

## **ENTREPRENEURIAL INTENTION IN JAPAN: AN EMPIRICAL STUDY ON JAPANESE UNIVERSITY STUDENTS**

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### **ABSTRACT**

Though Japan boasts the third largest gross domestic product (GDP) in the world, it still falls far behind other countries in terms of new business entry rates. In order to raise the number of entrepreneurs, we must make evident the factors that contribute to entrepreneurial intention. Yet, these factors are not uniform across all countries. In this paper, we set out to test seven hypotheses based on factors derived from existing research. We then examined the results of surveys that target university students to test the seven hypotheses and were able to find significant differences among university students based on gender and the existence or nonexistence of entrepreneurial parents. We also found that, on the one hand, (1) entrepreneurial self-efficacy, (2) having a specific business idea, and (3) entrepreneurial education has a great impact on entrepreneurial intention. However, on the other hand, the risks associated with business failures and managerial or personal instability was at the root of why certain students were not interested in entrepreneurship. Furthermore, the study also suggests that it is more effective to find ways to reduce risks and tailor entrepreneurial education to concrete business idea creation as a means for elevating the number of entrepreneurs.

**KEYWORDS:** Entrepreneurial Intention, Entrepreneurial Self-Efficacy, Entrepreneurship, University Students

### **INTRODUCTION**

Entrepreneurs who can take a business idea and turn it into a business are the market makers. As these market makers multiply, beneficial goods and services will become more prevalent, competition will prosper, and even the national economy can be revitalized (Acs 2006; Audretsch et al. 2006; Baumol et al. 2007; Casson 2005; Kritikos 2014). There are many factors that can contribute to revitalizing an economy, but having more and more entrepreneurs is said to constitute one of the greatest factors to this end. The Small and Medium Enterprises Agency of Japan tracked and analyzed national business data over a thirty-year span from 1971 to 2000. Their findings demonstrated that there was a high positive correlation between GDP growth and new business entry rates (Japan Small Business Research Institute 2003). Bustling entrepreneurial activity is not only imperative to economic development and innovation in developed countries, but it is also important in the revitalization of production and jobs generation in developing nations (Carree and Thurik 2003; Van Praag and Versloot 2007) .

When the economy is growing, consumer confidence rises and so does income, resulting in more people launching businesses. Whereas, when the economic climate dampens, fewer people will seek out to start a company. However, in times of economic growth, the cost for launching a new business is higher, making it more difficult to start a company. On the other hand, in times of economic decline, unemployment rises, the unemployed find it difficult to find new work, and thus seek new business opportunities. This results in a trend toward more independent business ownership.

Thus, the impact of economic growth on entry rates is not only positive but can also be negative. Furthermore, economic movements are not the only factor determining whether individuals are more inclined to business launches.

Entry rates vary from country to country. When compared to countries such as the United States, Australia, Canada, and the United Kingdom, Japan falls far behind (see Table 1). In the Global Entrepreneurship Monitor 2014 Global Report (Singer et al. 2015), we also see that TEA (Total early-stage Entrepreneurial Activity) rate of Japan is at the bottom among the 29 nations classified as innovation-driven economies. Moreover, the OECD (2010)'s analysis of World Bank data, compiled into international comparisons of yearly averages for entry rates from 2000 to 2007, place Japan at the bottom of the list among 34 member nations.

**Table 1: Total Early-Stage Entrepreneurial Activity Rate of Innovation-Driven Economies (%)**

rank	country	TEA	rank	country	TEA	rank	country	TEA
1	Qatar	16.38	11	Netherlands	9.46	21	Norway	5.65
2	Trinidad & Tobago	14.62	12	Estonia	9.43	22	Finland	5.63
3	United States	13.81	13	Austria	8.71	23	Denmark	5.47
4	Australia	13.14	14	Taiwan	8.49	24	Spain	5.47
5	Canada	13.04	15	Greece	7.85	25	Belgium	5.40
6	Singapore	10.96	16	Luxembourg	7.14	26	France	5.34
7	Slovakia	10.90	17	Switzerland	7.12	27	Germany	5.27
8	United Kingdom	10.66	18	Sweden	6.71	28	Italy	4.42
9	Puerto Rico	10.04	19	Ireland	6.53	29	Japan	3.83
10	Portugal	9.97	20	Slovenia	6.33		Average	8.54

**Note:** TEA rate is the percentages of individuals aged 18-64 in an economy who are in the process of starting a business or are already running a new business, not older than 42 months

**Source:** Singer, S., Amoros, J., and Arreola, M. (2015). *Global Entrepreneurship Monitor 2014 Global Report*. Babson Park, MA, Babson College.

