The Entrepreneurship education in university in Japan : The Ways of Entrepreneurship Education Based on the Quantitative Analysis

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1. Background

The entrepreneurship education in this paper, as individuals who self-reliance is also mentally and economically, have the awareness of the issues, aim to develop human resources forward to once again change better existing society to challenge new things given the opportunity to students can run their own thinking, to help to cultivate the forces such as the following at the lecture

・Imagination

・Creativity

・Problem finding ability

・Problem-solving skills

In Japan, the majority of surveys on entrepreneurship education and entrepreneur development have been conducted by think tanks and the Ministry of Economy, Trade and Industry. In the academic field, there have been studies intended to develop an "entrepreneurial attitude". The purpose of these studies was the advancement of studies on entrepreneurship education in order to increase the Total Early-State Entrepreneurial Activity (TEA) rate of 3.7 percent[1], which is one of the lowest rates in the world (Takahashi, 2009, 2013).

Japanese universities offering entrepreneurship education as well as entrepreneurship courses are growing in number. According to the Ministry of Education, Culture, Sports, Science and Technology (2006) and the Daiwa Institute of Research Group (2010), the number of universities offering entrepreneurship education almost doubled (from 139 to 252) while the number of entrepreneurship courses tripled (from 330 to 1,078) between 2000 and 2010. On the other hand, however, the average number of students enrolled in one entrepreneurship course is 20, which accounts for 0.7 percent of the 2.8 million university students in Japan (Daiwa Institute of Research Group, 2010). This number indicates that the vast majority of the students do not take any entrepreneurship courses. This paper starts with this question: Has this situation resulted not only from the quantity issues of the entrepreneurial education but also from the quality issues?

Generally, quality issues in any education including entrepreneurship education can be examined based on the instructional format and content. From the perspectives

of instructional format ("Lecture format") and content ("social value creation"), this study will make strategic proposals for the entrepreneurship education in Japanese universities. Why are "Lecture format" and "social value creation" so important in the entrepreneurship education? The following section will explain how I came to argue this question in this paper.

1-1. Reform of Instructional Format

Generally, entrepreneurship education format can be divided into a "lecture format" and a "Lecture format" (Daiwa Institute of Research Group, 2010). A "lecture format" is that gained by actually doing something rather than learning about it from books, lectures, etc. A "Lecture format" remains the most pervasive teaching format across the field of higher education. There are good reasons to use lectures as they are efficient means to control content, organization and pace of a presentation, particularly in large groups. According to Daiwa Institute of Research Group (2009), entrepreneurship education in Japanese universities is primarily in the traditional lecture format and "hands-on classes (with students' presentation and group exercise)" account for only 19.1 percent of all the undergraduate entrepreneurship classes (28.9 percent in the graduate classes). Based on this information, this study will examine the need for entrepreneurship classes in a "Lecture format", the

first background of this study.

If the large number of classes in the traditional lecture format is the cause of low enrollment in entrepreneurship courses, increasing the number of courses in a "Lecture format" should help raise the enrollment numbers. This assumption is based on a reason that the lecture format imposes a passive learning situation on students despite the nature of entrepreneurship requiring the ability to be proactive (or the desire of students who wish to become proactive). Moreover, learning theories of entrepreneurship in a lecture format is simply insufficient when it comes to "planning a new product or starting a business"; therefore it is necessary to acquire hands-on knowledge and skills that students will need in the real world. In other words, this study is based on the perspective that acquiring such hands-on knowledge and skills is what they "expect from the entrepreneurship education".

For instance, students can learn how to define business mission, manage cash flow, estimate market size, analyze the three C's (Company, Competition, and Customer), measure feasibility, and create market plans through the exercise of developing business plans and procedures. Also, through the process of conducting case studies in entrepreneurship and venture management, they can develop essential skills required for venture managers, such as engaging in constructive discussion within the group or with other groups or making better busi-

ness decisions faster to specify and solve problems with limited information within a limited amount of time. Another effective method to develop both leadership and followership is a role-playing game (RPG), in which a group of students competes with other groups as each student plays his/her own role within the group to achieve a given goal. The game element of this exercise helps the students overcome the psychological hurdles in handling difficult tasks such as new product planning and starting a business, allowing them to continue focusing on difficult challenges one by one and helping them develop a sense of accomplishment. The game element can also help the students gain a better understanding of entrepreneurial theories by applying what they learned through lectures.

