and am active in at least one of them	0	0.0%

3.5 Attitude toward Entrepreneurship

The survey asked whether entrepreneurship is something that appeals to the students and asked them to rate a series of statements on a seven-point scale. Excluding the “neither agree nor disagree” responses, we collated and compared “positive” and “negative” attitudes. While 51.7% of the respondents answered that a career as an entrepreneur was attractive to them, 26.0% responded negatively. Students who felt that being an entrepreneur would entail great satisfaction accounted for 42.6% of the total, while 28.7% responded negatively. Similarly, more students responded positively than negatively to the question of whether they would become entrepreneurs if they had the opportunity and the resources, and whether they thought that being an entrepreneur implied more advantages than disadvantages.

Table 7 Attitude toward Entrepreneurship

N=555

	Positive (Strongly agree and agree)	%	Negative (Strongly disagree and disagree)	%	Means	Standard Deviations
Being an entrepreneur implies more advantages than disadvantages to me.	217	38.7%	151	26.9%	4.18	1.51
A career as entrepreneur is attractive for me.	290	51.7%	146	26.0%	4.43	1.70
If I had the opportunity and resources, I would become an entrepreneur.	232	41.4%	182	32.4%	4.17	1.71
Being an entrepreneur would entail great satisfactions for me.	239	42.6%	161	28.7%	4.30	1.68

3.6 Support by Surrounding People

The survey also asked how surrounding people (parents/family members/friends/fellow students/other important people) would react if they pursued a career as an entrepreneur. The question was answered using a seven-point scale with a higher number indicating a more positive reaction. Overall, the replies indicated a more positive reaction rather than a negative one.

Table 8 Support by Surrounding People

N=555

	Positive (very positive and positive)	%	Negative (very negative and negative)	%	Means	Standard Deviations
Parents / other family members	276	49.2%	131	23.4%	4.52	1.61
Friends / fellow students	367	65.4%	66	11.8%	4.97	1.38
People important to me in general	353	62.9%	56	10.0%	5.02	1.38

3.7 Entrepreneurial Steps

This question was only posed to respondents who had given positive consideration to entrepreneurship in response to the earlier question asking if and to what extent they had already been thinking about founding their own company. The sample of those who said that they thought about it “repeatedly” or in “relatively concrete” terms, had already “made an explicit decision to found a company,” “had a concrete time plan,” or “had already started with the realization.” consisted of 50% of the total respondents.

When asked what steps the students had already taken in the process of founding their own companies, 28.2% said that they had “nothing done so far,” 27.9% had “thought of first business ideas,” 12.5% had “looked for potential partners,” and 10.7% had “formulated a business plan.” Activities associated with the later stages of founding a business, such as “worked on product development,” “discussed with potential customers,” or “purchased equipment,” accounted for 11.4% of all replies.

Table 9 Entrepreneurial Steps

N=280 (multiple answers possible)

Nothing done so far	79	28.2%
Thought of first business ideas	78	27.9%
Looked for potential partners (e.g., fellow students)	35	12.5%
Formulated business plan	30	10.7%
Identified market opportunity	26	9.3%
Worked on product development	13	4.6%
Discussed with potential customers	9	3.2%
Purchased equipment	4	1.4%
Decided on date of foundation	4	1.4%
Asked financial institutions for funding	2	0.7%

3.8 Industry

A sample comprising 62% of the total number of respondents answered in which industry they wanted to be active. In descending order of preference, students stated that they were interested in starting a venture in the wholesale and retail trade; advertising, marketing and design; the hotel and restaurant industry; education; finance, insurance and real estate; and consulting (law, tax, management). It is assumed that the reason there were so few responses for entrepreneurship in the IT industry, in which social media-related entrepreneurship has been booming, is that there were few students taking information-related studies in the sample.

Table 10 Industry for Entrepreneurship

N=174

Industry	Number	%
Wholesale and retail trade	34	20%
Advertising / Marketing / Design	28	16%
Others	20	11%
Hotel and restaurant industry	17	10%
Education	14	8%
Finance, insurance, and real estate	11	6%
Consulting (law, tax, management)	11	6%
Manufacturing	9	5%
Communications / Information technology (IT)	9	5%
Health Services	8	5%
Agriculture / forestry / fishing	4	2%
Transportation	3	2%
Construction	2	1%
Architecture and engineering	2	1%
Personnel management / Human resources (HR)	2	1%

3.9 Sources of Business Ideas

Hobbies or recreational pastimes, university studies, and ideas from “self or fellow students” all ranked highly as sources for business ideas, suggesting origins in university life itself.

