

OPTIMAL COMBINATION OF STUDENTS IN EDUCATION ENTREPRENEURSHIP

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Abstract: *The research purpose is to test the optimal combination that was liked by the university students and the intensity of entrepreneurship training in entrepreneurship subject. Indonesia lacked young entrepreneurs, especially the entrepreneurs of the university graduates, as the strategic tools to overcome the poverty in Indonesia. The gap research was that the appropriate model was not found yet in learning entrepreneurship. This research used Conjoint analysis with the nine combinations of two stages. Indonesian respondents were as much as 100, consisted of 70 females and 30 males. The respondents with the ages of 17-20 years old were as much as 48 and with the ages of 21-30 were as much as 52 as the research samples. Home industry training became the most important factor in the university students' preferences, followed by extracurricular and face to face lecture. The findings of stage 1 were the most preferred training was the home industry and the least preferred was the laundry. The preferred extracurricular was scientific visit and the not preferred was the team project. The most preferred lecture meeting was the face to face one and the least preferred one was the speech. The entrepreneurship application stage 2 became the important factor and the most preferred one was creating the new exertion and the least preferred one was the case study. The most preferred training was the home industry and the least preferred one was the hairstylist one. The most preferred lecture was the speech and the least preferred lecture was the discussion. The contribution for High Education (Pendidikan Tinggi) in learning the entrepreneurship lecture subject, besides the face to face one, it also needed to be completed by the entrepreneurship practice such as creating the new exertion through the home industry or hairstylist industry training. The research theoretical contribution produced the right entrepreneurship education model finding. The training motivated the university students to run private enterprises and change the university graduates to be the job creators.*

Keywords: *Optimal Combination, Students, Education, Entrepreneur*

INTRODUCTION

The unemployment in Indonesia included the university graduates impacted negatively toward social and society stability. That condition was supported by the reality that most university graduates gave more priority to be the job seekers instead

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of job creators. The education system applied in various university in Indonesia at that moment was more focused in preparing the fast graduates, obtaining the jobs without considering how to prepare the graduates who could create jobs. Based on Statistical Body (Badan Statistik) (2012) the unemployment level in Indonesia reached 7,5%. Even the university graduates became more difficult in getting the jobs in accordance with the educational background. It was because the entrepreneurship activity expansion was not much. The competitive capability of the nation and the competitive capability of the regions were determined by the competitive capability of the economy, industry sector, and the efficient and effective exertion activity unit.

The government, exertion world, and university were the most strategic institute to bear the duty in improving the nation's competitive capability. It was the hope that the role of the university world could be the change locomotive to the global competitive capability (Kopertis V, 2012). The Indonesian university students were the pioneers of the nation development. They should be able to grow, create the job fields through the development of the entrepreneurship spirit in university and able to develop the society through the entrepreneurship education activity. It was in accordance with one of the university's mission that was improving the quality and relevance of the high education to fulfil the job field needs and improving the competence ability of the university graduates in Indonesia. Indonesia was the developing country with characteristics of the highness of poverty, unemployment, and economy imbalance rate. They must be solved.

The problem nowadays is how to change the old mindset about the relevance between the education process in university and the needs of the employee's market, to become the new mindset to fulfil the university's capability to produce the job creator graduates. Entrepreneurship based curriculum in graduates' curriculum strata 1 as long as this moment gives the bigger value in teaching theory, as much as 95%. The field real practice is still low, as much as 5% such as trying to sell snack products in the classrooms. This curriculum needs to be developed in accordance with the development need nowadays to produce the graduates that are able to create the job opportunity by practicing the accepted theories and home industry practice training. In producing the graduates, the university had the entrepreneurship based-curriculum. It was the important curriculum to measure the success of the university to create the graduates with the high competitive capability in the job force market.

Each year the inhabitants of USA creates 600 until 800 thousand new entrepreneurs. This mindset becomes the base of the echo once again of the entrepreneurship education in USA. The concept to build entrepreneurship in Indonesia was not an easy matter, because it also depended on the influences of personalities, cultures, norms, traditions, life principals, and social-society view values. The development of the entrepreneurship based-curriculum must be supported by the cooperation with the various sides to improve the graduates' competences, included the curriculum evaluation, implementation, and curriculum development of the

entrepreneurship learning model. *Global Entrepreneurship Monitor*, mentioned that one-third of the economic development was produced through entrepreneurship activity (Mufatto, 2013).

