An Entrepreneurship Education of Adiwiyata School to Build Student Green Entrepreneur Characters

Ahsan Muzadi1, Agus Hermawan2, Wening Patmi Rahayu3

1 Major of Business and Management Education, State University of Malang
2 Faculty of Economics, State University of Malang
3 Major of Accounting, Faculty of Economics, State University of Malang

Abstract:

In this current global business environment, a lot of companies faced a demand from either government regulation or society to be more conscious and regard to environment. Moreover, going green was a new trend nowadays in the business world. In Indonesia, Adiwiyata Program has been initiated by Ministry of Environment and Ministry of Education which aimed to develop environmental-based education.

The objective of this research was to identify the concept of entrepreneurship education of Adiwiyata School in order to build character of green entrepreneurship on the students. Next, to identify the implementation of entrepreneurship education of Adiwiyata School in order to build the student green entrepreneur character. Further, to clarify the impacts of entrepreneurship education of Adiwiyata School in order to build the student green entrepreneur character. The concept of entrepreneurship education which has been implemented by Adiwiyata School in Malang combined between entrepreneurship education and environmental education. The implementation of entrepreneurship education of Adiwiyata School in Malang was more oriented to the process of student learning and student familiarization to entrepreneurship behavior and to behave as individuals who care about the environment. The result of learning could be the student’s provision in the future as reliable entrepreneur and keep maintaining the surrounding environment including to social environment. The impact of entrepreneurship education found by Adiwiyata School Malang that it could realize the school’s vision and mission. In addition, the school environment could be persistently in cleanliness, student activeness and creativity in entrepreneurial aspects, and for surrounding environment. The conclusion from this research indicated that the school which has implemented Adiwiyata concept also implemented green entrepreneurship education.

Keywords: Green Entrepreneur, Adiwiyata, Entrepreneurship Education

1. Introduction

For the last two decades, a change of environmental decline has been occurred rapidly and estimated at around 300 million tons of plastic are produced every year. Recently, it is recorded approximately 150 million tons of plastic in the world ocean. This number will increase around 250 million more if the trend of urbanization, production, and consumption continue. A report from World Economic Forum and Ellen MacArthur Foundation have estimated that in the next 2050, it will be more plastic wastes than fishes (Croston, 2009).

There are many cases of environmental pollution that happen because of economic activities. According to KLHK’s statistics (2016), the amount of hazardous and toxic waste materials have been derived from industrial activities, hospital, household, agriculture, mining, and plantation in about 25,540,828 tons in 2015 and 78,365,002 tons in 2016.

In this recent global business environment, many companies face demands from either government regulation or society to be more attentive to the environment. Besides, going green becomes one of new trends in business world. Thus nowadays, there are a number of companies which compete to be green business that aims to win the competition and create a good image in society’s mind. Clem (2008) has asserted that going green reflects a social awareness which functions to maintain natural resources, conserve and preserve it for the sake of human civilization. Hence, the customers now are becoming more aware to the environmental issues.

Therefore, the companies nowadays are demanded to increase awareness and sensitivity toward the environmental issues which can be performed by changing the business function to be more eco-friendly.

Kirby (2004) & Hamidi, et al. (2008) have said that the educational institution takes a role to develop entrepreneurship. It should be an awareness that the small enterprise also have opportunity to provide employment through the increase of individual responsibility.
In Indonesia, Adiwiyata Program has been initiated by the Ministry of Environment and Ministry of Education which aims to develop environmental-based education. The purpose of Adiwiyata Program is to realize the responsible school populations as a protection and maintenance attempt of natural environment through good school management which aims to support a sustainable development.

2. Literature Reviews

2.1 Entrepreneurship Education

The concept of entrepreneurship education has been firstly appeared in United States of America in 1947, at that period of time, an academician named Myles Mace has developed an entrepreneurship course at Harvard Business School (Linnan, et al., 2016). After approximately 70 years of development, the entrepreneurship education just get recognized as one of disciplines and developed around the world. Leher & Greene (2011) have relied that the entrepreneurship education has a great potential to deliver in-depth understanding rather than other concepts of entrepreneurship, because it needs to both action and practice.