Table 11 Sources of Business Ideas

Multiple answers possible N=262

Current or former work activity	36	14%
Hobby or recreational pastime	77	29%
University studies	54	21%
Academic, scientific or applied research	18	7%
Idea from self or fellow students	44	17%
Friends outside University	8	3%
Family members	25	10%

3.10 Partner

A sample of over 70% of the respondents answered this question. Of these, fewer than 50% replied that they had no intention of starting a venture with a partner. This is an interesting figure that is in line with the current status of entrepreneurship in Japan. Whereas, in Western countries, ventures are often founded with a partner or partners, most entrepreneurs in Japan found their ventures alone.

Table 12 Partner

N=186

No partner	1 partner	2 partners	3 partners	4 or more
47.9%	18.8%	13.4%	9.7%	10.2%

3.11 Recruiting Partners

In response to the previous question, 97 students replied that they would start a venture with a partner. When asked from where they would recruit these partners, most students indicated that the partners would probably come from a circle of friends outside their university. Since the responses were taken from universities in major cities, namely Tokyo and Fukuoka, this result presumably reflects the fact that students have many acquaintances in neighboring universities.

Table 13 Recruiting Partners

Multiple answers possible N=97

University	45	46.4%
Circle of friends outside University	70	72.2%
Relatives / family circle (parents, siblings)	17	17.5%
Spouse	5	5.2%

3.12 Barriers to Founding a Company

The majority of students named financial capital, having the relevant technical know-how, bearing financial risk, and having the necessary skills and capabilities as barriers to founding a company.

Table 14 Barriers to Founding a Company

N=181

	Founding Barrier	%	Means	Standard Deviations
Access to financial capital (debt and equity capital)	115	63.5%	5.09	1.48
Having relevant technical know-how	109	60.2%	4.86	1.47
Bearing financial risk	106	58.6%	4.87	1.58
Having the necessary skills and capabilities	99	54.7%	4.72	1.49
State laws (rules and regulations)	84	46.4%	4.41	1.53
General economic environment	82	45.3%	4.46	1.49
Lack of contact to clients / customers	79	43.6%	4.30	1.58
Lack of the right business idea	77	42.5%	4.17	1.48
High workload of an entrepreneur	67	37.0%	4.08	1.54

3.13 Sources of Financing

The figures shown in the table below represent averages (totaling 100%) for different sources of financial capital. The respondent's own funds scored the highest at 45.1%, followed by bank loans at 15.6% and family or friends at 14.7%. Financing from outside investors accounted for only 10.8%. (There was no sample for entrepreneurs who had already founded their own businesses.)

Table 15 Sources of Financing

	% (approximate)
Own funds	45.1
Funds from family or friends (debt and equity capital)	14.7
Prize money from business competitions and idea contests	6.2
Grants from foundations or government programs	7.5
Capital from outside investors (such as business angels)	10.8
Bank loans	15.6
Undecided	0.1

4. Results—Analysis of Factors that Heighten Entrepreneurial Intentions

4.1 Entrepreneurial Education, Personal Characteristics, etc.

Entrepreneurial education, personal characteristics, and social support were all positively associated with entrepreneurial intentions. Looking at Figure 1, we can see that entrepreneurial education at universities is correlated with more positive attitude toward entrepreneurship and with greater self-efficacy in starting a business. We have also confirmed that entrepreneurial education correlates positively with entrepreneurial intentions.

As for personal characteristics, we confirmed that an internal locus of control (the degree to which one feels in control of one's own action) and entrepreneurial efficacy positively predict entrepreneurial intentions. This was also confirmed that social support also predict entrepreneurial intention. For the motives shown in Figure 1, we subsequently analyzed how each of the motivational factors contributes to entrepreneurial intentions.