How is it that Japan ranks this low in entry rates despite holding the third place ranking for GDP worldwide? Analysis of 40 years' worth of business establishment entry rates data by the Small and Medium Enterprise Agency (2014) reveals that this figure was 7.0% in 1970, but showed continual decline through to 2010, when it reached its lowest point at 1.9%. (Note: "entry rate" refers to the number of newly registered corporations as a percentage of all registered corporations (OECD 2010).)

The entry rate in Japan, even at its peak, would not be considered high on a global scale. This is due to the fact that entry rates have declined continuously over a long stretch of time. Thus, we now have a situation where the ratio of new enterprises in Japan pales significantly against that of other countries around the world. As a means of addressing this situation, the Japanese government set out to strengthen promotion of business innovation via revisions to the Small and Medium-sized Enterprise Basic Act in 1999. As of 2000, these measures to enhance support for startups have taken hold year after year. Though having these systems tightly in place has not lead to an increase in entry rates, it has served as a means for capturing the interest of primarily younger generations in entrepreneurship. There is an ample body of research on entrepreneurial spirit coming from the U.S.; however, the results of such research cannot necessarily be applied across different cultures (Cox 1997). Thus, we have chosen Japanese university students as the subjects to our study. In this way, we can highlight the relationship between entrepreneurial intention and factors that contribute to said entrepreneurial intention, while at the same time examining the reasons that hamper entrepreneurial intention in subjects.

## LITERATURE REVIEW

According to Ajzen (1991) in psychology, “Intentions are assumed to capture the motivational factors”. Furthermore, we can also understand that being in a mental state[motivation] where you aspire to launch a business is the very definition of entrepreneurial intention (Bird 1989; Katz and Gartner 1988; Krueger and Carsrud 1993; Guerrero et. al. 2008; Thompson E.R. 2009. That is to say that rather than those with weak intentions, it is those of strong intention who have a higher potential to succeed as entrepreneurs (Ajzen 1991; Godin and Kok 1996). It has been demonstrated—not only by social or cognitive psychology scholars, but also management researchers—that “[entrepreneurial] intention is the most important and central determinant of [entrepreneurial] behavior” (Abraham et al. 1998; Bagozzi et al. 1989; Bygrave 1989; Eagly and Chaiken 1993; Gollwitzer and Moskowitz 1996; Krueger 1993; Maddux 1999).

This is why those who study entrepreneurship focus on entrepreneurial intention in their research. Since the 1980s, a number of theoretical models have been proposed to examine how entrepreneurial intention arises and, in particular, what existing factors have an impact on entrepreneurial intention. The SEE: Shapero’s Entrepreneurial Event (Shapero and Sokol 1982) and TPB: the theory of planned behavior (Ajzen 1991) models is quintessential examples of such theories.

The SEE model suggests that certain events in a person’s life—losing a job or becoming the heir to an inheritance—are social and cultural factors that could serve as entrepreneurial triggers (Krueger and Brazeal 1994. That is to say, that the SEE model indicates three factors that affect entrepreneurial intention: 1) perceived desirability, 2) propensity to act, and 3) perceived feasibility (Shapero and Sokol 1982). Perceived desirability means “attitude and social norms” (Krueger and Brazeal 1994). In addition, the concept of perceived feasibility is very similar to self-efficacy (Linan et al. 2005) which is defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” by Bandura (1994).