According to Katz (2003) in (Song Lin, 2016), the entrepreneurship education is contained of several aspects as: development of curriculum, fundamental element, and text publication. On the aspect of curriculum development, it requires to special design. For the aspect of basic element development, it is related to an absolute growth and financial infrastructure improvement on business school. The development of publication is proven by the increase of textbook and general book availability according to the topics which aims to develop academic achievement in field of entrepreneurship study. Those three aspects are the main key of entrepreneurship education development. The entrepreneurship education is expected to be a plus value for the students which is related to its role in their life. The plus value in life is most important aspect, since in every life activity, we may be faced to tasks and responsibilities. Each task and responsibility aims to solve problems that appear and evolve in our life.

According to Fayolle (2003), he has stated that an educator must be concentrated to create and strengthen entrepreneurship intention for the students. This way will make an entrepreneur to have knowledge, desirability, and self-trust or feasibility.

The objectives that can be achieved through entrepreneurship education are mentioned in following details: 1) to acquire knowledge germane to entrepreneurship, 2) to acquire skills in the use of techniques, in the analysis of business situations and in the synthesis of action plans, 3) to identify and stimulate entrepreneurial drive, talent, and skill, 4) to undo the risk-adverse bias of many analytical techniques, 5) to develop empathy and support the unique aspects of entrepreneurship, 6) to revise the attitudes toward change, 7) to encourage new start-ups and other entrepreneurial ventures, 8) to stimulate the affective socialization element (Alberti, et al., 2004).

Basically, the entrepreneurship education is to create innovation creativity. The entrepreneurship education aims to educate or train the students to do changes through a systematic work process. The work process is referred to connect to relevant concepts, explore the impact, realize the convergent thinking or way of thinking differently, organize the system, and apply standard and ethics.

The entrepreneurship in educational field means that the individual should integrate personality, opportunity, financial, and resources in surrounding environment in order to gain benefit that is used to succeed educational objectives. This personality includes to knowledge, skill, attitude and behavior. The entrepreneurship character for educational personnel as principal or manager, expert staff, teacher, and other employees which is indicated by running the business through capital use and entrepreneurial character development contains risks.

2.2 Adiwiyata School

The environmental education is an educational program which aims to educate the students to have rational understanding, awareness, attitude, and behavior and responsibility to the nature and realize sustainable development through school program which is usually named as Adiwiyata Program. According to the regulation of Ministry of Environment of Republic Indonesia 5th 2013 about the Guidelines of Adiwiyata Program Implementation, Adiwiyata School is referred to a school that cares and has an environmental culture (Kania, 2017: 143).

Adiwiyata is a program which implemented in the educational field to increase awareness toward the significance of environmental preservation. A variety of sciences and norms are easier to learn and practice in the educational field. Therefore, Adiwiyata is practiced in the educational field. In the regulation of Ministry of Environment of Republic Indonesia on 1st article 1st paragraph 5th, 2013 about The Guideline of Adiwiyata Program Implementation has been explained that Adiwiyata School is a school which cares and has the environmental culture. In the Regulation of Ministry of Environment of Republic Indonesia on 1st article 2nd paragraph 5th, 2013 about the Guideline of Adiwiyata Program Implementation has stated that the program of Adiwiyata is a program which aims to actualize a
school that cares and has an environmental culture (Regulation of Ministry of Environment, 2013).

Adiwiyata has defined as a good and ideal place where all kinds of science and norms and ethics can be derived and be human basis to create life welfare and achieve aim of sustainable development. The purpose of this Adiwiyata Program is to actualize the school population to be responsible in environmental protection and maintenance attempt through a good school management which aims to support the sustainable development (Adiwiyata Guidelines Book, 2012: 3).

To achieve the purpose of Adiwiyata program, there are four components of program which can be one whole unity to actualize Adiwiyata School. Those four components are environmental insight policy, environmental-based curriculum implementation, participative-based environmental activity, and eco-friendly supporting facility management (Adiwiyata Guidelines Book, 2012: 4).