1-2 Reform of Instructional Content

This study argues that entrepreneurship education through social value creation is necessary to improve its content. The background that led to this argument is as follows. According to the ministry of Health, Labor, and Welfare (2013), university students who want to make a direct social contribution through social entrepreneurship and volunteer work account for 13.3 percent (n=481) of all the university students in Japan.[2] However, universities are not offering a sufficient number of entrepreneurship courses that can meet the demand of their customers. According to Deloitte Touche Tohmatsu (2014), only a small number of undergraduate and graduate courses include discussion of social challenges. Based on this information, this study will examine entrepreneurship education in universities through social value creation, the second background of this study.

In terms of social value creation, Porter and Kramer (2011) proposed the theory of "Creating Shared Value (CSV)". This is a framework for "creating economic value by creating social value while simultaneously addressing social needs and challenges". Porter (2011) argues that the "concept of CSV allows companies to formulate strategies that are unique and tailored to an individual company"[3]. For instance, a company called Greenology Products[4] started its business and entered into the US laundry detergent market with a differentiation strategy of pursuing social value creation, which is to "offer organic products to maintain environmental sustainability". Although laundry detergent products are considered difficult to differentiate, Greenology Products became successful in the market and has maintained a competitive advantage over its competitors. The theory of CSV was originally proposed to companies, but this study will apply the concept of social value in CSV to the entrepreneurship education in Japanese universities for the examination.

For instance, "the world's leading universities, including Business School of Harvard

University in US and Saïd Business School of the University of Oxford in England, offer a large number of social business curricula to their students" (Japan Association of Corporate Executives, 2010). In Japan, there are some universities, such as the Department of Policy Management of Keio University [5] and Social Entrepreneur School, which have not only increased the number of students majoring in entrepreneurial studies and boosted the course enrollment, but also differentiated their programs from those of other reputable universities by adding "social value" to their education program. Specifically, the universities provide access to hands-on learning opportunities that allow their students to develop new business models that pursue social innovations, or in other words, "social outcomes" and "economic outcomes". By producing social entrepreneur alumni, they successfully developed their own brand.

Why did these universities successfully attract prospective students despite the fact that their programs have not yet gained high name recognition? How have they maintained differentiation in their program delivery? More than likely, their "entrepreneurship education through social value creation" has lived up to their students' expectation, which created continuous "differentiation" of their entrepreneurship education.

As a reason not to take the lessons of entrepreneurship, in this paper, we use the finally adopted explanatory variable. However, it is one of them. For example, for the factors that determine whether to take, there is no compelling subjects must not have professor taught the subject. It should be noted that there are several possibilities.

2. Review of Previous Studies and Generation of Hypotheses

2-1 Review of Previous Studies

We reviewed major studies on entrepreneurship education in Japan, which serve as a background of this study as explained below. As Takahashi (2013) pointed out, "Japan is in need of entrepreneurship education that can help develop entrepreneurial attitude. One of the reasons why our country's entrepreneurial activity remains lower than that of other developed countries is the overwhelming number of people lacking entrepreneurial attitude". He worked with Babson College Fontys International Business School (FIBS) offering hands-on entrepreneurship programs to make a comparative examination of case studies.

Using binominal analysis, Takahashi (2014) demonstrated that Japan would increase entrepreneurial activity (high TEA) if the conditions of entrepreneurial attitude were identical to those of the G7 nations (excluding Canada). Based on the analysis result, Takahashi (2014)argued that education to develop entrepreneurial attitude would be effective for boosting entrepreneurship in Japan. Kawana (2014) pointed

out that the contributing factor to Japan's low entrepreneurial attitude is the exaggerated portrayal of entrepreneurs as "heroic figures". Based on the idea that interacting with entrepreneurs and business managers in adolescent years might stimulate entrepreneurship mindsets of young generations, he studied a business plan competition for high school students hosted by the Japan Finance Corporation. He concluded that building relationships with people and organization in the local community during high school years could boost entrepreneurship among the students.

The backgrounds and major studies explained above do not specify which "Lecture formats" are used or which "social values" are created in relation to the entrepreneurship education in universities and the CSV strategy proposed by Porter and Kramer (2011). Moreover, the studies do not provide any insight on the cause-and-effect relationship between each Lecture format or each social value and the students' level of expectation for entrepreneurship education. When examining theory or putting theory into practice, performing a quantitative comparative analysis on the importance of each Lecture format and social value should be a very meaningful approach. However, the reviewed studies are case-oriented and lack numerical approaches. Surveys conducted by the think tanks, including Daiwa Institute of Research Group (2009), Japan Association of Corporate Executives (2010), and

Deloitte Touche Tohmatsu (2014), placed an emphasis on calculating frequency distribution and offer limited results from academic studies.