Esa Unggul University data showed the university students who had gotten the entrepreneurship education and intended to be entrepreneurs were as much as 5 %. After graduating, as much as 3% were entrepreneurs (UEU, 2014). So the entrepreneurship education needed to be developed. In addition to the face to face concept, discussions, seminars, bringing the guest lecturers that were the old concept, the home industry and hairstylist skills training needed to be developed. Several reasons above were very reasonable. In relation with the entrepreneurship education in Esa Unggul University, it was important to do the continual research about the university students' preference to study entrepreneurship. Becoming the workers, mainly the civil government employees, was more honorable compared with becoming the entrepreneurs. That philosophy did not occur for the certain ethnics, but becoming the life philosophy of most university graduates.

Nowadays both the university students and the policy makers become aware of the importance of the entrepreneurship education system. The entrepreneurship education has the different short phase and long phase result (Hannon *et al.* 2006). Through the identification of the various entrepreneurship education purpose, the deeper understanding of the education need and the right choice of the evaluations and teaching techniques might be had (Kuratko, 2009; Hindle, 2007). Universitas Esa Unggul started to learn entrepreneurship in 1987. Meanwhile the other private universities did not teach the entrepreneurship subject yet. Rae and Carswell (2001); Shepherd and Douglas (1997) found the difference between the entrepreneurship subject of education and non education. The entrepreneurship success keys were finding the most effective ways to manage the taught skills and identifying the right education difference between the students' needs and teaching techniques (Lee *et al.*, 2007).

Government tried to reduce the number of the educated unemployment by continually developing the positive mindset of the entrepreneurship as the career choice of the university students. The various programs related with entrepreneurship of university students were held so the university graduates had the entrepreneurship capacity in the future. In 2009 Direktorat Jenderal Pendidikan Tinggi developed Program Mahasiswa Wirausaha, that program was the part of the education strategy in university to facilitate the university students in learning the entrepreneurship subject. The tendency of the university graduates as the job seekers rather than the job creators and the number of the job field that could not accommodate the number of the job age group made the happening of the educated unemployment. Badan Pusat Statistik in February 2012 stated that the open unemployment level of Diploma I/II/III education level reached 7,5% and the open unemployment level of the university level reached 6,95% (Badan Statistik, 7 May 2012).

In recent years several researches of entrepreneurship education model of all the world have emerged. It has agreed broadly that entrepreneurship is the economy and society activator machine of the developing countries (Alberti *et al.*, 2004; Azizi, 2009). The entrepreneurship education became more important in the education world at that moment and the entrepreneurship research grew and got the legitimacy from the scientific society and several scholars had focused to study the entrepreneurship education (Jurneli *et al.*, 2011). The success keys of the entrepreneurship education was finding the most effective ways to manage the skills and identifying between the university students' needs and teaching techniques. *Gap research was that firstly the universal teaching ways to teach entrepreneurship and the right teaching techniques to motivate the university students to be the entrepreneurs were not found yet. Secondly the materials and the purposes of entrepreneurship education, and institutional constraints were proposed (Chen and Jones, 2007; Linen et al., 2008).*

Government, exertion world, and university were the most strategic institute to bear the duty to improve the nation competitive capability. The role of the university world was hoped to be able to be the change locomotive toward global competitive capability (Kopertis V, 2012). Based on the things above, the specific purposes of this research is the composed of the right entrepreneurship education model in university, and giving the opportunity toward the university students so directly involved with the job world condition to improve their *soft-skills*, and grow the suffice business spirit both through the theories and the training practices of home industry and hairstylists. The entrepreneurship training can improve the motivation and add the university students' confidence to train themselves so the entrepreneurship spirit can grow.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Entrepreneur Learning

It was proposed that country, society, and individual organization and educational institute got the profits by developing the entrepreneurship students and the individual leadership ability (Hild dan King, 2009). An entrepreneur is someone who brings effort resources, job forces, materials and the other assets, becoming the combination that makes them of greater value (Arasti, *et al.* 2012). Entrepreneurship is the process of creating something new with the value from the needed time and effort devotion, with the assumption of the accompanying financial, mental, and social risks, accepting the rewards produced by financial and personal satisfaction, and the autonomy (Hisrich *et al.*, 2010). The basic purpose of the entrepreneurship leaders is to create an innovation that later can push himself/herself to have entrepreneurship spirit. "Innovation and entrepreneur leadership were complex and challenging, but both can be supported by creating and communicating the relevance vision, motivating and energizing the individuals, improving human and social modal, and developing mindset (Reimers, Hild and King 2009).