2.3 Green Entrepreneur

The conventional entrepreneurship practice generally tends to regard only on economic factor which take the financial risks. However, at the level of awareness to the significance of life continuity maintenance, with a basis that the attempts to meet the current needs should not injure the competence of next generation to fulfill the needs. The concept of green economy is built as a basis for the development of concept which focuses on welfare that is concerned to the balance on aspects of economic, environment, and society in entrepreneurship, or it is termed as green entrepreneurship. As well as the concern for the environment with reduce – reuse – recycle – repair practices which offer the business idea with green concept. Generally, who become the practitioner is small and medium enterprises, as it has been proposed by Yaacob (2010) that the recycling business is done by small and medium enterprises. The green principles that have been practiced has not fully met the green principles yet, since the demand level of plastic waste processed product is still little. Even though the impact of plastic damage on the environment is much higher than canned, paper, electronic, accu, and iron products.

Pachaly (2012) has said that the green entrepreneurship notices on individual and organizational aspects that are involved in entrepreneurship activity which delivers benefit for the environment by offering green products. The concept of green entrepreneurship is presented on the following figure below:

![Figure 1: Green Entrepreneurship Model](image)

According to Hernandez, et al. (2010), the approach to entrepreneurship can be done from several perspectives, depending on the context, as long as there is no content irrelevancy. Especially, on the category of developing country which needs the entrepreneurship practice to play role in development activity and macro-economic advance, including to non-economic contexts as on Muslim countries, which the green principle is close enough to the sharia economic values in terms of achievement that want to achieve, for instance welfare for the society, environment, and economy. It is the same with the context of family business (Kellermanns, et al., 2008).

3. Research Design and Methodology

Regarding to the aspect of research place, this research was categorized into a field research which attempted to investigate or conduct an observational study. According to Kenneth D. Bailey (1994: 254), the term of field study was the term that was often used in conjunction with the term of ethnography study. Neuman (2003: 363) has also explained that the filed study was also frequently called as ethnography or participant observation research. However, according to Neuman, the term of ethnography was only an expansion from the field study or research. The ethnography was referred to redefine how the field research should be done. Singleton (1988: 308) has said that the field research was derived from two related traditions as anthropology and sociology, which the ethnography was anthropology study and ethnomethodology was sociology study. Moreover, the ethnography offered the answer to question whether the culture of an individual group, while the ethnomethodology provided answer to how the people understand their daily activity, so they could behave in socially acceptable way.

The efforts that must be done in a research were to arrange and detail the plan of research implementation. The first step was research preparation, the second were discussion and data analysis step, and the third was writing step of research report. In this research, the researcher was the key instrument of data collection. Moleong...
(2012: 6) has clarified that the presence of researcher was absolutely needed, since during the data collection in the field, the researcher should participate on research site and follow actively within activities in the field.

The data which would be collected by the researcher from research location was the explanation data, not numerical data. The data that would be collected by the researcher including to the data of entrepreneurship education, Adiwiyata program education, and a number of activities that were related to entrepreneurship and environment at SMAN 2 Kota Malang and SMAN 7 Kota Malang.

4. Research Analysis And Result

4.1 Data Collection Procedures

The techniques of data collection that would be used by the researcher in this research were 3 three types, as interview, observation, and documentation techniques.

The interview was a process of interaction between the researcher and informant in order to gain certain data or information. Yin (2014: 108) has stated that a very important source of case information was the interview. According to Rangkuti (2015: 39), in-depth interview was referred to a direct interview to the respondent. It was aimed to identify and reveal hidden information about the respondent.

The type of interview that would be exerted by the researchers was in-depth interview, it was because the informants who would be the data source were the villagers that needed special attention during the interview. The researchers would come to the informants one by one who were selected as the data source to be asked by the researchers relating to this research focus. To ease the role, the researchers would make an interview guideline. The interview guideline was a sheet of reference that contained of questions which were related to the research focus.

