

The Relationship between Sustainable Entrepreneurship and Sustainable Innovation toward the Sustainable Competitiveness of Fertilizer Products A3N 766HI from the Landfill Waste Water Treatment Pakusari Jember throughout motivation for sustainable growth as a Result of the Programs' Campus and Learning Independent

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ABSTRACT

The aims of the study is to see there is or no relationship between Sustainable Entrepreneurship (SE) and Sustainable Innovation (SI) toward Sustainable Competitiveness (SC) of Fertilizer Products A3N 766HI from the Landfill Waste Water Treatment Pakusari Jember (LWWTPJ) athroughout motivation for sustainable growths as the result of the Programs' Independent' Campus and Learning (PICL). The research's questions namely: 1. Is there a relationship between SE and SI variables toward the Motivation for Sustainable (MfS) for model 1 and SE, SI toward SC throughthe MfS of A3N 766HI fertilizer products from the LWWTPJ as a result of the programs' campus independent and learning? 2. Is there stronger relationship between model one (SE, SI \square MfS) and model two (SE, SI and MfS \square SC of A3N 766HI fertilizer products from reservoir from LWWTPJ from the results of the programs independent' campus and learning? The research design is quantitative research and the data collection's method by questionnaires' instrument, distributed to 89 respondents. The instrument is also being tested with validity and reliability. Using the hypothesis testing is because to have a conclusion research. The results of this study are as the following: 1. The R-square value model 1 is 0.480 or 48% and the R-square value model two is 0.680 or 68% 2. There is no correlation stronger between the two models because F-square < F-table.

Keywords : Sustainable Entrepreneurship (SE), Sustainable Innovation (SI), Motivation for Sustainable (MfS), Sustainable Competitiveness (SC), Independent Learning and Campus, A3N 766HI Organic Fertilizer.

1. INTRODUCTION

Sustainable competitiveness certainly requires continuous motivation as well because it does 3 (three) things at once, namely getting profits without reducing/sacrificing the quality of the environment and the quality of human life. Therefore, continuous motivation is needed to get cash and not cost (cause). However, the problem of synchronizing these three things provides business opportunities and ethical behavior from entrepreneurs. Opportunities from these problems are realized by carrying out sustainable innovations to reduce negative environmental and social impacts. Entrepreneurship and innovation that considers three things at once is called sustainable entrepreneurship and sustainable innovation for the present and in the future. This sustainable motivation position serves as a road map to strengthen sustainable entrepreneurial behavior and sustainable innovation to obtain sustainable competitive results. The sustainable competitiveness that is carried out is a means to reduce the operational risk of the education service business because the green education market will accommodate entrepreneurs and innovations that are environmentally friendly. The education service business will dominate the green market if its practices and behavior are friendly to the living and social environment, both now and in the future, both locally and internationally. The sustainable competitiveness that is carried out is a means to reduce the operational risk of the education service business because the green education market will accommodate entrepreneurs and innovations that are environmentally friendly.

The education service business will dominate the green market if its practices and behavior are friendly to the living and social environment, both now and in the future, both locally and internationally. The sustainable competitiveness that is carried out is a means to reduce the operational risk of the education service business because the green education market will accommodate entrepreneurs and innovations that are environmentally friendly. The education service business will dominate the green market if its practices and behavior are friendly to the living and social environment, both now and in the future, both locally and internationally. One of the green products that can be used as an opportunity is to make A3N 766HI organic fertilizer from Pakusari landfill waste water, as a result of running the independent learning program and independent campus.

The researchers are interested in focusing this research on the Pakusari TPA Jember because: 1. The farmers around the TPA always use the TPA waste water to be used as fertilizer for their crops. 2. The scavengers totaling 200 people live in the TPA by setting up tents to make a living from the waste. 3. The campus sees that this TPA is suitable as a place to carry out the Tridharma that is sustainable. 4. Fostering the power of innovation and creativity of students and lecturers, 5. Creating new markets for MSMEs around the TPA to sell at the TPA which is coordinated by the Jember Regency Environmental Service.

The interest of this researcher has met the requirements of sustainable development/growth because it fulfills three related elements, namely nature, social and economy. Sustainable development growth will be a motivational variable to be sustainable.

What does continuous motivation mean? Sustainable motivation is to take an action on sustainable development (...to manage their business operations according to the stakeholders' needs, which should be in accordance with the value system of the company (Lyigon, 2015) to take an economic opportunity through new innovations to overcome problems. environment and social in order to realize social responsibility and ethics of the golden rule (don't do what you yourself don't like and don't like to others) for present and future generations ("meeting the needs of the present without compromising the ability of future generations to meet their own needs" (UN Brundtland Report and WCED, 1987) both locally and internationally.