TPB is the concept that “behavioral achievement depends jointly on motivation (intention) and ability (behavioral control)” (Ajzen 1991). Likewise, the TPB model indicates a separate set of three factors: 1) attitude toward the behavior, 2) subjective norms, and 3) perceived behavioral control(Ajzen 1991). This third factor in the TPB model, perceived behavioral control, is conceptually equivalent to Bandura (1994)’s self-efficacy. From the onset of the TPB model, it has become one of the most widely and frequently used theories for the explanation of human behavior not only in psychology but also in other fields of research (Lin and Lee 2004; Autio et al. 2001).

Thereafter, Krueger et al. (2000) applied these two models, SEE and TPB, to the power that leads to intention and demonstrated that both models embodied nearly identical concepts of perceived self-efficacy. Moreover, Kolvereid et al. (2006) concluded that the TPB and SEE models could be merged and applied to entrepreneurial intention.

However, there are limitations to the TPB model. For one, the model does not account for other factors that also give rise to entrepreneurial intention, such as mood, past experiences, and economic or environmental factors (Boston university 2016. The model also ignores demographics and personality traits. In addition, other studies have highlighted the fact that perceptions of entrepreneurship are not the same in all countries. Culture has a significant impact on whether a group of people views entrepreneurship in a positive or negative light (Carsrud et al. 2007; Davidsson and Wiklund 1997; Krueger and Kickul 2006).

The above are just two theories that have demonstrated the limitations of the TPB model. Some have also proposed a number of other determinants for entrepreneurial intention, from environmental and cultural factors to personality (e.g. age, gender, family, and education). This paper will focus on the following factors to derive a series of hypotheses.

## **HYPOTHESES**

### **Entrepreneurial Self-Efficacy**

Most psychology scholars have argued that self-efficacy is the primary determinant of human behavior and intention. By applying general efficacy to research on entrepreneurship they have developed the concept of and quantitative variables for entrepreneurial self-efficacy. According to Chen et al. (1998), entrepreneurial self-efficacy is defined as “the strength of a person’s belief that he or she is capable of successfully performing the various roles and tasks of an entrepreneurship”. Many empirical studies show that entrepreneurial self-efficacy is the strong predictor of entrepreneurial intention (Carr and Sequeira 2007; Drnovsek et al. 2010; Nwankwo et al. 2012). Thus, we raise the following hypothesis in regard to the case of Japanese university students.

**H1:** Entrepreneurial self-efficacy has a significant correlation with entrepreneurial intention; the higher the self-efficacy, the greater the intention.

### **Gender**

Many researchers revealed that men have higher entrepreneurial self-efficacy and intention than women (Gupta et al. 2009; Haus et al. 2013; Matthews and Moser 1995; Wilson et al. 2007). Notwithstanding, such gender gap varies by country and is even absent from a large body of research. Notably, studies by Ozaralli and Rivenburgh (2016) revealed that, among Turkish university students, the men actually had lower intention for self-employment than women; and, in the case of their American counterparts, there was no significant difference between males and females. In addition, results of Esnard (2010)’s quantitative research on university students in Caribbean countries indicated no significant difference in the entrepreneurial attitude orientation scores of male and female students.

Though Japan has seen a gradual rise in the number of female managers, they still account for merely 7.5% of the national total (Teikoku Data Bank 2015). The same trend can be seen in the gender distribution of entrepreneurs overall. As of 2010, women account for 15% (METI2012), a low figure signifying that well over half of all entrepreneurs in Japan are male. We can, therefore, concur that these low numbers are one of the reasons why we see fewer entrepreneurially-inclined women. Thus, we raise the following hypothesis in regard to the case of Japanese university students.

**H2:** There is a difference in the level of entrepreneurial self-efficacy between men and women, with men on the higher end of the spectrum. Therefore, men have more entrepreneurial intention than women.