The stages of in-depth interview that would be done by the research: to determine the respondent of interview, to prepare the main problems that would be a discussion topic, to start and open the interview flow, to carry on the interview flow, to confirm the outline of interview result and end it, and write the interview result into a field record, and to identify the follow-up action of interview result.

The observation was a technique of data collection by observing or monitoring particular activity that occurred in the field or location. The type of observation that would be performed by the researchers was participative observation, which the researcher would not only look around to the research location, but the researchers would also participate actively in a number of school activities.

While, to ease the researchers during observation, the researcher would make an observation guideline that was related to the research focus.

The documentation was a field note of past events and this technique of data collection exerted some tools as camera and video recorder. The documents were in forms of picture, writing, or monumental work. Bogdan & Biklen (1982: 21), the field note was a written recording about what have been heard, seen, experienced, and thought in order to collect the data and data reflection within qualitative research. This definition illustrated the significance of field note which was functioned to ease the researchers during arrangement of research result report in the field.

4.2 Analisis Data

The data analysis was a process to search and arrange the data that have been collected from the result of interview, observation, and documentation systematically, then it could be easily understood and the finding could be informed to either the readers or other researchers. The model of data analysis which would be used by the researcher in this research was interactive model data analysis from Miles and Huberman. According to Miles & Huberman (1984: 23), this data analysis was comprised of activities of data collection, data reduction, data display, and data verification. To put in a simple explanation, it could be seen on this following chart:

![Data Analysis Technique of Miles and Hubberman’s Interactive Model](image)

In detail, the techniques of data analysis that the researchers used in this research would be explained below:

1. Data collection, the researchers would prepare the data that have been collected from the result of interview, observation, and documentation. The interview was conducted with related informants, the observation was done at the location of research object, and the documentation was the research evidence.

2. Data reduction, the researchers would reduce or simplify the data by re-selecting and re-sorting up the
data, which one was proper to use for the research focus and which one was not, the data was initially in form of interview result note that would be simplified by the researchers in the form of easy-to-understand points.

(3) Data display, the researchers would present the data according to the structure of research focus.

(4) Data verification, the researchers would verify the data (drawing a conclusion), to summarize that the data which have been presented were the real data that would be used in the next steps and could be accounted for its validity.

4.3 Data Validity Testing

Moleong (2012: 330) has argued that to acquire the validity of finding, it should be examined its credibility by exerting triangulation technique. The triangulation was a technique of data validity testing which made use of other aspects other than the data for the checking need or data comparison.

The type of triangulation employed in this research was triangulation of data source and data collection method. The researchers would re-compare and re-check the trust degree of an information that were collected through different time and instrument in the qualitative method. Thus, the comparison used in this research was the observation on research focus to the interview with related informants.

5. Discussion

The entrepreneurship education with environmental concept was a conscious action which concerned to the activity of entrepreneurship learning and its integration to surrounding environment. The entrepreneurship education in school that has been predicated as Adiwiyata would certainly benefit the surrounding environment as study material or source. It started from the school vision and mission, the school would add the environmental element in it. Pachaly (2012) has stated that the green entrepreneurship observed individual and organizational aspects that were involved in the entrepreneurship activity which could create benefit for environment and offer green products. In this research, the concept of entrepreneurship education of Adiwiyata School by SMAN 2 Kota Malang and SMAN 7 Kota Malang have equally applied the concept of entrepreneurship education that was combined to environmental education. However, both two schools in their practice have their own methods which were adjusted to the school condition and need.

Pachaly (2012) has defined that the concept of green entrepreneurship has three concerns: Economic Concern, Organizational Concern, and Public Concern. Based on the result of interview with research informants (Headmaster of SMAN 2 Kota Malang and Headmaster of SMAN 7 Kota Malang), the concept of entrepreneurship education that was implemented in the school has been oriented to the school environment, school population, and surrounding environment. For the practice of entrepreneurship education, the students of those two schools have been taught and educated about how to be the entrepreneurs who could keep maintaining the environment as an identity of Adiwiyata School. Thus, it could be concluded that SMAN 7 Kota Malang and SMAN 2 Kota Malang have educated the students to be the entrepreneurs who could keep concerning to surrounding environment, since they have already got used every day to the activities during adiwiyata or entrepreneurship practice.