What does sustainable entrepreneurship mean? sustainable entrepreneur is taking opportunities from an environmental and social problem to get ideas or ideas to be realized in the form of future Goods, Services and Processes (... focused on pursuing business opportunities to bring into existence future products, processes and services, while contributing to sustain the development of society, the economy and the environment and accordingly to enhance the well-being of future generations." (Muñoz, 2013: 4) to reduce the risk of PSP existence in the market to create viable market solutions and focus on social and environmental value which impact key decisions. Binder, Julia Katharina. (2017:1) to obtain economic value without compromising the environment and social. This definition is also in line with (Belz & Blinder, 2017: 2) sustainable entrepreneurship as the recognition, development and exploitation of opportunities by individuals to bring into existence future goods and services with economic, social and ecological gains." (Belz & Binder, 2017: 2).

The meaning of sustainable innovation is a tool to introduce new products or new alternative methods that are relevant. Innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services." (Lüdeke-Freund, F. 2020) to solve environmental and social problems (... compared to relevant alternatives.(Cheng, et al. 2014) and to accelerate financial performance and sustainable competitiveness (... used innovation to strive towards superior financial performance and sustainable competitive advantage) in a highly dynamic (changing and uncertain) market at local and global levels.

The meaning of sustainable competitiveness is a way to get balance value from economic, social and natural through cost leadership and product differentiation (Porter's: 2008) Five Forces influence and generic strategies for creating competitive advantage from recycled raw materials

to get sustainable success in the market. this is also expressed by (Guo, C. 2007.) (Adding the word sustainable in front of a competitive advantage is a way to describe a firm's lasting success in the market (Guo, C. 2007.).

The formulated questions for this research are as follows: 1. Is there a relationship between SE and SI variables toward the Motivation for Sustainable (MfS) for model 1 and SE, SI toward SC through the MfS of A3N 766HI fertilizer products from the LWWTPJ as a result of the programs' campus independent and learning? 2. Is there stronger relationship between model one (SE, SI → MfS) and model two (SE, SI and MfS → SC of A3N 766HI fertilizer products from reservoir from LWWTPJ from the results of the programs independent' campus and learning?

2. CONCEPTUAL FRAMEWORK

2.1 Sustainable Competitiveness

Sustainable competitiveness is the ability to respond to changes in the green market in order to survive in market competition by showing the intention and motivation for sustainable growth and development by meeting the needs of stakeholders by carrying out social responsibility in taking opportunities for economic value embodied in the form of new products with using appropriate innovations, using raw materials that have been used, reducing the use of water and electricity to ensure the quality of the living environment and the quality of social life for the present and the future.

2.2 Sustainable Entrepreneurship towards Sustainable Competitiveness

Getting an economic opportunity from the problem of raw materials to make A3N 766hi fertilizer, through the use of waste water from the Pakusari Jember TPA storage pond is an opportunity for sustainable entrepreneurship because it reduces the use of new raw materials, thereby lowering the price of A3N 766HI fertilizer products. In addition to reducing new raw materials, sustainable entrepreneurship also introduces management technology to treat landfill waste water to accelerate the production of A3N 766Hi fertilizer without having an environmental impact because it is organic. Sustainable entrepreneurship obtained after making A3N 766HI fertilizer products with environmentally friendly technology, entrepreneurial activity that can help 200 scavengers earn income from this entrepreneurial activity by filling the used bottles they collect with A3N 766HI fertilizer products so as to expand the green market and get business opportunities for A3N 766HI fertilizer and reduce underemployment. Entrepreneurial sustainable activities such as utilizing waste water, reducing new raw materials, motivation to accelerate production with manufacturing technology to reduce the use of water electricity, helping scavengers to get business opportunities, it can be concluded conceptually that A3N 766HI products will get the motivation to be sustainable and sustainable. competitiveness because the green market will accept it,

2.3 Sustainable Innovation towards Sustainable Competitiveness

Sustainable The innovation of the fermentation method by using the A3N 766HI biostarter as the A3N 7666HI fertilizer production method will accelerate the resolution of the problem of decaying organic raw materials which produces a lot of gas, foul odors while reducing raw materials and creating magot cultivation to decompose waste, reduce the use of electricity, water and speed up production. to help 200 scavengers living in the landfill. This sustainable innovation will accelerate the production of A3N 766Hi organic fertilizer, accelerate financial fulfillment for scavengers, and use the cultivation method to maintain environmental quality. motivation for the financial value of both the campus and the scavengers and maintaining the quality of the environment by using the mentoring method is the motivation for sustainability.

2.4 Motivation for sustainable towards Sustainable Competitiveness

The motivation for sustainable growth is oriented towards social responsibility and ethics of quality versus quantity and the golden rule in meeting the needs of stakeholders through economic activities by taking into account the quality of the environment and the quality of human life in the present and in the future. Paying attention to social and ethical responsibilities will reduce the risk caused by action, meeting the needs of stakeholders and using natural raw materials. Reducing the risk of business activities is a way to improve product image, increase the quality of benefits from products and services for people who need social responsibility for 200 scavengers. all the activities mentioned above are forms of sustainable competitiveness.