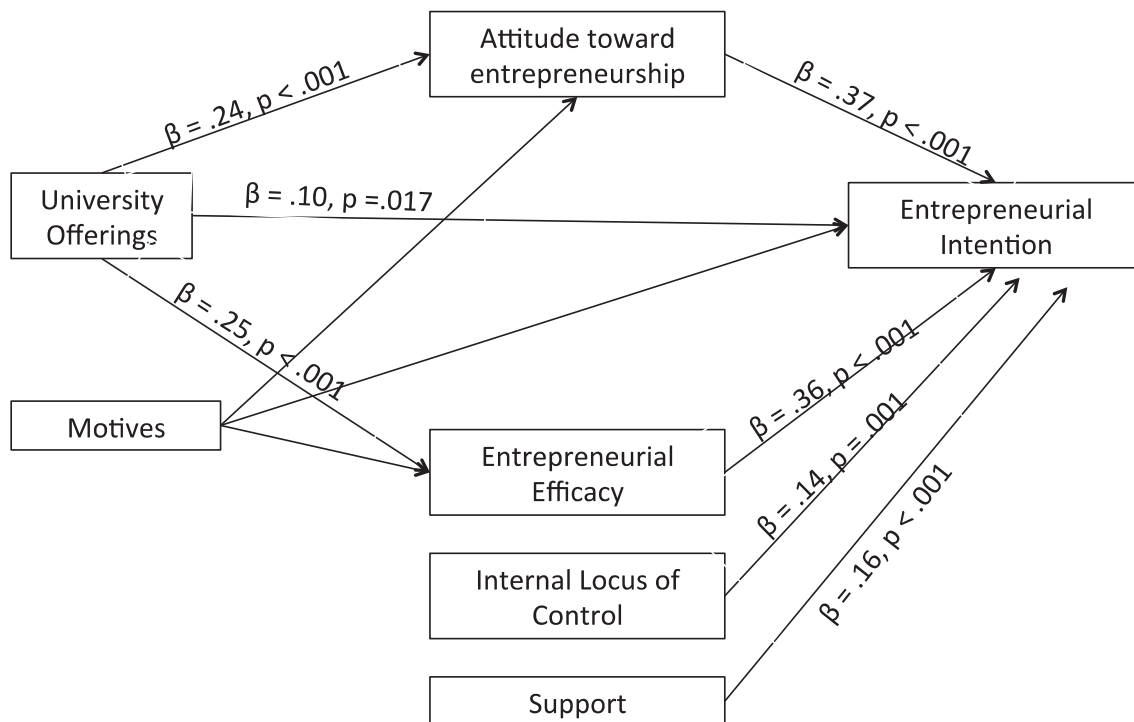


Figure 1 Paths Linking Entrepreneurial Education and Personal Characteristics to Entrepreneurial Intention

The mean for the first five items in Table 3 was used to quantify the extent of university offerings, including entrepreneurial education and networking and coaching programs. The reliability coefficient of these five items was .90. The mean for the four items listed in Table 7 was used to quantify attitude toward entrepreneurship ($\alpha = .86$). Entrepreneurial efficacy was measured using the 11-point scale of Chen, Greene, & Crick (1998); $\alpha = .89$. We used three items from Levenson's (1973) scale to quantify internal locus of control ($\alpha = .67$). To quantify social support, the mean for the three values listed in Table 8 was used ($\alpha = .83$).

To assess entrepreneurial intentions, the options listed in Table 6 (“if and to what extent students had already been thinking about founding their own company”) were used, with the answers quantified as 1 for “never,” 3 for “sketchily,” “repeatedly,” or “relatively concrete,” 5 for “have made an explicit decision to found a company” or “have a concrete time plan when to do the different steps for founding,” 7 for “have already started with the realization,” 8 for “am already self-employed in my own founded firm,” and 10 for “have already founded more than one company, and am active in at least one of them.”

4.2 Motivational Factors

We then analyzed what motivational factors are associated with entrepreneurial intentions. We confirmed that, of the motives listed in Table 5, self-realization, innovation, recognition, independence and a sense of mission are all significant predictors of entrepreneurial intentions. In addition, these motives were also associated with more positive attitude toward entrepreneurship and greater entrepreneurial efficacy (see Figures 2-1 to 2-5).