The meaning of education is something intentionally managed to make him/her possible to follow the certain behaviors in the specific conditions or produce the response toward the certain situations. The meanings of entrepreneurship are relatively different between the experts with the emphasis that are also different from each other, among others are the creation of the new organization, performing of the new activities' combination. Fayolle *et al.*, (2008) explored the various opportunities, faced the uncertainties, and got together the production factors. Simply the meaning of *entrepreneur* is a brave person to take the risks to open the exertion in the various opportunities. The meaning of brave to take the risks is having the autonomous mental and being brave to start business, without involved by fear or worries although the condition is uncertain.

The entrepreneurship education teaching methods below were according to Lonappan *et al.* 2011. He classified the education methods into these categories: case studies, group discussions, individual presentations, individual written reports, group projects, formal lectures, guest speakers, learnings, seminars, web based-learnings, recorded videos. The research results of Salomon *et al.* (2002) emphasized that the most popular teaching method in the entrepreneurship education model was the creation of business plans, case studies and face to face lecture. Lastly, if the purpose of education is to prepare the individuals to act as entrepreneurs, the most effective technique is by facilitating experiments, by trying entrepreneurship in the controlled environment, such as through the business simulations or roles games (Ahmad *et al.*, 2004).

Most researchers divided the entrepreneurship education method into two groups, those were "traditional method" that consisted of the theory and concept lecture materials meanwhile "inovative method", through the certain skills trainings, each was called as "the passive method" and "the active method" (Mwasalwiba, 2010). Meanwhile Hytti and O'Gorman (2004) mentioned there was the different view because there were many ways to offer the entrepreneurship education, depended on the education purpose. If the education purpose was to improve the understanding of entrepreneurship, so the most effective way to achieve this purpose was by giving information through public channels such as media, seminars, or speeches.

Chen, Weng and Hsu (2010) stated that the university students who had many experiences in developing the various technical skills and trainings were more confident with their ability to become entrepreneurs. Meanwhile Kusminarti (2014) found the research results that the majority of the respondents agreed that the entrepreneurship trainings could improve the knowledge of business opportunity and the involvement in the entrepreneurship class. Instead of giving the respondents the opportunity to learn entrepreneurship, some part of the respondents stated that they agreed enough that following the entrepreneurship lecture could improve the entrepreneurship characteristics and the entrepreneurship seminars improved the business plans

knowledge. Therefore, it is important to develop the entrepreneurship education model to improve the entrepreneurship spirit, compared with the passive method.

Muffatto (2013) explained that entrepreneurship was very important for the development economy. The education system had the role as the key to push the entrepreneurship behaviors, develop the entrepreneurship skills, creativity, and business opportunities that aimed to the young generation. Although many individuals longed to be entrepreneurs, mostly did not have self-confident or skills to change the ambition into action. The former research had tested that the successful entrepreneurs learnt from the most part of informal learning methods such as doing the apprentice activity, observation, and conversation. Nevertheless, face to face formal education system did not have the unique impact on their ways to do the entrepreneurship activities. The employers chose their own sources and learning methods called contingency approach.

In the recent years, the university vision has moved to entrepreneurship education by the purpose to improve young generation and train the new employers. The university has paid attention to the behavior simulations as the entrepreneurship education approach. It tries to simulate the education sources and methods used by the experienced employers. The entrepreneurship education involves all activities with the purpose to push the entrepreneurship of mindset, attitudes, and skills, and involves the various aspects such as ideas, start-up, growth, and innovation (Fayolle, 2009). The entrepreneurship education was started by Shigeru Fijii, who started to teach in the entrepreneurship area in 1938 in Kobe University in Japan. The course of the small business management started to exist in 1940th and in 1947. Myles Mace introduced the first entrepreneurship course in Harvard Business School in USA. Just the more half of century, these phenomena got the more universal acknowledgment (Alberti *et al.*, 2004).

Entrepreneurship was taught through the courses in almost every American institute of College of Business School and accredited in more than 1400 post secondary schools, and enjoyed the enough growth in all the world (Karsson, 2003). In the middle of the continual growth of the university number that offered entrepreneurship program, there was abundant opinion of the matter whether entrepreneurship could be taught or the employers were born and grown through discussion. The purposes of the entrepreneurship program were introducing, testing deeper the different students for the entrepreneurship education (Lonappan *et al.*, 2011). The inside of various entrepreneurship education program were the students with various social-demography characteristics, and various involvement level and aspiration in the entrepreneurship process.

