The Role of Green Entrepreneurial Orientation and Self-Efficacy to Encourage Student Intention in Green Entrepreneurship

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ABSTRACT
Aligning with achieving sustainable development goals (SDGs), the entrepreneurship sector has a responsibility to synergize between the economic goals and environmental goals through implementing the model of green entrepreneurship. This study develops a model involving green entrepreneurial orientation and self-efficacy to improve the student intention in green entrepreneurship. Totally 180 students from the Economics & Business Faculty of Universitas Tarumanagara Jakarta are taken as respondents. The regression approach is used to analyze the data with the result as follows: the green entrepreneurial orientation owns the higher impact on green entrepreneurship intention, while the impact of self-efficacy is lower than this entrepreneurial intention. Based on this result, supporting of university needs to realize students in developing their business ideas in line with the effort to preserve the environment in the future. It is relevant to achieving the target of SDGs in 2030. The double bottom line orientation is perceived strongly by respondents. Through entrepreneurial learning, educational institutions together with stakeholders could contribute to building mechanisms to improve the education programs in green entrepreneurship. The next study can involve the legal aspect for supporting the sustainability of the green business.

Keywords: Green entrepreneurial orientation, self-efficacy, green entrepreneurship intention

1. INTRODUCTION

In the era of the 2000s, the leaders of countries who are members of the United Nations declared the Millennium Development Goals (MDGs), covering eight goals that must be achieved in 2015. These various targets aim to increase the achievement of prosperity and development for the global community. As a continuation of the implementation of the second 15 years of development, it was achieved through the Sustainable Development Goals (SDGs) with an achievement period of 2030. In the program, social and economic aspects are targets that cannot be separated from environmental aspects, so that the overall goals of the global community are mapped into three pillars on the triple bottom line[1]. Therefore, the business sector and entrepreneurship are some of the actors in economic development, so both sectors are required to contribute to realizing sustainability practices, including respect for environmental problems.

In practice, many companies only focus on economic goals, so they often ignore social aspects or do not consider environmental sustainability, such as air pollution, river pollution, damage to agricultural land, deforestation, or other things that can trigger the destruction of biodiversity in the future. As quoted in Kompas.com in May 2021, there was a case of factory waste disposal in Cianjur, which had the potential to pollute the Citarum River. The Cianjur Environment Agency noted that there are still other waste disposal sites that need to be addressed. Learning from these cases is important for entrepreneurs to understand environmental problems so that awareness of maintaining
environmental sustainability needs to be grown to entrepreneurs and prospective entrepreneurs. Related to this group, in learning entrepreneurship, it is necessary to harmonize business sustainability and the environment. Orientation to the double bottom line is important in growing student interest in green entrepreneurship.

Green Entrepreneurship is an idea to help solve sustainable development problems as well as the main movement to build a country's economy [2]. This model is a new approach, so it is not easy for individuals to understand and apply it in business activities. To foster entrepreneurial interest in this model, it is necessary to introduce it through education. Entrepreneurship education prepares the younger generation to have an entrepreneurial mentality, have a good way of communicating and be able to prepare business plans. [3] Entrepreneurship education increases social knowledge so that students are creative in their entrepreneurial activities. The existence of entrepreneurship education at the university level aims to produce educated, entrepreneurial candidates who have entrepreneurial knowledge so that they can form an entrepreneurial passion [4]. In addition, the insertion of green entrepreneurship in entrepreneurship learning has the potential to foster a positive attitude towards green entrepreneurship and to form eco entrepreneurial intention among students [5]. This is in line with [6] that universities play a role in overcoming environmental solutions through eco-entrepreneurship.

As a first step in developing entrepreneurship, an entrepreneur must have a strong orientation to entrepreneurial activity. This shows a significant relationship between the two [7]. In line with [8], this orientation relates to the willingness of companies or entrepreneurs to encourage innovation, proactive and risky actions while continuing to develop economic, social, and environmental aspects in the vicinity where the company operates [9] to Aligning the expectations of the global community, and green entrepreneurship is an important part of a country's economic development system. Creativity and innovation must be compatible with sustainability issues, so an orientation towards green entrepreneurship is needed at the individual level.