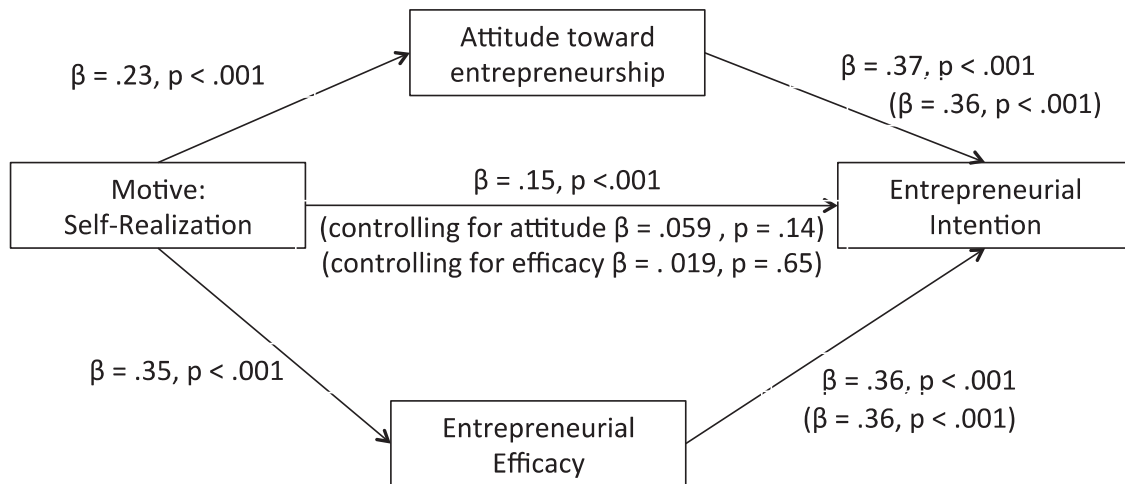


Figure 2-1 Self-realization
(Reliability coefficient of two items $\alpha = .84$)

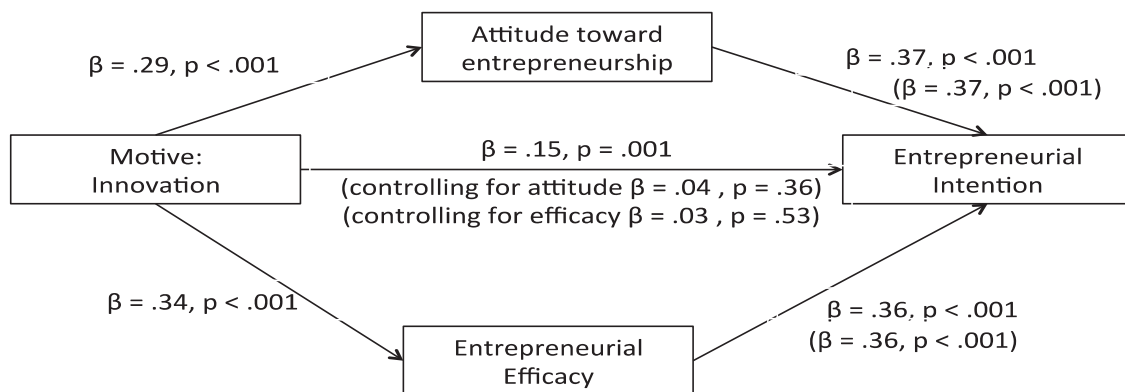


Figure 2-2 Innovation
(Reliability coefficient of two items $\alpha = .73$)

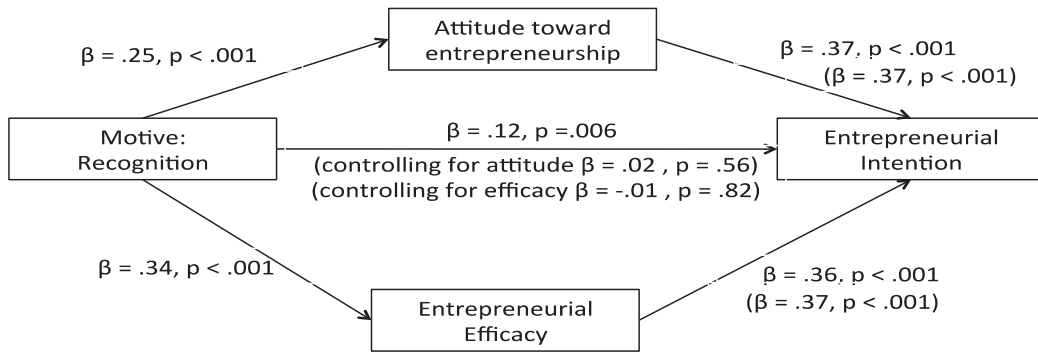


Figure 2-3 Recognition
(Reliability coefficient of two items $\alpha = .66$)