The teaching of entrepreneurship is for the individuals who want to commit very much for their future creations projects, for the professionals and the other practitioners who commit in the entrepreneurship area. Although several lecturers tended to emphasize that, the education was the tool to achieve the purpose. Soon after the

purpose was agreed and the specific obstacles were identified, the right education method could be chosen (Fayolle *et al.*, 2008). Meanwhile on the other hand, the effectiveness of the entrepreneurship education program depended mostly on the lecturers' skills and entrepreneurship education. The entrepreneurship education such as the entrepreneurship training and involvement in the work training could improve the university students' entrepreneurship characteristics. The creativity character was the character that mostly contributed to entrepreneurship.

Bennett (2006) mentioned that they needed the instructors to facilitate learning, not to control and apply the methods for the students to find themselves. Three methods that were mostly used were: speeches, case studies, group discussions. Actually these methods were also used in the other business related with the program, called passive and least effective in influencing entrepreneurship attributes. Fiet (2000a, b) explained that the instructors relied on the lecture methods because they could easily perform, but were not usual like the former groups, included the simulation games, videos, guest speakers, business plans' makings, project jobs. They used games and competitions, arranged the small business exertions, workshops, presentations, and study visits. The second category of this method was called "active" method and more appropriate to be used to take care the entrepreneurship attributes among the students (Mwasalwiba, 2010).

The university students who wanted to be entrepreneurs and started business with the knowledge basic were mentioned by Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan Nasional, (2010). The program involved the entrepreneurship education and trainings, apprenticeship, business plans' arrangement, capital and work assistance support. The implementation of the Entrepreneurship University Program (Program Mahasiswa Wirausaha) must be integrated with the entrepreneurship education in university. The entrepreneurship programs had been implemented and developed by the university through entrepreneurship subject by implementing the general lectures, seminars, and business trainings.

The lecturers' main task was to give the theoretical knowledge of entrepreneurship and business plans, to instruct the students to find and test the business ideas, and value the business opportunities, and to consult the group works and write the business plans. The students must realize the importance of preparing the business plans, getting the illustration of the business plans' structures and preparation process, and getting some trainings in writing the business plans based on their own business ideas. The knowledge of how to apply the business ideas, business plans' experience and information of the company establishment process must motivate the students to think of their own business arrangement and as the result there were more of them who were entrepreneurs (Venesaar, 2008).

A business plan can be defined as a written document that describes the nowadays and future situations that require an organization. Preparing the business plans, producing formality and certainty aura were often needed before the individuals'

creation of the new business would be taken seriously. A plan was written well and briefly, but comprehensive and needed many decisions of all new business creation aspects, from the opportunity exploitation to collect the resources and build the top management team. Building the business plans that are certain needs the deep understanding of the products, competitions, business models, and prospective financial model. But, the business understanding is not enough: the business plans must also be persuasive (White *et al.*, 2010). The effective method to teach the skills related with writing business plans can be achieved through the process of translating the academical researches in educating and it may be useful in the entrepreneurship classes.

METHODS

Research Design and Respondents

Learning entrepreneurship before the researches, the university students must follow face to face teaching in classes, discussions, seminars, and meet the business experienced-guests. In the reality that way is lack in motivating the university students to be the entrepreneurs. So the researcher wanted to test the right model in learning the entrepreneurship subject. Of course the university students had different opinions in learning entrepreneurship, but the data of the university showed that of 500 university students who followed the entrepreneurship lectures, there were only 5% who wanted to be entrepreneurs and who were really interested to be entrepreneurs were about 3%. So the researcher wanted to test the rightest model in learning entrepreneurship.

The determination of the importance level of the university students toward each way used in learning entrepreneurship was very determined by the university students' preferences based on the university students' knowledge of the entrepreneurship subject. The university students' preferences would be analyzed with *conjoint analysis* approach. *Conjoint* model was used to determine the domination of each combination chosen by the university students. This research used the nine combinations of the ways how to learn entrepreneurship. The nine attributes influenced the university students' preferences in choosing the learning model. Then of the university students' preferences formed an optimal combination.

At the first stage the respondents were asked to choose the hairstylist training, laundry, and home industry to choose the optimal combination through the three dimensions, those were the lecture meetings, trainings, and extracurricular. The indicators of the lecture meeting were face to face, discussions, and speeches. The indicators of the training were hairstylist industry, laundry, and home industry. Meanwhile extracurricular consisted of seminars, group projects, and scientific visits. The second stage in one dimension was through the lecture meetings, trainings, and

entrepreneurship application. The lecture meeting consisted of face to face, discussions, and speeches. The trainings consisted of the hairstylist, laundry, and home industry. Meanwhile the entrepreneurship application consisted of creating the new business, solving the problems, and case studies.