2-2 Research Question

What is determined by what factor is the expected value of the lesson? Of course, it is conceivable, in the manner described below, such a variety of factors. Expected value for the tuition by students, (1) attribute: the so-called socio-economic factors and what is defined strongly by the results, of the students, (2) environmental factors: in particular of school attending children regional personality and university whether defined strongly by the features, there is interaction by (3) attributes and social factors.

Based on the breaking point of the previous studies, we specified a primary question of this research: "Improving the quality of entrepreneurship education in Japanese universities: Can classes in a Lecture format and social value creation boost the students' level of expectation for entrepreneurship education?" In order to derive the answer step by step, we broke down the primary question into the following three secondary questions.

1. Is there a difference between the students' level of expectation for the lecture format and that of the Lecture format?

2. Among four Lecture formats, which format do the students have the highest

expectation?

3. Which combination of the "Lecture format" and the "social value" boosts the students' expectation most?

2-3 Generation of Hypotheses and Theoretical Grounds

As an answer to the above 3 questions, three hypotheses were generated.

Hypothesis 1: There is a difference between the students' level of expectation for the lecture format and that for the Lecture format.

Hypothesis 2: Among four Lecture formats, the format of "collaboration with a company to develop a product or start a business" boosts the students' level of expectation for entrepreneurship education most.

Hypothesis 3: Combination of an entrepreneurial class in a Lecture format and social value of "support for other community/ social businesses" boosts the students' expectation most.

Theoretical Grounds:

Hypothesis 1: If the large number of lecture format is the cause of low enrollment in entrepreneurial courses, it can be assumed that increasing the number of Lecture format might boost the students' level of expec-

tation for entrepreneurship education, which might also help improve the enrollment. We generated Hypothesis 1 because I recognized a need for validation.

Hypothesis 2: This hypothesis is based on Hypothesis 1 that the Lecture format might boost the students' level of expectation for entrepreneurship education more than the lecture format. We specified four primary Lecture formats for this research: "Implementation of a case study on entrepreneurship and venture management (Daiwa Institute of Research Group, 2009) ", "development of a business plan (Daiwa Institute of Research Group, 2009)", "Role-Playing Game (RPG)", and "collaboration with a company to develop a product or start a business". Out of these four formats, "collaboration with a company to develop a product or start a business" is considered to provide the most hands-on experience (considering that product development is highly feasible). For this reason, we generated Hypothesis 2, which assumes that this

Lecture format boosts the students' level of expectation for entrepreneurship education most.

Hypothesis 3: Social value is "creating shared value" mentioned by Porter and Kramer (2010), but the previous study by Kawana (2014) focused entirely on "community revitalization and development". In this paper, we examine 14 types of social values (See Figure 1 in the next section.) in reference to the report by the Ministry of Economy, Trade, and Industry to generate, measure, and validate this hypothesis. We generated Hypothesis 3 because we consider the social value of "support for other community/social businesses [6]" most feasible when students are making a contribution to society.

3. Analysis and Result

3-1 Operationalization of Variables

As a prerequisite for hypothesis validation, variables need to be operationalized for measurement. Therefore two variables were specified: "types of entrepreneurial classes in a Lecture format" and "types of social values". First of all, the types of entrepreneurial classes in a Lecture format have four primary formats as discussed in the previous section. We adopted the format of "implementation of a case study on entrepreneurship and venture management" and "development of a business plan" presented by the Daiwa Institute of Research Group (2009) to this study

Figure 1: Types of Social Values

Community revitalization and development	Homeless self-reliance support
Health/medical/welfare	Sightseeing
Education/human resource development	Arts/culture/entertainment
Environmental protection/preservation	Support for other community/social businesses [7]
Industrial rehabilitation	International exchange/cooperation
Parenting support	Sports
Support for the disabled and elderly	Public safety/security (disaster/crime prevention), transportation

"Report of Social Business Study Committee (revised version)" by the Ministry of Economy, Trade, and Industry (2008)

because they were defined as "classes in an interactive Lecture format".