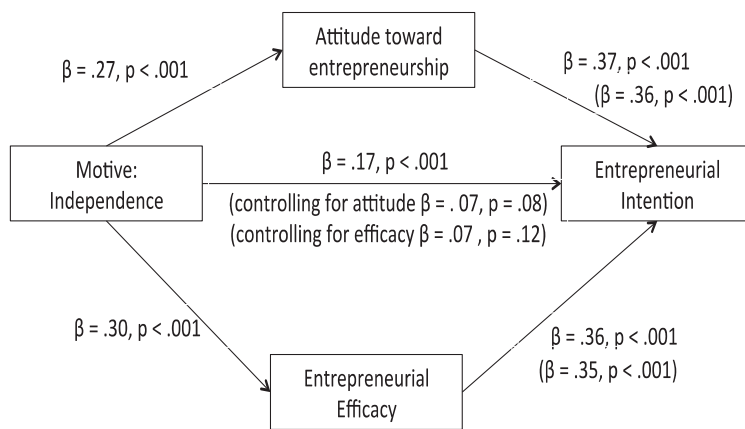


Figure 2-4 Independence
(Reliability coefficient of two options $\alpha = .61$)

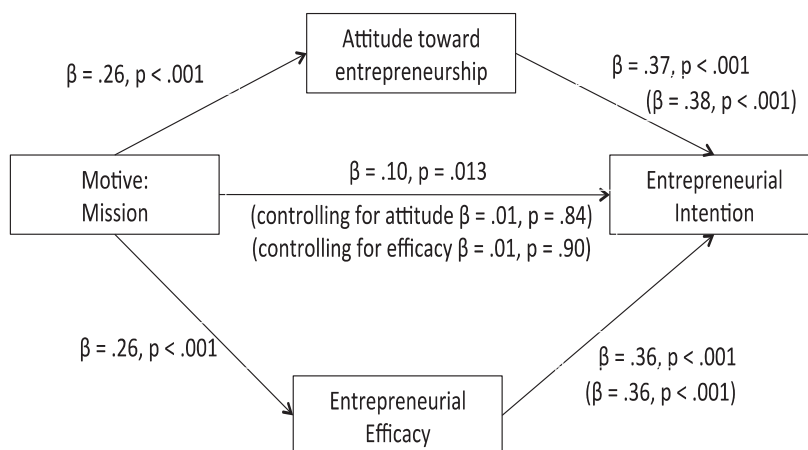


Figure 2-5 Mission
(Reliability coefficient of two items $\alpha = .80$)

4.3 Effect of the Presence of a Family Business

Of the total sample, 21% stated that a parent runs his or her own business. (Ranking 23rd out of 27 countries, worldwide, this figure for Japan is actually quite low.) Targeting this 21%, we examined whether a family business background affects entrepreneurial intentions. We confirmed that having a parent who is self-employed predicts entrepreneurial intentions and positive attitude toward entrepreneurship, but does not predict greater entrepreneurial self-efficacy (see Figure 3).