Research Hypothesis and the Relation between Variables

The findings of Kusminarti (2014) showed the trainings influenced significantly toward the university students' autonomy in entrepreneurship. Meanwhile the findings of Setyawan (2014) showed the entrepreneurship knowledge influenced directly toward the university students' intention to be entrepreneurs. Rahadi and Zainal (2014) mentioned that the entrepreneurship learning model used at that moment was still theoretical with the character of *teacher centered learning* so the achieved learning objectives were just only the cognitive aspect, meanwhile the affective and psychomotor aspects were not achieved yet. Because of that problems, the entrepreneurship learning model must be adapted and has the character of *student centered learning*, that is the entrepreneurship learning model based on portfolio in which this learning model uses the active university students' approach, multi teaching methods, and multi learning sources. The research hypotheses are as follows:

Hypothesis 1

It is assumed there is difference of the university students' relative self-interest level toward the university students' preferences' attributes in learning the entrepreneurship subject those are the lecture meetings, entrepreneurship trainings, extracurricular, and entrepreneurship applications.

Hypothesis 2

It is assumed the combination of the main preferences that influences the university students to choose the optimal combination in the entrepreneurship subject can be determined based on the highest and dominant utility for each attributes' level.

RESEARCH DESIGN

This research has been composed of five parts. First, the literature review of the entrepreneurship education. Special in teaching methods in the entrepreneurship education and the teaching methods, they are presented in the second part. The third part explains the research methods. The results will be presented in the fourth part. Finally, concluding with discussions of the research results and the future research. The research design is the framework used to do research. The design used in this research this time is the casual study, that is to know the influence between variables in which the purpose of the study is to give the illustration of the entrepreneurship learning model that is mostly preferred by the university students. The expected finding

is an illustration of the relevance aspects with the phenomenon in liking the entrepreneurship education kind. This research purpose is to know the university students' preference toward the optimal combination of the entrepreneurship subject education.

Operational Definition and Variables Measurement

Ruswanti, *et al.* (2014) described that the research findings consisted of 164 university students respondents with 13 kinds of way about how to learn the entrepreneurship subject adopted from Lonappan *et al.* (2011). The university students' choices were showed based on the preferred order in learning the entrepreneurship subject. Order

1. The guidance to plan the projects
2. Create the new business
3. Case studies
4. Problem solving
5. home industry and hairstylist industry trainings
6. Group discussion
7. Scientific visits
8. Guest speakers
9. Roles games
10. Seminars
11. Group projects
12. Interview with the employers
13. individual projects.

Some variables operational definitions in this research are as follows: the university students' preference in choosing the optimal combination model had the combination 1 until 9. That combination was the choice regarded by university students as having superiority compared with the other offered choice or as the university students' preference level in learning entrepreneurship based on the existed attributes.

Data and Sample Collection Techniques

The sample collection technique in this research used *Non-probability sampling* that is the sampling with population unit that do not have the same opportunity to be chosen as sample. The research sample in Indonesia was *non-probability sampling* with purposive *sampling*, that is the used sample in research that has the certain consideration, that is the university students who have followed the marketing

management subject. This research population was all university students who had followed the marketing management subject, those were the economic university students. The sample as much as 100 respondents was suffice enough according to Hair *et al.* (1996).

The data collection technique in this research used questionnaire that was the data collection technique by giving the sets of the closed statement to the respondents to be circled in accordance with the university students' preferences. Questionnaire is the data collection technique that is efficient if the researcher knows exactly the variables that will be measured and know what can be expected from the respondents. Besides, questionnaire is also suitable to use if there are enough many respondents and spread in the broadly area. Questionnaire can be in the form of the closed statements giving to the respondents directly. The data collection of this research consists of the primary data, that is the data gotten directly from the university students through questionnaire, and the secondary data, that is the data of the university students who have followed the entrepreneurship lecture subject. The university students who wanted to be entrepreneurs were just only 3%.