We added the formats of "RPG" and "collaboration with a company to develop a product or start a business" to complement the above formats. The RPG is a profit maximization game in which students are divided into groups, exchange management resources of their group (company), and perform production activities. This format has been adopted by several universities including Shinagawa Joshi Gakuin and the School of Management of Tokyo University of Science. Also, some universities and companies have been implementing the format of "collaboration with a company to develop a product or start a business".

Secondly, social values were operationalized in Figure 1 based on the report by the Ministry of Economy, Trade, and Industry (2008). Since this report covered the area of social business in the questionnaire, we determined that it was reasonable to define social business as one of the "types of social values" and incorporate it into my study. As

we could not find any other social value, We operationalized the 14 types of social values. Also, the description of "disaster/crime prevention" in the report is defined as "public safety/security" in this paper, but it was parenthesized and incorporated into the list as the 15th social value.

3-2 Analysis Method and Survey Overview

Many of the formats and content of entrepreneurship education to be measured in this study have not yet been adopted by universities; therefore their "expectation before purchasing or consuming a product [8]" will be measured on a scale of one to five. Although the six-point scale would produce more significant results than the five-point scale, we adopted the five-point scale to enhance the credibility of the results. In an effort to compare the mean values of students' level of expectation for entrepreneurship education, we validated the above three hypotheses by performing a one-way analysis of variance and multiple comparisons. With regard to

Figure 2: Survey Overview

Title	Expectation of Entrepreneurship Education in Universities
Method	Online and paper survey questionnaire
Respondents	Japanese college students
Period	April 6, 2014 to April 22, 2014
Sample number	200 （Response rate: 100%) [9]
Statistical Software	IBM SPSS Statistics 19, Amos Graphics 22

Hypothesis 2, additional hypotheses and models will be presented and validated using covariance structure analysis in Section 4. Figure 2 below shows the survey overview. With a survey title of "Expectation of Entrepreneurship Education in Universities", we carried out the survey using both the online (Google Forms) and paper questionnaire without providing any survey details to the respondents in order to prevent response bias. Based on a sample (*n=200*) obtained from the survey, we processed and analyzed the data using two statistics software: IBM SPSS Statistics 19 and Amos Graphics 22.

3-3 Analysis Result

First of all, this section explains the analysis result of the difference between the students' level of expectation for the lecture format (Hypothesis) and that for the Lec-

ture format (Hypothesis 2). The result of one-way analysis of variance indicates the significant difference between the format of "collaboration with a company to develop a product or start a business" and the lecture format (F (4, 396) = 5.939, p < 0.001). The result of multiple comparisons (Sidak method at 5% level) shows that "collaboration with a company to develop a product or start a business" has the higher mean value of the students' expectation than any other Lecture formats (although it was not significantly different from that of the RPG format). The level of expectation for the lecture format as well as the other three Lecture formats, including "implementation of a case study on entrepreneurship and venture business", "development of a business plan", and "RPG", were not significantly different from each other.

Figure 3: Within-Subjects Factors and Descriptive Statistics

Name of measured variable: MEASURE_1

Entrepreneurial Education Format	Dependent Variable
1	Lecture
2	Case study
3	Business plan
4	RPG
5	Product development or starting business through collaboration with a business

Dependent Variable	Mean Value	Standard Deviation	N
Lecture	3.67	1.129	100
Case study	3.68	1.162	100
Business plan	3.67	1.198	100
RPG	3.78	1.194	100
Product development or starting business through collaboration with a business	4.11	1.109	100

Figure 4: Pairwise Comparison

Name of measured variable: MEASURE_1

I Entrepreneurial education format	J Entrepreneurial education format	Difference in means (I-J)	Standard error	Significance probability [a]	95% average mean confidence interval [a]	
					Minimum	Maximum
1	2	-.010	.090	1.000	-.269	.249
	3	.000	.102	1.000	-.293	.293
	4	-.110	.123	.991	-.462	.242
	5	-.440*	.123	.006	-.793	-.087
2	1	.010	.090	1.000	-.249	.269
	3	.010	.093	1.000	-.255	.275
	4	-.100	.118	.994	-.437	.237
	5	-.430*	.102	.001	-.721	-.139
3	1	.000	.102	1.000	-.293	.293
	2	-.010	.093	1.000	-.275	.255
	4	-.110	.117	.987	-.445	.225
	5	-.440*	.098	.000	-.720	-.160
4	1	.110	.123	.991	-.242	.462
	2	.100	.118	.994	-.237	.437
	3	.110	.117	.987	-.225	.445
	5	-.330	.124	.087	-.685	.025
5	1	.440*	.123	.006	.087	.793
	2	.430*	.102	.001	.139	.721
	3	.440*	.098	.000	.160	.720
	4	.330	.124	.087	-.025	.685

Data based on the estimated marginal means
[a] Sidak corrections for multiple comparisons
*Difference in means is .05 on average and significant.