Green entrepreneurial orientation as a company benefit strategy to compete more effectively in the same marketplace. Green entrepreneurship orientation includes the courage to take risks, act proactively, and have high innovation [10]. These three dimensions usually appear naturally in an individual or group of people who are developing themselves as entrepreneurs. In this process, an entrepreneur goes through three important stages, starting from developing ideas, gathering resources, and managing and operating a business to create values for stakeholders such as consumers, entrepreneurs themselves, society, government, and the environment. Therefore, it is important for prospective entrepreneurs today to align business interests with environmental sustainability in the future.

Aligned with entrepreneurship learning will increase student confidence to form an interest in green entrepreneurship. According to [11] self-efficacy shows a person's willingness to be involved in a task and the amount of effort as well as one's persistence when facing difficulties. Self-efficacy is a cognitive mechanism that allows individuals to control reactions to stress. An individual tends to avoid situations that he or she believes he or she is unable to deal with. However, in business, various possibilities can occur so that the formation of one's persistence or tenacity is very necessary to support the orientation that is already owned in building entrepreneurship, including green business.

Therefore, these two factors are needed in growing student interest in pioneering green entrepreneurship. Through this model, it is hoped that it can grow green value so that it is also responsible for overcoming environmental problems. In line with the previous study, two hypotheses were developed, namely: (H1) Green entrepreneurial orientation impacts positively to the green entrepreneurship intention. (2) Self-efficacy impacts the green entrepreneurship intention positively. Furthermore, in lining with the Theory of Planned Behavior (TPB), this study gives some suggestions for educational institutions to the synergy between education treatments and environmental issues. Through the program of "Merdeka Belajar Kampus Merdeka" or MBKM can be utilized to promote students in the green business practicing in some industries in Indonesia or student exchange on other campuses overseas. By practicing, the students can get new experience, knowledge, skills, networking, and other benefits, so they will be more excited in studying entrepreneurship without ignoring responsibility toward environmental sustainability. With their experience, they can enjoy the newest green learning relevantly to support their business models. It is a part of the process to enrich students in shaping self-efficacy, so more interesting in greening their business model.

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2. THEORETICAL REVIEW

2.1. Green Entrepreneurship Intention

The green economy is a new paradigm and part of a sustainable development strategy that prioritizes the balance of economic, social and environmental values [12]. The green economy concept helps to solve environmental problems such as scarce natural resources and social welfare [13]. Green entrepreneurship is considered a significant key idea, helps solve sustainable development problems, and enhances the main movement in building an economy. This encourages that green entrepreneurship is very important to run.

Entrepreneurial intentions can be encouraged through entrepreneurship education. Entrepreneurship-based education programs are needed because they contribute to developing entrepreneurial attitudes, abilities, and skills to increase entrepreneurial intentions [14]. Entrepreneurial intentions can be encouraged through Entrepreneurship Education. Entrepreneurship-based education programs are needed because they contribute to developing entrepreneurial attitudes, abilities, and skills to improve the entrepreneurial spirit.

2.2. Self-Efficacy

Self-efficacy is a basic characteristic and confidence in oneself or a person in his ability to complete a job or in other words the condition of a person's motivation which is based more on what they believe than what is objectively true. Personal perceptions like this play a peripheral role in the development of one's intentions [15]. Self-efficacy is a condition in which individuals have confidence that entrepreneurship is easy or can be done. Self-efficacy in a business context is an attitude that comes from an individual's self-confidence and perception of competence in doing a business, including green business. Self-efficacy also determines how much effort you can make in the face of obstacles in running your business. Thus, self-efficacy in a person becomes an important factor in determining whether a person's green entrepreneurial intentions have been formed in the early stages of a person starting his career.

2.3. Green Entrepreneurial Orientation

Green entrepreneurial orientation is the result of the interaction of entrepreneurial orientation and social responsibility. Green entrepreneurial orientation is a decision-making process influenced by innovation, pro-activeness from competitors and risks taken by the company while still providing social responsibility. On the other hand, entrepreneurial orientation is related to the company's ability to innovate, be a pioneer, and take risks in new actions. According to [16], a green entrepreneurial orientation is characterized by innovation, proactivity, and risk taking for whom and why it is done. Proactive orientation as marketers try to define external conditions to reduce uncertainty and reduce dependency and vulnerability. Innovation orientation is something new and different that is created through a process of creative thinking and innovative action which is added value and is a valuable advantage. The last entrepreneurial orientation is risk taking. Dare to take risks is the key in building a business, because in this element many items follow it, namely daring to lose, daring to make decisions. This of course affects the intention of green entrepreneurship.