ANALYSIS TOOL

Analysis tool used in this research is *conjoint* analysis. *Conjoint* analysis is the technique who tries to determine the relative important meanings of the important attributes and attributes' levels utilities according to university students. On the other hand *conjoint* analysis was also done to make utilities function that explains the utilities of every attribute level according to university students. The scale used in this research is the likert scale with the interval scale number 1 until 10. The number 10 shows the highest value and number 1 the lowest value. The theory of the preferences of the multi attributes was firstly developed by Lancaster by making an alternative model of multi attributes so a theory was born, called *A New Approach to Consumer Theory*. The university students' demands in learning the entrepreneurship lecture subject can be understood as a set of characters of the products or services, now they are called "attributes". In the latter development the *Conjoint* method has existed, that is a method that according to many researchers are the most practical one to predict the university students' preferences in learning entrepreneurship. This *Conjoint* analysis is based on compositional approach with the respondents, wholly gives values toward a number of optimal combination. The university students' preferences were wholly determined by analysis by paying attention to a set of individual attributes (Sekaran, 2009).

The preferences' model used in this research is *Self Explicated Method* approach. The base of this approach is the relation of inter-dependency on the respondents' observation toward the dependent variable and independent variable. The counted variable value is the dependent variable value of the value given by respondents to the independent variable. This model is almost the same with the regression analysis

and discriminator analysis. In this analysis the university students could directly give the values toward the levels of each dimension and indicator. The wholly utility value is the addition result of the multiplication between the value of the attributes' levels and the attributes' own value. There are two models that uses compositional approach, that is *Two Stage Rating Model* and *The Unweighted Rating Model*. Mathematically, *Two Stage Rating Model* can be notated as follows:

$$U_h = \sum_{i=1}^n W_i U_{ik}^{(h)}$$

In which:

U_h = Total of utilities for alternative h

W_i = Value quality for attribute i

$U_{ik}(h)$ = Rating for k level of attribute related with alternative h

The equation above is said as the rating model of two stages of activities done. First, the giving of the levels' values to each attribute and second, the giving of the values toward the attribute itself. Those two activities were implemented separately, therefore this approach is called *self explicated*. *The Unweighted Rating Model* appears because the important attributes often have the small value, so the great bias happens in calculation. Therefore the weight giving as used in *Two Stage Rating Model*, needs to be erased or in the other words the level of an attribute does not need to be given weight again. The other use of this model, it can be used by the object that has the attributes in big number. According to *leigh predictive validity*, this model is higher than *Traditional Conjoint Model with full profile*. But this model has weakness; if several attributes have correlation, the respondents will experience difficulty in giving value toward the level of an attribute.

DATA ANALYSIS

The basic model of *conjoint* analysis is formulated systematically as follows -

$$U(X) = \sum_{i=1}^m \sum_{j=1}^{k_i} a_{ij} x_{ij}$$

In which:

$U(X)$ = the whole utilities of alternative

A_{ij} = the contribution of *part-worth* or the related utilities with the level j ($j = 1, 2$ of attribute i , $i = 1, 2, \dots, m$)

k_i = the number of *level* of attribute i

m = the number of attributes

$x_{ij} = 1$ if level j of attribute; and 0 if an attribute is unimportant (i), stated in the range of *part-worth*.

The *conjoint* analysis principally aims to predict the respondents' opinions pattern, called *estimated part-worth*, then comparing with the respondents' opinions that actually exist in the profile. The results of *conjoint* analysis should not have much different from the real respondents, reflected by the highness of the correlation rate between *estimated* and *actual* results. This is called *predictive accuracy*. The correlation measurement of *conjoint* analysis is used by using the correlation above 0,5, the significance is interpreted ($< 0,05$). It means there is the real correlation between conjoint analysis results and respondents' opinions.

RESEARCH INSTRUMENTS

In this research four attributes were used, those were the lecture meetings, trainings, extracurricular, and entrepreneur application. The four attributes above influenced the university students' preference in choosing the entrepreneurship learning model. Then the university students' preferences formed the optimal combination. The lecture meeting attributes involved face to face, discussion, and speeches. The training attributes were hairstylist, laundry, and home industry. The extracurricular attributes were seminars, scientific visits, and group projects. Then the entrepreneur application