The analysis results on the combinations of Lecture formats and social values (Hypothesis 3) are discussed next. The results of one-way analysis of variance and multiple comparisons (Sidak method at the 5% level) indicate that the combination of an entrepreneurship class in a Lecture format and the social value of "support for other community/social businesses" has the highest mean level of students' expectation. However, this level was not significantly different from that of other social values, including "education/human resource development", "sightseeing", "international exchange/cooperation", "industrial rehabilitation", and "community revitalization and development" **(See Figure 4.)**. For this reason, this study cannot fully support this result. (F (13, 1287) = 12.841, p < 0.001). Although Kawana (2014) stressed the importance of "community networking", this study demonstrated that it is not necessarily relevant to the entrepreneurship education in universities since the mean value was not significantly high.

Figure 5: Descriptive Statistics and Within-Subjects Factors

Name of measured variable: MEASURE_1

	Means Value	Standard Deviation	N
Community revitalization and development	3.58	1.148	100
Health/medical/welfare	3.20	1.198	100
Education/human resource development	3.85	1.132	100
Environmental protection / preservation	3.36	1.159	100
Industrial rehabilitation	3.59	1.156	100
Parenting support	3.28	1.138	100
Support for the disabled and elderly	3.10	1.202	100
Homeless self-reliance support	2.74	1.125	100
Sightseeing	3.73	1.100	100
Arts/culture/entertainment	3.43	1.281	100
Support for other community / social business owners	3.98	1.063	100
International exchange / cooperation	3.73	1.145	100
Sports	3.19	1.228	100
Public safety/security (disaster/crime prevention), transportation	3.35	1.218	100

Social Value	Dependent Variable
1	Community revitalization and development
2	Health/medical/welfare
3	Education/human resource development
4	Environmental protection / preservation
5	Industrial rehabilitation
6	Parenting support
7	Support for the disabled and elderly
8	Homeless self-reliance support
9	Sightseeing
10	Arts / culture/entertainment
11	Support for other community / social business owners
12	International exchange / cooperation
13	Sports
14	Public safety/security (disaster/crime prevention), transportation

Figure 6: Pairwise Comparison

Name of measured variable: MEASURE_1

I Social Value	J Social Value	Difference in means (I-J)	Standard error	Significance probability [a]	95% average mean confidence interval [a]	
					Minimum	Maximum
11	1	.400	.130	.222	-.064	.864
	2	.780*	.143	.000	.272	1.288
	3	.130	.124	1.000	-.314	.574
	4	.620*	.126	.000	.170	1.070
	5	.390	.120	.130	-.037	.817
	6	.700*	.137	.000	.210	1.190
	7	.880*	.135	.000	.399	1.361
	8	1.240*	.134	.000	.762	1.718
	9	.250	.133	.997	-.224	.724
	10	.550*	.132	.006	.079	1.021
	12	.250	.111	.917	-.147	.647
	13	.790*	.151	.000	.251	1.329
	14	.630*	.144	.003	.117	1.143

The analysis results can be summarized as follows. First of all, the students' level of expectation for "collaboration with a company to develop a product or start a business" was significantly higher than that of the entrepreneurship class in a lecture format. Some respondents expressed their expectation for hands-on learning in response to an open-ended question asking for "opinions and comments on the entrepreneurship education in your university". Secondly, the format of "collaboration with a company to develop a product or start a business" indicates higher mean expectation level than any other Lecture formats (although it was not significantly different from that of the RPG). The com-

bination of the entrepreneurship class in a Lecture format and the social value of "support for other community/social businesses" had the highest mean expectation level (although this study cannot fully support this result). Finally, a number of respondents pointed out flaws of the current entrepreneurship education in response to the open-ended question. The survey result also suggested that some respondents were not students in business administration. There were a few respondents who expressed their support for the lecture format offered at their school while others provided a negative comment on the approach of offering entrepreneurship education in universities.