### **Entrepreneurship Education**

Nevertheless, the educational factor also proves to be important. A number of studies have shown that entrepreneurial education is significant in giving rise to entrepreneurial intention, because it can spark students’ interests and curiosity toward entrepreneurship (Fayolle et al. 2006; Kolvereid and Moen 1997; Martin et al. 2013). There is also evidence that students who have completed entrepreneurial programs demonstrated higher aspirations for entrepreneurship

than those who had never participated in such programs (Peterman and Kennedy 2003). A person must have strong determination and a concrete business idea to become an entrepreneur (Matthews 2007). In this respect, we can expect those students in the social sciences with strong inclination toward entrepreneurship, particularly those who have taken business courses, to be able to give form to their business ideas in a concrete manner. Thus, we raise the following two hypotheses in regard to the case of Japanese university students.

**H3:** Students who have taken business-related courses have more entrepreneurial intention than those who have not.

**H4:** Students with concrete business ideas have more entrepreneurial intention than those who have none.

### **Entrepreneurial Parent(s)**

Another important factor is whether or not either of the student's parents is an entrepreneur. Countless studies have demonstrated the great influence a parent's occupation can have on career choices for a child (Keller and Whiston 2008). It is also evident that if one of the child's parents is an entrepreneur, the child will have greater entrepreneurial intention. Lindquist et al. (2015) found that "having an entrepreneur for a parent increases the probability that own-birth children become entrepreneurs by 60%". Fatoki(2014), however, found no significant differences in entrepreneurial intention scores between students whose parents run a business and those whose parents do not. Other studies also corroborate these findings. Nevertheless, entrepreneurial intention can still be said to be high among students with entrepreneurial parents, because acclimation to the managerial lifestyle of their parents engenders a high self-efficacy. Thus, we raise the following hypothesis in regard to the case of Japanese university students.

**H5:** Students with entrepreneurial parents have more entrepreneurial intention than those whose parents are not entrepreneurs.

### **Anxiety over Imminent Hindrances**

Compared to people in other countries, Japanese have a strong inclination toward seeking job security (MHLW 2014). Launching a business involves managing various matters, thereby creating instability. A person who has a strong desire for stability is less likely to also possess the ambition to launch a business. Take someone who is married with children as an example; that person has the duty to support a family, which requires him/her to be able to secure a stable income. Launching a business would pose a great obstruction to such stability. The more a university student feels apprehensive of such imminent hindrances in his/her future, the less entrepreneurial ambition said student will have. Thus, we raise the following hypothesis in regard to the case of Japanese university students.

**H6:** Students who think it difficult to launch a business while married with children have less entrepreneurial intention than those who do not.

### **Reasons for Deterring from Entrepreneurship**

The low TEA and entry rates in Japan signify the high number of people who are not interested in becoming entrepreneurs. Most university students who choose to be employees do not wish to launch businesses in the future. If they choose to become entrepreneurs, it is highly probable that business operations might not run smoothly, leading to failure and eventual bankruptcy. Becoming an entrepreneur can also bring about instability in their lives. All these possible

outcomes are reasons that deter students from choosing to become entrepreneurs. Though the tedious procedures involved in establishing a company or the amount of time someone has to invest in the endeavor can also be seen as reasons for not engaging in entrepreneurship, it is their aversion to risk—the high probability of failure—that deters university students and drives them to choose the employment route. Thus, we raise the following hypothesis in regard to the case of Japanese university students.

**H7:** The main reason why a student does not envision entrepreneurship in his/her future is because there is a high risk that the business will fail.

## METHODOLOGY

We chose some of the factors that are thought to correlate with entrepreneurial intention: gender, existence/nonexistence of entrepreneurial parent(s), self-efficacy, educational factors (experience with entrepreneurship education), having a concrete business idea, imminent hindrances such as difficulty becoming an entrepreneur after marriage or having a family. We then developed questions on subjects' awareness of these selected factors.

We plotted the following six items developed by Wilson et al. (2007) on a scale to measure entrepreneurial self-efficacy, and then used the scale to create synthetic data. These items are related to financial control, economic management, innovation, originating and improving product and ideas, human competence, leading and inspiring all constituencies, developing human resources, making and taking responsibility for decisions (Wilson et al. 2007).