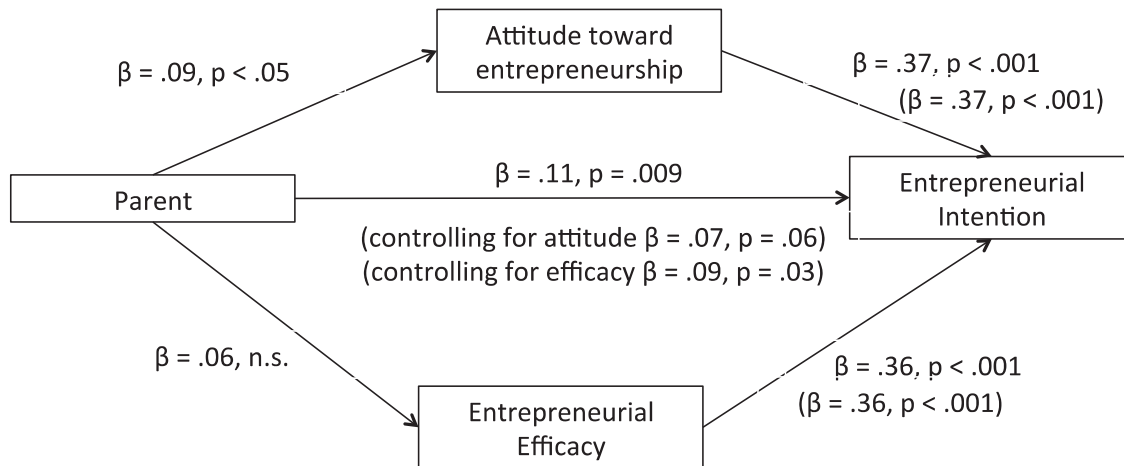


Figure 3 Family Business
(0 = none of the parents is self-employed; 1 = at least one parent is self-employed)

5. Conclusion

We confirmed that university offerings, personal characteristics, social support, various motivational factors and a family business background are all associated with entrepreneurial intentions.

We would also like to point out several notable results, compared with the global average. In terms of entrepreneurial intentions, only 2.1% of respondents in Japan answered that they want to start a business immediately after completing their studies, in contrast to the global average of 4.6%. The percentage of those who responded that they would like to start a venture business in five years in Japan was 20.0%, compared to the global average of 21.6%. This indicates that most Japanese students think that it is difficult to start a venture business immediately after graduation.

There was also a notable difference in students' preparedness for starting such a venture. In Japan, 28.7% (global average: 16.3%) responded that they "had never thought about it," 38.1% (39.1%) had thought about it "sketchily," 21% (21.5%) had thought about it "repeatedly," 8.4% (10.2%) had thought about it in "relatively concrete" terms, 1.6% (5.6%) "had made an explicit decision to found a company," 1.1% (2.8%) "had a concrete time plan when to do the different steps for founding," and 1.1% (2.0%) "had already started with the realization." The proportion of Japanese students who had never thought about starting a venture is, therefore, remarkably large compared to the global average.

Based on the questions presented above, we then compared entrepreneurial progress by targeting only those who were already thinking positively about starting a venture, specifically those who responded "repeatedly" when asked about their entrepreneurial intentions and stated that they "had already started with the realization." In Japan 28.2% (27.0%) had "done nothing so far", 27.9% (64.7%) "had thought of first business ideas," 10.7% (18.7%) had "formulated business plan," 9.3% (34.0%) had "identified market opportunity," 12.5% (27.7%) had "looked for potential partners," 4.6% (9.5%) had "worked on product development," 3.2% (13.3%) had "discussed with potential customers," 0.7% (3.0%)

had “asked financial institutions for funding,” and 1.4% (3.6%) had “decided on date of foundation.” Overall, less than 30% of the Japanese sample responded that they were thinking of business ideas, highlighting the fact that most Japanese students are not seriously preparing to start their own business ventures.

Lastly, in measuring whether students are seriously thinking about starting venture businesses, the presence of a partner is an important factor to consider. Students who responded that they would start their ventures alone, without a co-founder, accounted for 47.9% of the total, ranking Japan second out of the 26 countries studied around the world.

In conclusion, about 30% of the students surveyed had never included entrepreneurship as a possible career choice and, even for those who had, most were still not considering it seriously. However, we should point out that our sample was heavily biased towards business administration and commerce students. Therefore, future surveys need to gather a sample of students from the sciences as well. The International Report analyzes students in terms of their fields of study, and this is something that should also be done in Japan.

References

- Ajzen, I. (2002). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology* 32(1) :1-20.
- Chen CC, Greene PG, Crick A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing* 13(4): 295-316.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior. An introduction to theory and research*. New York: Addison-Wesley.
- International Report GUESSSS 2011(2011), Philipp Sieger, Urs Fueglistaller, and Thomas Zellweger, University of St.Gallen
- Levenson H. (1973). Multidimensional locus of control in psychiatric patients. *Journal of Consulting and Clinical Psychology* 41(3): 397-404.