4. Examination

4-1 Two Strategic Proposals

Based on the analysis results discussed in the previous section, this section examines the results and present two strategic proposals for entrepreneurship education in universities.

Strategic Proposal 1: With a goal of offering "collaboration with a company to develop a product or start a business" for the third-year students, enhance the first- year students' knowledge and experience by inspiring them with lectures by venture manager and boost the level of expectation by increasing the number of hands-on classes every year.

There are some Japanese universities and companies implementing the "collaboration with a company to develop a product or start a business". For instance, female university students majoring in dietetics collaborated with a convenience store chain Lawson and successfully developed a healthy bento lunch box. Eating a healthy diet can be viewed as one of the social challenges to be resolved (Kotler, Kartajaya and Setiawan, 2010). The analysis results indicate that the "collaboration with a company to develop a product or start a business" boost the students' level of expectation for entrepreneurship education. Therefore, universities should emphasize offering this format in their entrepreneurship education program. In a practical sense, however, they will be less likely to use this format exclusively. Combining other entrepreneurship classes in a Lecture format with the lecture format would help maximize the students' level of expectation and effectiveness of the entrepreneurship education. We generated two new hypotheses suggesting combinations of the formats and the order.

Hypothesis 4a: The lecture format boosts students' level of expectation for other entrepreneurship classes in a Lecture format (including "implementation of a case study", "development of a business plan", and "RPG")

Hypothesis 4b: The formats of "implementation of a case study", "development of a business plan", and "RPG" boost the students' level of expectation for the Lecture format of "collaboration with a company to develop

a product or start a business".

　Using Hypothesis 4a and 4b as models, we performed covariance structure analysis and presented the result on Figure 11 below.

　The analysis result indicates that all the paths excluding the path from the "RPG" to the "collaboration with a company to develop a product or start a business (shown as Starting Business)" are significant at the 0.1% level (See Figure 8). Specifically, this study can fully support Hypothesis 4a, but not Hypothesis 4b.
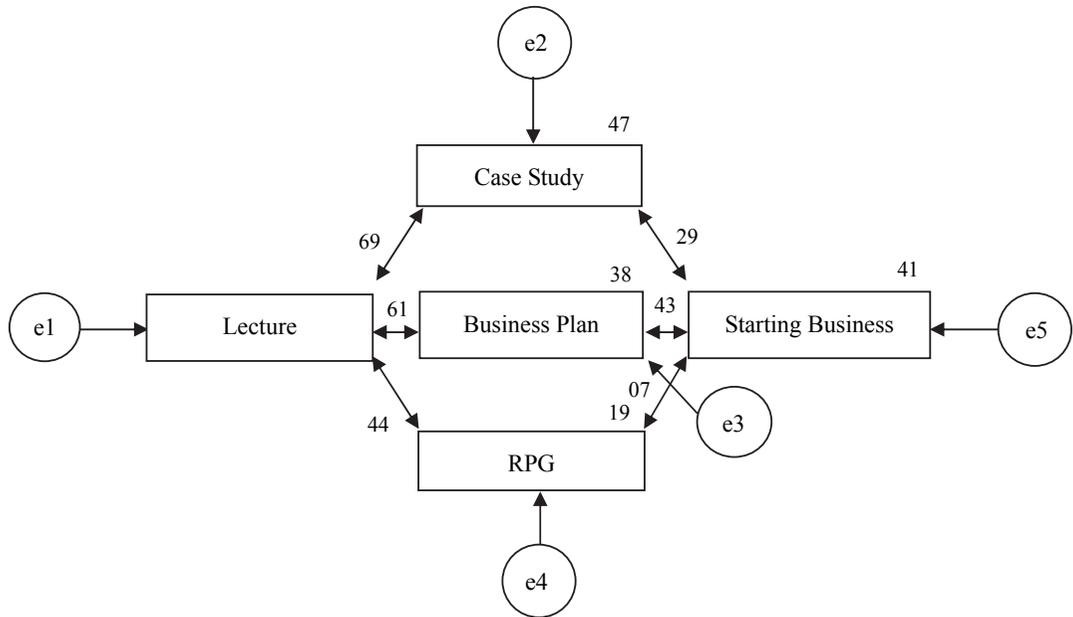
Figure 7: Covariance Structure Analysis

Figure 8: Non-Standardized Estimates and Significance Levels

			Estimate	S.E.	C.R.	P
Case Study	<---	Lecture	.709	.075	9.450	***
Business Plan	<---	Lecture	.651	.084	7.727	***
RPG	<---	Lecture	.466	.095	4.879	***
Starting Business	<---	Case Study	.265	.079	3.339	***
Starting Business	<---	Business Plan	.385	.076	5.051	***
Starting Business	<---	RPG	.062	.073	.847	.397

Estimates of the standardized path coefficient are shown in Figure 11 below.