- Being able to solve problems
- Managing money
- Being creative
- Getting people to agree with you
- Being a leader
- Making decisions

The targets of our study are Japanese social science majors currently enrolled at university (in Kanagawa Prefecture). The students filled out a self-administered questionnaire. The questionnaire was administered in July 2015, and we obtained valid responses from 206 respondents (104 male and 102 female students). We applied the Statistical Package for the Social Sciences (SPSS) to compute the data from their responses, and then analyzed the data to test our hypotheses.

We assigned measurements to each variable. For gender, female=0, male=1. For existence of entrepreneurial parent(s), no=0 and yes=1. For the six other variables (falling into the categories of entrepreneurship education, having a concrete business idea, imminent hindrances such as difficulty becoming an entrepreneur after marriage or having a family, and self-efficacy), we used a 5-point Likert scale ranging from 1=strongly agree to 5=strongly disagree. We used the combined value of the two following question items to measure entrepreneurial intention.

- Want to launch a business in the future
- Want to launch a business some years after graduating from university

We used the SPSS to analyze the data and text analysis on the free-form answers to why certain respondents do not want to become entrepreneurs.

**RESULTS AND DISCUSSIONS**

We conducted regression analysis to test the relationship between entrepreneurial self-efficacy (the independent variable) and entrepreneurial intention (the dependent variable) and found that the former explains 27.4%(adjusted R-square) of the variation in the latter ( $F=78.14, p < .001$ . This proves that the higher the entrepreneurial self-efficacy ( $t=8.84, p < .001$ , the greater the entrepreneurial intention, thereby proving **H1**.

**Table 2: Coefficients (N=204)**

Variables	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	$\beta$	t-value	
Constant	.676	.644		1.049	.295
Entrepreneurial Self-Efficacy	.325	.037	.527	8.840	.000
R-square				.278	
Adjusted R-square				.274	

Dependent Variable: Entrepreneurial Intention

We conducted an independent t-test to consider the gender gap component (see Table 3). Our results indicated significantly higher correlation for females at a level of 5% over males in terms of the relationship between entrepreneurial self-efficacy ( $t = 2.22, df = 203, p < .05$ ) and intention ( $t = 2.14, df = 204, p < .05$ ). This means that men have higher self-efficacy and more entrepreneurial intention than women, thereby proving **H2**.

The results of correlation analysis on the variables indicated a significant correlation between entrepreneurial intention and the following variables: gender, entrepreneurial parent(s), entrepreneurial self-efficacy, entrepreneurship education, and having a concrete business idea. In contrast, no significant correlation was found to exist between entrepreneurial intention and imminent hindrances such as difficulty becoming an entrepreneur after marriage or having a family.

**Table 3: Independent t-Test of Gender Gap**

	Male		Female		t-value
	M	SD	M	SD	
Entrepreneurial Self-Efficacy	16.38	4.51	17.67	3.77	2.22 *
Entrepreneurial Intention	5.83	2.61	6.59	2.51	2.14 *

\*  $p < .05$

**Table 4: Correlation Coefficients between Variables**

	Mean	SD	Entrepreneurial Intention						
			1	2	3	4	5	6	
1. Gender	.500	.501	-.148*	1.000					
2. Entrepreneurial Parent(s)	.150	.358	-.276**	.037	1.000				
3. Entrepreneurial Self-Efficacy	17.020	4.198	.527**	-.154*	-.080	1.000			
4. Entrepreneurship Education	2.630	1.333	.272**	.182**	-.086	.209**	1.000		
5. Having a Concrete Business Idea	3.550	1.029	.503**	-.095	-.172*	.489**	.172*	1.000	
6. Difficulty of Becoming an Entrepreneur after Marriage or Having a Family	2.780	1.019	-.090	-.287**	-.041	-.004	-.130	-.054	1.000

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

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

We conducted multiple regression analysis with entrepreneurial intention as the dependent variable (see to Table 5). The results of this analysis indicated that the six independent variables explained 41% of the factors affecting entrepreneurial intention ( $F=24.77$ ,  $p < .001$ ). The variance inflation factor (VIF) for all the independent variables proved to be at a low level ( $<2.0$ , and Table 2 also shows that there was no high correlation between the variables. Therefore, serious problems of multicollinearity are not said to exist. The only variables that were found to reach a significant level of 5% were gender, entrepreneurial self-efficacy, experience with entrepreneurship education, having a concrete business idea, and existence/nonexistence of entrepreneurial parent(s); whereas, imminent hindrances to becoming an entrepreneur (due to marriage or having a family) was found to not be a significant factor affecting entrepreneurial intention, thereby supporting **H3** through **H5** and refuting **H6**.