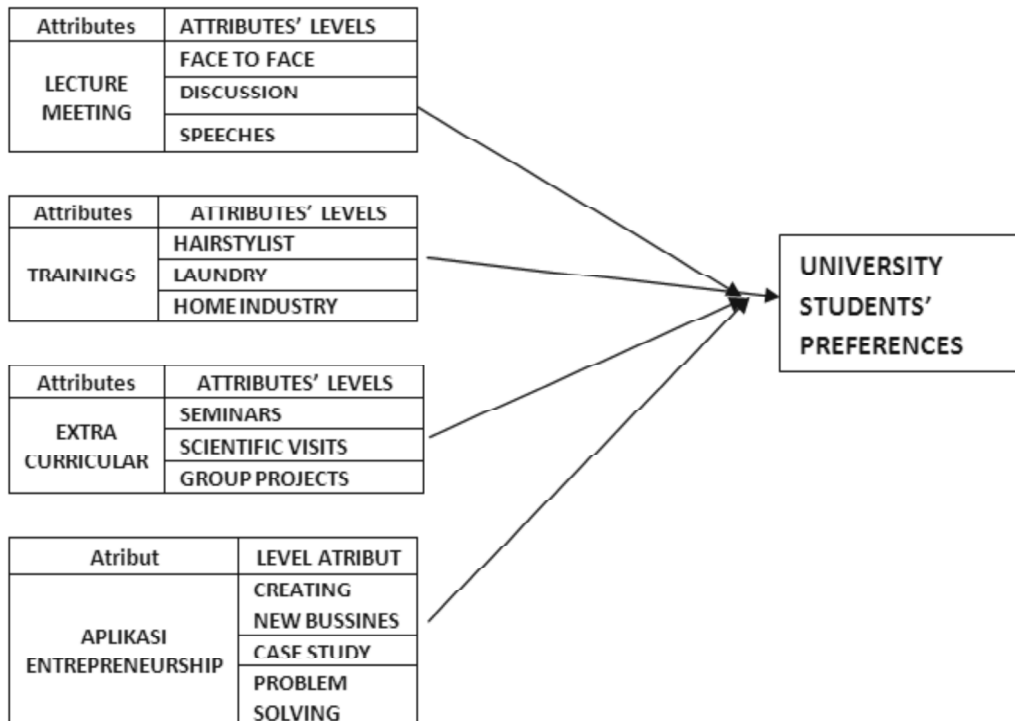


Figure 3.1: Attributes, attributes levels and preferences mahasiswa

attributes were creating the new business, case studies, and problem solving. Before the questionnaire was distributed to the respondents, the hairstylist and home industry process were played through the video (the training picture is attached).

But this research restricted the attributes into four because of several considerations. First, if the attributes used were too many, it would make the respondents had little difficulty in determining and valuing the optimal combination profile of university students' preferences. Second, the result study one (1) shows the university students' preferences in learning the entrepreneurship lecture subject. There were 13 according to the sequence of the preferences, those were face to face, discussions, speeches, hairstylist, laundry, home industry, seminars, scientific visits, group projects, creating the new business, case studies, and problem solving. Third, the above attributes can represent the university students' preferences in learning entrepreneurship. The knowledge of the university students' preferences attributes in following the entrepreneurship lecture subject is needed by the university very much to make the right model in learning entrepreneurship to give motivation and trust to become the entrepreneurs of the university graduates (see Table 3.2).

The explanation of Figure 3.1 based on study one (1) shows the university students' preferences in learning the entrepreneurship lecture subject. There are 13 preferences, but the preferences that are taken are 12 according to the university students' preferences in learning the entrepreneurship, those are face to face, discussions, speeches, hairstylist, laundry, home industry, seminars, scientific visits, group projects, creating the new business, case studies, and problem solving. The first attributes are the lecture meeting in the classroom, consist of face to face, discussions, speeches. The second attributes of the training consist of hairstylist, laundry, and home industry. The third attribute is the extracurricular, consists of seminars, scientific visits, and group projects. Attribute one (1), two, and three as the attributes' level combination stage one (see Table 3.1). Meanwhile the attributes' level combination stage two (2) consists of the lecture meeting attribute, training attribute, and entrepreneurship application attribute with the attributes' level of creating the new business, case studies, and problem solving (see Table 3.2).

The nine attributes' levels combinations stage 1 are given rating from scale 1 = the most disliked until scale 10 = the most liked, then valued by the university students who took the entrepreneurship lecture subject.

The nine attributes' levels combinations stage 2 are given rating from scale 1 = the most disliked until scale 10 = the most liked, then valued by the university students who followed the entrepreneurship lecture subject.