The determination coefficient R^2 indicating explanatory power is shown in Figure 12 below. The figure reveals that the determination coefficient of the RPG format ($R^2 = 0.194$) has low explanatory power.

The validation results regarding Hypothesis 4a and 4b indicate that offering lectures by college faculties and outside instructors such as venture mangers during the first year when students have little interest, knowledge, or experience in entrepreneurship boosts the level of expectation for the hands-on entrepreneurship classes during the second year, including "implementation of a case study on entrepreneurship and venture management", "development of a business plan", and "RPG". These hands-on classes during the second year would help them enhance entrepreneurial knowledge and ability and boost the level of expectation for the "collaboration with a company to develop a product or start a business" during the third year. This is the model of entrepreneurship education that has been validated based on the discussed analyses [10].

Figure 9: Standardized Estimates

			Estimate
Case Study	<---	Lecture	.689
Business Plan	<---	Lecture	.613
RPG	<---	Lecture	.440
Starting Business	<---	Case Study	.290
Starting Business	<---	Business Plan	.435
Starting Business	<---	RPG	.069

Figure 10: Squared Multiple Correlations (Determination Coefficient: R^2)

			Estimate
Case Study	<---	Lecture	.689
Business Plan	<---	Lecture	.613
RPG	<---	Lecture	.440
Starting Business	<---	Case Study	.290
Starting Business	<---	Business Plan	.435
Starting Business	<---	RPG	.069

4-2 Development of Social Entrepreneurs and Support for Business Deployment

Based on the validation result of Hypothesis 3, the second strategic proposal is presented below.

Strategic Proposal 2: Offer hands-on classes to provide "support for other community/social businesses", then develop social entrepreneurs and provide support for their business deployment.

In supporting other community/social businesses, providing what they demand would turn into business opportunities for the students. In reference to the questionnaire survey conducted by the Ministry of Economy, Trade and Industry (2008), challenges and support needs of social businesses are: (1) improvement of social recognition, (2) funding facilitation, (3) development of social entrepreneurs, (4) support for business deployment, and (5) achievement/improvement of social credibility. The (3) development of social entrepreneurs and (4) support for business deployment are considered feasible in entrepreneurship classes and can be incorporated into entrepreneurship education in universities.

According to the Ministry of Economy, Trade and Industry (2008), lack of funding and time is leading to the lack of quality and quantity of social entrepreneurs and their supporters. Therefore, there is a compelling need for supporting social entrepreneurs by developing human resources thorough entrepreneurship education in universities (Ministry of Economy, Trade and Industry, 2011). However, simply providing a sufficient workforce to social businesses is considered inadequate. This is because social entrepreneurs are expected to possess strong social and business skills and demonstrate a higher level of innovation/management capabilities than other business entrepreneurs (Ministry of Economy, Trade and Industry, 2008). Conversely, lack of these skills and capabilities is causing many social businesses to collapse into bankruptcy. Therefore, entrepreneurship education discussed in this paper would help enhance the students' skills and capabilities needed to support social businesses. As a result, the students will be able to address the needs of social businesses and enhance the effect of collaboration between social businesses and the students.

Next, the support for business deployment in relation to the development of social entrepreneurs is discussed as follows. According to the social business survey (multiple choice questionnaire, $n = 473$) conducted by the Ministry of Economy, Trade and Industry (2008), major challenges in social business deployment are insufficient public relations to consumers/customers (45.7%), lack of management know-how (19.7%), and lack of knowledge and expertise (19.2%). The social business industry is expressing the need for more management knowledge such

as marketing. Specifically, social businesses acknowledge the need for raising consumer awareness of their company, products, and social challenges, but the lack of management knowledge is preventing them from improving the situation. Also, it is likely that new product planning or business operation might not be running smoothly because of problems other than the lack of management knowledge, which were not listed on the questionnaire or acknowledged by the social businesses. It would be advisable to provide social businesses with support for public relations activities and opportunities to plan new products through collaboration, while providing management knowledge and offering advices they need.