2.4. Developing Hypothesis

Self-efficacy is a condition in which individuals have confidence that entrepreneurship is easy or can be done. This personal perception plays a peripheral role in the development of one's intentions. Self-efficacy in the business context is an attitude that comes from an individual's self-confidence and perception of competence in doing a business, including green business. Self-efficacy also determines how much effort can be made in the face of major obstacles in running a business. Thus, a person's self-efficacy becomes an important factor in determining whether a person's green entrepreneurial intentions have been formed at the beginning of a person. H1 of this research is there is an effect of Self-efficacy on green entrepreneurship intention.
Green entrepreneurial orientation is characterized by innovation, proactivity, and risk taking for whom and why it is done. The higher the orientation green entrepreneurship owned by students will increase the intention on green entrepreneurship among students. It is hoped that with the growth of this interest, students are motivated to implementing a green entrepreneurship model so that it can contribute to equitable distribution of the economy while still prioritizing aspects of sustainability environment and our future. H2 of this research is there is an effect of Green entrepreneurial orientation on green entrepreneurship intention.

3. RESEARCH METHOD

The stages of the research method are as follows: First, this research design uses a quantitative-descriptive approach with involving questionnaire as a tool to collect the data. The questionnaires are shared with respondents through google forms from November until December 2021. Second, the population is taken from students of Universitas Tarumanagara, Jakarta, with the total of 180 respondents. The gathering sample uses non-probability sampling method specifically of purposive sampling approach with criteria as follows: respondents are students in the Economics & Business Faculty, and they take the entrepreneurial subject.

Third, the modelling consists of two independent variables, namely green entrepreneurial orientation, and self-efficacy, for predicting the student intention in green entrepreneurship. More information is as follows: The instrument of green entrepreneurial orientation (GEO) is constructed in six items from some studies, [17];[18], while the indicator of self-efficacy (SE) consists of six items from previous studies, [19]; [13]. The six indicators of green entrepreneurship intention (GEI) are taken from a study by [20]. The entire indicator is converted to be a statement in the questionnaire with Likert scaling of 1 (very disagree) until 4 (very agree).

Fourth, to analyze based on the regression approach by using the Smart-PLS 3.00 to run the data, including outer and inner models. The outer model testing consists of loading factor, cross-loading, Fornell-Larcker criterion, average variances extracted (AVE), Cronbach's Alpha, and composite reliability. While the inner model consists of coefficient determination, Q-square, path coefficient, and goodness of fit model. Two hypothesizes developed in this study with the level significance of t-test in 5% one-tailed or equal with 1.96. Based on this, value is used to receive or reject hypotheses. Lastly, the result of the study is used as suggestions for educational institutions to a synergy between education treatments and environmental issues. Collaborating with stakeholders can increase the ability of eco-friendly business.

3.1. Respondent Profiles

Based on the response of 180 respondents, their profiles are as follows: Male (47.80%) and female (52.20%). The majority of respondents' age is as many as 71%, with a range of 20-22 years old. As many as 56.70% of respondents study management programs while 43.30% are from an accounting program, among of respondents ever involved in the social or ecological champagne as many as 35.60% while 64.40% state never joins in the champagne. Generally, it illustrates the limitation of the care of environmental issues among young adults. Therefore, green education could foster awareness of people toward environmental sustainability for the future.

4. RESULTS

4.1. Result of Validity and Reliability Testing (Outer-Model)

The results of outer model testing are shown in Table 1. It depicts the validity value of entire indicators over 0.70. The highest score of loading factor is 0.875 in the SE6, while the lowest is 0.710 in the SE4. It also proves that the value of loading factors results from the score of indicators greater than the loading factor on the other indicators. Entire indicators in the one construct have the highest scores when are compared with
scoring among indicators in other contracts. Therefore, it is suitable with the discriminant validity among indicators. The further result shows the score of AVE over 0.50, so these constructs fulfil the criterion of convergent validity. The reliability score shows that both composite reliability and Cronbach’s Alpha are over 0.70, so it can be concluded as reliable. Based on these results can be concluded that all the data are valid and reliable, so they can be directed to the next testing.