To implement the entrepreneurship education, this research found that both SMAN 2 Kota Malang and SMAN 7 Kota Malang could not be separated from the role of teacher in the learning process to the students. In this context, the teacher would emphasize on how to give example and also briefing which was related to entrepreneurship values that should be embedded on the students by integrating those values into the process of learning.

The subject of entrepreneurship at SMAN 2 Kota Malang focused on the student provision about the skill to be an entrepreneur who would benefit the environment. SMAN 2 Kota Malang has several routine activities that were related to green entrepreneur, for example: SMANDA Darling, Eco Techno park Event, Green Entrepreneurship Content in youtube channel, healthy canteen, extracurricular of handover crafting, and making a pot from coconut husk. From those activities, they were in accordance with the concept of green economy. According to Yacoob (2010), the concept of green economy was established as a base for the development of concept which focused on welfare that concerning to the balance on aspects of economy, environment, and society in the entrepreneurship, or it was termed as green entrepreneurship. It was similar to the environmental concern with reduce – reuse – recycle - repair practices which offered business idea with a green concept.

While, at SMAN 7 Kota Malang, the implementation was focused on the student habituation to be entrepreneurs who did not ignore to the environment, from the aspects of economy, environmental conservation, and benefit for society around the school. The activity of entrepreneurship learning that has been practiced at SMAN 7 Kota Malang included to green fashion parade, green bazaar, processed food from breadfruit, compost making, mini zoo, waste bank program, social media content, and learning with local residents. Those activities were form of practice from the
entrepreneurship subject that was aimed to familiarize the students to behave as entrepreneurs who could pay attention to social environment around the school and concern on environmental aspects. Further, SMAN 7 Kota Malang also attempted to habituate the students with activities that were related to environment, so it could build green entrepreneur character on the students. Jogiyanto (2007) has mentioned that the overt behavior was referred to real behavior or attitude performed by the individual as a human, which could be in form of common behavior or uncommon behavior, acceptable of unacceptable according to the social norms in our society.

According to Vargas Hernandez (2010), he has explained that the practice of conventional entrepreneurship commonly tended to regard only on economic factor that took over the financial risks. But, it was at the level of awareness to the need of maintenance on life continuity, with the base of attempts to fulfill the need, and not injure the competence of next generation to fulfill the need. This was in accordance with what have been performed by this research objects, SMAN 2 Kota Malang and SMAN 7 Kota Malang to supply the students to maintain continuity of human life in the future by preserving environmental sustainability since now.

Pusat Kurikulum Balitbang Kemendiknas (2010) has stated that the entrepreneurship education was basically aimed to create innovation creativity. The entrepreneurship education was aimed to educate the students to do changes with a systematic work process. The entrepreneurship in educational field was referred to combine between personality, opportunity, financial, and resource in surrounding environment in order to take advantages that could be used to succeed educational purposes. Moreover, the concept of environmental-based entrepreneurship education could give a great impact to the school population behavior from their clean living habit and also about the activities to supply the students on an importance of entrepreneurship learning while keep maintaining the environment. In this research, the impact that felt by SMAN 2 Kota Malang and SMAN 7 Kota Malang was different result, since the concept and focus of learning orientation were different.

The researchers found a number of impacts of green entrepreneurship education at SMAN 2 Kota Malang: First, the school environment was more clean and well-maintained. Second, the school has facilities from the student craft results as flower pot. Third, the impact for the students was they could have entrepreneur character and were motivated to be green entrepreneur, who integrated between being the entrepreneur and preserve the environment. Fourth, the impact for the student family environment, the students could be diligent in maintaining the house environment.