Conclusions and Future Challenges

With the objective of enhancing the Japanese university students' level of expectation for their entrepreneurship education, quality issues of the education were broken down into the instructional formats and the content from the perspective of economics and business administration to propose strategies for the education through hands-on classes and social value creation. With regard to the first strategic proposal, this study demonstrated that offering lecture classes by faculties and venture managers to the first-year students would set their expectations for entrepreneurship education and that increasing the number of hands-on entrepreneurship classes

(more hands-on activities) every year would boost the level of expectation for a hands-on class where they engage in "collaboration with a company to develop a product or start a business". The analysis results proved that this format created the highest level of expectation among the students. With created to the second strategic proposal, this paper demonstrated that offering a hands-on class to provide "support for community/social businesses", which creates the second highest level of expectation among the students, would help boost the level of expectation even further. Addition of social entrepreneur development and support for business deployment to their entrepreneurship program would address the needs of social businesses, or in other words, create business opportunities for the education and the students.

Entrepreneurship education in Japanese universities has been predominantly studied through the surveys by think tanks and the Ministry of Economy, Trade and Industry as well as the limited number of academic studies. The approach of this study to examine the education from the unique perspectives of classes in a "Lecture format" and "social value creation" is considered as a contribution to academic research. Moreover, presenting the two new measures of "Lecture format" and "social value creation" in empirical study on the entrepreneurship education in universities is considered as a significant contribution.

Finally, there are three challenges that

need to be addressed in future studies. First of all, the survey conducted for this study mainly targeted students at Tokyo University of Science. It will be necessary to design a survey with sufficient sample size of students at other colleges to enhance the credibility of the survey result. Secondly, with regard to the analysis results (indicating that the level of expectation for the lecture format and the classes in a Lecture format was not significantly different from each other), it is likely that the respondents had difficulty in visualizing specific activities due to the lack of such learning experience. It will be necessary to explain any descriptions that respondents may not be familiar with prior to the survey. Thirdly, the path coefficient in the covariance structure analysis was significant, but the models were evaluated poorly. For this reason, reexamination of the analysis will be necessary. Also, it will be necessary to pay attention to common method bias, which is the variance that is attributable to the measurement method rather than to the constructs the measures present.

Other research themes that need to be studied and examined in the future include internships, external workshops, and differentiation of entrepreneurship education in overseas universities. Also, it will be significant to explore and examine possibilities of entrepreneurship education designed to develop a business mind of business administration students as well as art students who will be entering the competitive art industry or science/engineering students who will be launching technology ventures.

Notes

[1] The Global Entrepreneurship Monitor (GEM) (2013)

[2] Separating social entrepreneurship and volunteer work to measure the percentage of students who want to make a social contribution through social entrepreneurship only would achieve more accurate results. Unfortunately, there was not any survey conducted in this manner. Although this paper referred to this survey (Ministry of Health, Labor and Welfare, 2013), additional surveys are needed to increase the validity.

[3] Website of the Nikkei Biz Academy (Date of access: March, 19, 2015)
http://bizacademy.nikkei.co.jp/feature/article.aspx?id=MMACz2000007012013

[4] Greenology Products, Inc. Website: http://www.green-shieldorganic.com

[5] Website of the Department of Policy Management of Keio University (Date of access: March 2, 2013)
http://www.sfc.keio.ac.jp/pmei/curriculum/faculty.html

[6] Local communities are facing an increasing number of social challenges including environmental protection, care and welfare for the elderly/disabled, parenting support, community development, and sightseeing. Social/community businesses resolve these challenges by cooperating with residents, NPOs, and companies using business methods. (Website of the Ministry of Economy, Trade, and Industry)

[7] Website of the Ministry of Economy, Trade, and Industry (Date of access: March 29, 2016)
http://www.meti.go.jp/policy/local_economy/sbcb/

[8] Oliver, R. L. (1980); Tanaka and Shimizu (2012), pp. 235-238.

[9] Since most responses were collected electronically, there was no missing value or abnormal data.

[10] The validity of this model was acknowledged; however, as one of the basic models, it will be necessary to give it a certain level of flexibility in establishing a curriculum of entrepreneurship education. For instance, first-year students can participate in a third-year students' class where they collaborate with a company to plan a new product or start a business while taking regular lecture classes. This would help boost the students' level of expectation for entrepreneurship education in other formats and increase the effectiveness of the

education.

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