Table 1. Validity and Reliability Instruments

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator</th>
<th>Loading</th>
<th>Status</th>
<th>AVE</th>
<th>Reliability Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Entrepreneurship Intention</td>
<td>GEI1</td>
<td>0.847</td>
<td>Valid</td>
<td>0.641</td>
<td>Composite Reliability 0.914</td>
</tr>
<tr>
<td></td>
<td>GEI2</td>
<td>0.783</td>
<td>Valid</td>
<td></td>
<td>Cronbach's Alpha 0.887</td>
</tr>
<tr>
<td></td>
<td>GEI3</td>
<td>0.793</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEI4</td>
<td>0.811</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEI5</td>
<td>0.834</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEI6</td>
<td>0.728</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Entrepreneurial Orientation</td>
<td>GEO1</td>
<td>0.802</td>
<td>Valid</td>
<td>0.681</td>
<td>Composite Reliability 0.928</td>
</tr>
<tr>
<td></td>
<td>GEO2</td>
<td>0.802</td>
<td>Valid</td>
<td></td>
<td>Cronbach's Alpha 0.906</td>
</tr>
<tr>
<td></td>
<td>GEO3</td>
<td>0.821</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEO4</td>
<td>0.832</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEO5</td>
<td>0.843</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEO6</td>
<td>0.850</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>SE1</td>
<td>0.732</td>
<td>Valid</td>
<td>0.596</td>
<td>Composite Reliability 0.898</td>
</tr>
<tr>
<td></td>
<td>SE2</td>
<td>0.727</td>
<td>Valid</td>
<td></td>
<td>Cronbach's Alpha 0.864</td>
</tr>
<tr>
<td></td>
<td>SE3</td>
<td>0.791</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SE4</td>
<td>0.710</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SE5</td>
<td>0.809</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SE6</td>
<td>0.853</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Related to the Fornell-Larcker recommends the high score of correlation between construct. For example, in Table 2 shows the score correlation between green entrepreneurial orientation (GEO) and green entrepreneurship intention (GEI) is 0.798, while the correlation on self-efficacy (SE) is 0.705. Moreover, the score correlation between GEO and SE is 0.755. It shows that a given construct had a higher AVE root compared to the correlation between constructs. Therefore, it was fit to say that it satisfies the discriminant validity requirement.

4.2. Result of Validity and Reliability Testing (Inner-Model)

The explanation of the result of inner model testing is as follows: (1) It shows the value Q² is 0.410, so according to Hair et al. (2018), this score illustrates the medium of predictive relevance. (2) The coefficient of determination or R² is 0.661, so it proves the high impact among exogenous variables on the endogenous variable. It means the green entrepreneurial orientation and self-efficacy have a good impact in fostering the green entrepreneurship intention. (3) The Goodness of fit is 0.562, which fit between inner and outer modelling.

Table 2. Fornell-Larcker and Hypothesis

<table>
<thead>
<tr>
<th>Fornell-Larcker Testing</th>
<th>Construct</th>
<th>GEI</th>
<th>GEO</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEI</td>
<td>0.830</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>GEO</td>
<td>0.798</td>
<td>0.825</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td>0.705</td>
<td>0.755</td>
<td>0.772</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Coefficient</th>
<th>T-Statistic</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO &gt; GEI</td>
<td>0.618</td>
<td>7.058</td>
<td>0.000*</td>
<td></td>
</tr>
<tr>
<td>SE &gt; GEI</td>
<td>0.238</td>
<td>2.480</td>
<td>0.013**</td>
<td></td>
</tr>
</tbody>
</table>
Tables 1 and 2 illustrate a piece of good information about this result of regression analysis. Moreover, compared with Figure 1 depicts values of t-statistic along with the modeling that shows the fit of relation on outer models among indicators and constructs including green entrepreneurial orientation, self-efficacy, and green entrepreneurship intention. Meanwhile, the inner model shows the good impact among green entrepreneurial orientation and self-efficacy to the green entrepreneurship intention. It can be cultivated to elaborate some results on hypothesis testing. Therefore, both fit as early models in understanding green entrepreneurship intention.