Meanwhile, for SMAN 7 Kota Malang, the impacts from entrepreneurship education were: First, the environmental-based entrepreneurship education could help realizing the school vision-mission and purpose. Second, the cleanliness of school environment was well-maintained. Third, for the students, it could build their capability to be entrepreneurs, have entrepreneur character and were motivated to be green entrepreneur, who should combine between entrepreneurship and environmental conservation. Fourth, the impacts for environment from environmental-based entrepreneurship education were the students became more diligent to keep their house environment and the parents felt that their children were more motivated to be the entrepreneurs.

This research also illustrated that the student entrepreneurship behavior was not only oriented on economic aspect, but was also oriented on environment, so it could be persistently benefitted in the future. Loewenstein (2000) has asserted that the economic behavior was consisted of four categories as: 1) inter-temporal consumption and savings, 2) work orientation, 3) investment, entrepreneurship, and risk taking, and 4) education attainment. Regarding to those categories, the two research objects (SMAN 2 Kota Malang and SMAN 7 Kota Malang), firstly, it was more inclined to entrepreneurial investment without risk by maintaining the environmental preservation. Secondly, since this entrepreneurship education was in school environment, thus, the educational aspect was more prioritized than the economic aspect.

6. Conclusions

Based on the research findings, the researchers could conclude these following research results:

(1) The concept of entrepreneurship education which has been implemented at SMAN 2 Kota Malang and SMAN 7 Kota Malang was combining between entrepreneurship education and environmental education. Since, those two schools have firstly practiced the concept of adiwiyata in all kinds of student activities and learning.

(2) The implementation of entrepreneurship education that has been done at SMAN 2 Kota Malang was more oriented to the process of student learning and student habituation with entrepreneurship behavior and individual behavior which cared to the environment. Meanwhile, at SMAN 7 Malang, the implementation was more on the result from what have been taught which could be student provision in the future, being the reliable or professional entrepreneurs and keep preserving the environment including to their social environment.
The impacts of entrepreneurship education that found at SMAN 2 Kota Malang were that this entrepreneurship education could help achieving the school vision and mission. Moreover, the school environment was well-maintained in factors of cleanliness, student activeness and creativity in the entrepreneurship aspect, and environment which also took advantages from this entrepreneurship learning. Meanwhile, at SMAN 7 Kota Malang, the impacts were a lot of student works that could be benefitted for the school facilities. Also, the student capability in entrepreneurship could be student provision in the future.

7. Recommendations

The recommendation for next researchers who will examine the same theme, they are recommended to re-explore the concept of entrepreneurship education in Adiwiyata School in details. From the aspect of curriculum and activities that support the success of entrepreneurship education in Adiwiyata School.

For the schools, this research can be a reference to formulate the concept of activities that are related to the entrepreneurship and environmental education.

For the students and parents, this research can be a reference to continue the study or study concentration in the higher level which is in accordance with the student skill and interest in entrepreneurship or environmental education field.

For the wider society or institutions which are related to entrepreneurship education and environmental education, this research can be a reference to determine the concept.

This research can also be a reference to arrange the next research reports in Department of Business and Management, especially which are related to the entrepreneurship education.

8. Author’s Biography

Ahsan Muzadi was born in Blitar, July 27, 1991. The author was a graduate of Bachelor Degree Program (S1) at State Islamic University of Maulana Malik Ibrahim Malang. Further, the author is currently studying in Magister Program (S2) at State University of Malang, particularly in the Department of Business and Management Education.

Agus Hermawan was born in Ngawi, August 14, 1962. The author was a graduate of Bachelor Degree Program (S1) at University of Brawijaya Malang in 1986, Magister Program (S2) of University of Airlangga and La Trobe University in 2000, and Doctoral Program (S3) at State University of Malang in 2013, and he currently serves as the 1st vice dean of Faculty of Economics and Business at State University of Malang.

Wening Patmi Rahayu was born in Pacitan, October 18, 1973. The author obtained his Bachelor Degree in 1998 at IKIP Malang. The author completed his Masters degree at the University of Brawijaya, majoring in Management in 2001 and obtained his Doctoral Degree (S3) majoring in Economics at Malang State University in 2008. The author currently serves as the Associate Professor at the State University of Malang. Currently the writer is still active as a lecturer at Malang State University.

9. References