Table 3.1
Attributes' combination level (stage 1)

<i>Combinations</i>	<i>Lecture meetings</i>	<i>Trainings</i>	<i>Extracurricular</i>
1	Face to face	Hairstylist	Seminar
2	Face to face	Laundry	Group Project
3	Face to face	Home Industry	Scientific Visit
4	Discussion	Hairstylist	Scientific Visit
5	Discussion	Laundry	Seminar
6	Discussion	Home Industry	Group Project
7	Speech	Hairstylist	Group Project
8	Speech	Laundry	Scientific Visit
9	Speech	Home Industry	Seminar

Table 3.2
Attributes' Levels Combination (Stage 2)

<i>Combinations</i>	<i>Lecture meetings</i>	<i>Trainings</i>	<i>Extracurricular</i>
1	Face to face	Hairstylist	Creating the new business
2	Face to face	Laundry	Problem solving
3	Face to face	Home industry	Case study
4	Discussion	Hairstylist	Case study
5	Discussion	Laundry	Creating the new business
6	Discussion	Home industry	Problem solving
7	Speech	Hairstylist	Problem solving
8	Speech	Laundry	Case Study
9	Speech	Home Industry	Creating the New Business

ANALYSIS RESULTS

In hypothesis 1 proposed, it is assumed there is the difference of relative self-interest levels of university students toward university students' preferences' attributes in learning the entrepreneurship lecture subject that consisted of lecture meetings, entrepreneurship trainings, extracurricular, and entrepreneur applications. So Hypothesis 1 that is supported by Conjoint analysis can be seen in Table 3.3 and table 3.4 that shows that the importance value of the entrepreneurship trainings dominates.

It means the trainings become the most important factor in these university students' preferences because the importance value is 40.227, followed by extracurricular 31.288 and lectures 28.485. For the utility's values (1) the lecture meeting consisted of 3 offered choices, the most liked was face to face (0.200), and the most disliked was speeches (-0,223). (2) for the trainings, the most liked was home industry (0.573), and the most disliked was laundry (-0.623). (3) for extracurricular, the most liked was the scientific visits (0.250), and the most disliked was the group projects (-0.63).

Tabel 3.3
Importance values

Lectures	28.485
Trainings	40.227
Extracurricular	31.288
Averaged Importance	
Hypothesis 1 Significance	

Tabel 3.4
Correlations^a

	Value	Sig.
Pearson's R	.971	.000
Kendall's tau	.889	.000

Correlations between observed and estimated preferences

It was found that the importance value of the trainings dominated. It means the entrepreneur application became the most important factor in the university students' preferences, the importance value is 35.493, followed by trainings 33.548 and lectures 30.959. In hypothesis 2 proposed, it is assumed the main preferences' combination that influenced the university students in choosing the optimal combination in the entrepreneurship lecture subject can be determined based on the highest and dominant utility for each attribute level. So hypothesis 2 supported by Conjoint analysis can be seen in table 3.5 and table 3.6. They shows that the results of utility value (1) For the lecture meetings there were 3 offered choices; the most liked was speech (0.560), and the most disliked was discussion (-0,376). (2) The most liked training was home industry (0.136), and the most disliked was hairstylist training (-0.86). (3) The most liked entrepreneurship application was creating the new business (0.476), and the most disliked was case study (-0.366).

Table 3.5
Importance Values

Lectures	30.959
Trainings	33.548
Entrepreneur application	35.493
Averaged Importance Score	

Table 3.6
Correlations^a

	Value	Sig.
Pearson's R	.959	.000
Kendall's tau	.833	.001

Correlations between observed and estimated preferences

CONCLUSIONS AND RECOMENDATIONS

This research used Conjoint analysis with 9 combinations in two stages. Home industry trainings became the most important factor in university students' preferences, followed by extracurricular and face to face lectures. The results of the analysis stage 1 show the trainings became the most important factors in university students' preferences, followed by extracurricular and lectures. The most liked training was home industry and the most disliked was laundry. Home industry training such as making tape cakes, lempur needed the small capital, easier to do and could be sold in the classroom everyday. The liked extracurricular were the scientific visits and the disliked ones were the group projects. The most liked lecture meetings were the face to face one and the most disliked were speeches. In the importance value of stage 2, entrepreneur application became the important factor, and the most liked was creating the new business and the most disliked were the case studies. The most liked training was home industry, the disliked was hairstylist one. The liked lecture was speech and the disliked was discussion. These findings support Kristiani, (2014) and Lee et al, (2007)'s findings that the keys of successful entrepreneurs are finding the most effective ways to manage the taught skills and identifying the right education differences between the students' needs and education technique with trainings.

Recommendations for the leaders of university, hopefully the entrepreneurship lecture subject can be the base of university students to have the entrepreneurship spirit and to be motivated to be entrepreneurs, not only in face to face lecture meetings and extracurricular, but also need to be added with the trainings' materials by creating the new business through home industry trainings such as Jajanan Pasar or snack, hairstylist trainings or laundry. University students can follow the trainings in home industry, hairstylist, or laundry laboratory. The research limitation is the sample is not much enough, so it is inappropriate to analyze it using Structural Equation Modelling.

Note

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