**Table 5: Multiple Regression Analysis (N=204)**

Variables	Unstandardized Coefficients		Standardized Coefficients		Sig.	VIF
	B	Std. Error	$\beta$	t-value		
Constant	.795	.851		.934	.351	
Gender	-.622	.300	-.120	- 2.076	.039	1.168
Entrepreneurial Self-Efficacy	.204	.039	.332	5.258	.000	1.379
Entrepreneurship Education	.291	.110	.150	2.645	.009	1.120
Having a Concrete Business Idea	.668	.157	.266	4.248	.000	1.361
Entrepreneurial Parent(s)	-1.367	.394	-.190	- 3.466	.001	1.039
Difficulty of Becoming an Entrepreneur after Marriage or Having a Family	-.248	.143	-.097	- 1.726	.086	1.105
R-square			.429			
Adjusted R-square			.411			

Dependent Variable: Entrepreneurial Intention.

The university students who indicated that they did not want to be entrepreneurs in the future accounted for 45.6% of all respondents. These students were asked to indicate their answers in free-form. We conducted text analysis of the responses given by 86 students. The results indicate that the most common reason for feeling deterred from entrepreneurship is the high risks involved if the business fails (see to Table 6). The second most common response was concerns over instability in their business management or daily life. The Ministry of Health, Labour and Welfare's 2013 report has also determined that the percentage of Japanese youth(18-24years old) who prefer to work at a single company

for the long-term is much higher than US, UK, France, and South Korea (MHLW2013). This means that rather than pursuing increased wealth through entrepreneurship, there is a higher tendency to seek a stable work life. Thus, this constitutes a negative side effect that deters a person’s entrepreneurial ambitions, thereby supporting **H7**.

**CONCLUSIONS**

In this paper, we raised and tested seven hypotheses pertaining to factors affecting entrepreneurial intention and reasons for deterring from entrepreneurship. We found that entrepreneurial self-efficacy was also a major factor affecting entrepreneurial intention for Japanese university students. In terms of distinguishable characteristics, we also determined that such qualities as gender and the presence or absence of entrepreneurial parents also has a significant impact on entrepreneurial intention.

This study unveiled some unprecedented findings. First, that having a business idea can have a significantly strong impact on entrepreneurial intention. Furthermore, that by proving the importance of entrepreneurship education, the study suggests that we can raise the number of entrepreneurially-inclined individuals through education that focuses on entrepreneurship, where the creation of a business plan can serve as a means for solidifying business ideas. Therefore, further research must be conducted to investigate how entrepreneurial education can contribute to business idea creation by running analyses prior to and following entrepreneurship-related courses and training.

Moreover, it is not only necessary to raise the number of entrepreneurs, but it is also important to lower the number of university students who deter from entrepreneurship. Many have pointed out that there are no systems in place for failed entrepreneurs to relaunch a business and that the current laws in Japan do not suffice when compared to other countries. The Japanese government should consider ratifying bankruptcy laws and other pertinent laws to make it easier for people to launch a business, as well as figuring ways businesses can secure sufficient capital (in real estate or fixed deposits) in the event an established company does go under. In doing so, the risks surrounding entrepreneurship could be minimized, and the number of university students with high entrepreneurial intention would also multiply.

**Table 6: Reasons for Deterring from Entrepreneurship (Text Analysis)**

	Frequency	Percentage (%)
1. High risks surrounding business failures	23	26.7
2. Instability in business and/or personal life	12	14.0
3. No knowledge of or capacity for entrepreneurship	8	9.3
4. Lack of confidence in leading a business to success	4	4.7
5. A larger time investment than being an employee	2	2.3
Other	37	43.0
Total	86	100.0

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