Aligning with the result of hypothesis testing in the table above, the impact of green entrepreneurial orientation is significant positively to the green entrepreneurship intention. It proved the first hypothesis (H1) is accepted at 1%. Moreover, the impact of self-efficacy on the green entrepreneurship intention is significant positively, so the second hypothesis (H2) is accepted at 5%. The path coefficient of green entrepreneurial orientation is as many as 0.618, which means giving a higher impact than self-efficacy toward green entrepreneurship intention. Therefore, the mechanism through GEO can be utilized to introduce the knowledge of environmental preservation in order to foster the intention of students in green entrepreneurship.

4.3. Discussion

The impact of green entrepreneurial orientation is greater than self-efficacy to promote student intention in green entrepreneurship. The positive impact shows that the establishment of green entrepreneurship in the university environment had a role in changing the mindset of the university students to lean toward green entrepreneurship as a major part of their business orientation. Intention is defined as "the state of mind directing a person's attention and actions toward a specific object goal" [21]. Therefore, it could be said that both formal and informal education can form specific mindsets to build a business without ignoring the risks to the environment. In measuring green entrepreneurial intention, the first indicator (GEI-1) has the highest loading factor with a scoring of 0.847, while the lowest is 0.728 in GEI-6. The last indicator states, "I am serious to think and develop an eco-friendly business." This statement is not easy to practice fairly in business activities. Basically, the economic aspect dominates the entrepreneur's decision than ecological issues. Therefore, students need attention from the institution to realize their goals in the future. This indicator relates to the ownership of perceived behavior control among students which is a part of the theory of planned behavior.

According to [22], the entrepreneurial orientation consists of three domains as "pro-active, innovativeness and risk-taking". The current environmental conditions demand speed in adapting to changes in the global environment by involving three domains. Result shows two indicators have the lowest score of loading factor, meaning that the speed in being proactive and the courage to take risks
are still a bit difficult to perceive for the respondents. Both need to be careful from stakeholders. Conversely, the last indicator (GEO-6) is the highest, with scoring of 0.850. It indicates a majority of respondents are able to perceive that turn to be leader market in introducing the green product, green service, and green technology. It relates to the previous statement that eco-entrepreneurs must be aware of eco-innovation, eco-opportunity, and eco-commitment [23]. Hence, the role of the education system needs to collaborate with stakeholders to facilitate toward green curriculum.

Finally, self-efficacy consists of three domains e.g., level, generality, and strength. Level refers to the individual's belief in his ability to complete tasks with different levels of difficulty. Generality represents global abilities to specific domains of individual abilities. For example, individuals who have high self-confidence will feel confident that they can do more tasks than others. Strength is a form of resilience possessed by individuals in carrying out their duties. For example, individuals with high self-confidence will be persistent and tenacious in carrying out their business even though they encounter obstacles. Thus, one's self-confidence is an important part of building interest in green entrepreneurship.

With the growing intention, students are motivated to adopt the green entrepreneurship model so that one day it will become one of the goals in creating added value in their business. This hope is in line with the MDGs so that an orientation towards green entrepreneurship will contribute to the achievement of green economic growth and the SDGs in 2030.

Following previous study that it is time for universities to encourage environmental solutions through eco-entrepreneurship [6]. Relevant to the study of [20] proves that university education support shapes students' intentions and behavior in green entrepreneurship. For entrepreneurship learning in Indonesia through the MBKM program, universities can realize their support for students by building collaborations with industry and between universities. Currently, green business is being highlighted by the whole world because it represents the responsibility and concern of entrepreneurs in preserving biodiversity, reducing pollution and environmental pollution, and getting used to reducing, reuse and recycling behavior as a way to save resources. In the end, green business is the key to sustainability for economic growth. Nowadays, these behaviors are in line with the green economy so it will be an important breakthrough for entrepreneurial students.

5. CONCLUSION

Study proves the impact of green entrepreneurial orientation and self-efficacy toward green entrepreneurship intention among students. The result shows that green entrepreneurial orientation has a positive response to making students interested in green entrepreneurship. Results show that green entrepreneurial orientation has a stronger effect on forming students' interest in green entrepreneurship. This shows the importance of support from educational institutions in involving green business as an important part of the study of entrepreneurship in Indonesia. Through the MBKM program, universities can realize their support for students by building collaborations with industry and between universities. Likewise, industry and experts can also contribute through MBKM to become social support in learning about green entrepreneurship. The next study can involve the legal aspect or green regulation for supporting the sustainability of the green business.

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