3. METHOD

This study was designed with quantitative research methods by testing hypotheses and using data collection tools with questionnaires and conducting reliability and validity tests from 89 respondents and using data processing tools with SmartPLS to determine the Path Model. The sustainable entrepreneurship variable will be constructed by: 1. generating new entrepreneurs from the environment, 2. introducing green entrepreneurs through management technology for TPA wastewater treatment, 3. Taking opportunities from environmental problems of management technology into economic benefits, 4. Having obtained the place and facilities to carry out independent campus program activities and learning, 5. Has introduced green products for the green market, 6. Introduced environmentally friendly technology, 7. Introducing business opportunities from recycling raw materials for waste water at the Pakusari Jember TPA to reduce raw materials, electricity, water and reduce unemployment.

Sustainable innovation is constructed by: 1. Developing new eco products A3N 766HI using innovative minted technology to enable easy component recycling, 2. developing new products using innovative minted technologies to enable easy decomposition of their materials, 3. developing new products using innovative mentoring technologies to utilize natural materials, 4. developing new products using new eco-products through innovative minted technologies to conserve maximum energy as possible and to reduce waste related damage as much as possible and speed up obtaining finance for 200 scavengers. Motivation for sustainable development and growth is constructed by: 1. Using organic fermentation technology to protect the environment, socially and profitably by increasing efficiency and product diversification from recycling, 2. Sustainable Entrepreneurship Development by reducing new raw materials by recycling, using water and electricity, 3. Developing competence in the tridharma that achievement economic and social development and the environment, 4. Understand that the economy, social and environment are a system that is related to each other. Sustainable Competitive advantage is constructed by: 1. Product A3N 766HI sales have been increased, 2. Product cost has been reduced, 3. product image A3N 766HI is better than that of the competitors because of capability of responsiveness to changes in the market.

4. RESULT AND DISCUSSION

4.1 Result

Tabel 1: Conformity Factor Analysis and Reliability

Variable	Items	Factor Loading	Cronbach's α	rho A	Average Variance Extracted
MFS	Z1.1	0.904	0.787	0.808	0.702
	Z1.2	0.808			
	Z1.3	0.798			

SCA	Y1.1	0.804	0.793	0.801	0.708
	Y1.2	0.829			
	Y1.3	0.889			
SE	X1.1	0.848	0.899	0.901	0.625
	X1.2	0.704			
	X1.3	0.733			
	X1.4	0.764			
	X1.5	0.790			
	X1.6	0.866			
	X1.7	0.818			
SI	X2.1	0.738	0.818	0.840	0.645
	X2.2	0.780			
	X2.3	0.880			
	X2.4	0.806			

Source of Data: Output data from SmartPLS.

From the results of calculations using SmartPLS obtained $r_{11} \geq r$ table, and the reliability of a variable construct is said to be strong if it has a value of $r_{11} > 0.60$ (in Riduwan, 2009:136). So it can be concluded that all the questions are reliable questions.

Table 1 of Conformity Factor Analysis and Reliability shows that the results of reliability test with Cronbach's alpha and rho A. The test were within acceptable limits (Cronbach's; rho A: $p > 0.70$). Moreover, the average variance extracted had to be greater than 0.5. the table 1 shows that the results of the analysis of reliability is high.

Tabel 2: The Discriminat Validity

Variable	MfS	SCA	SE	SI
MfS	0.838			
SCA	0.763	0.842		
SE	0.537	0.623	0.791	
SI	0.637	0.662	0.464	0.803

Source of Data: Output data from SmartPLS.

The Discriminat Validity test was performed a shown in table above. This test revealed that there was discriminant validity between the combinations of the hypothesis model and the sub-dimensions. This showed the reliability of the entire study scale to test the hypotheses. Moeove, the correlation matrix shows the existence of a positive and significant correlation ($p < 0.01$) between the study.

Tabel 3: F Square, R Square, Total Effects and Hipotesis H1 and H2

Variable	Model 1: MfS				Model 2: SCA					
	F Square	F Tabel Df: 2/86 $\alpha = 0.05$	Sig.	Total Effects	R Square	F Square	F Tabel Df: 3/85 $\alpha = 0.05$	Sig.	Total Effects	R Square
MfS			0.00					0.00	0.470	0.680
SCA										
SE	0.142	3.10		0.307	0.480	0.143	2.71		0.403	
SI	0.370			0.495		0.105			0.475	

Source of Data: Output data from SmartPLS.

The R-Square value model 1 is 0.480 or 48% and the R-Square value model 2 is 0.680 or 68%. And if it is seen from the hypothesis test, the F-Square result for SE is $0.307 > F$ -table is 3.10 and the F-square of SI is $0.495 > F$ -table is 3.10 and the F-square value of SE is $0.258 < F$ table is 3.10, Fsquare of SI is $0.242 < F$ table 3.10, F Square of MfS is $0.470 < F$ table is 3.10. This is implying that there is a relationship between SE and SI toward SC is 48% and there is a relationship between SE, SI and MfS is 68%. And correlation for each variable for the model one is SI = 49% and SE = 30.7%, the correlated for model two for SE = 0.143 and SI = 105 and variable MfS is 0.470.

4.b Discussion

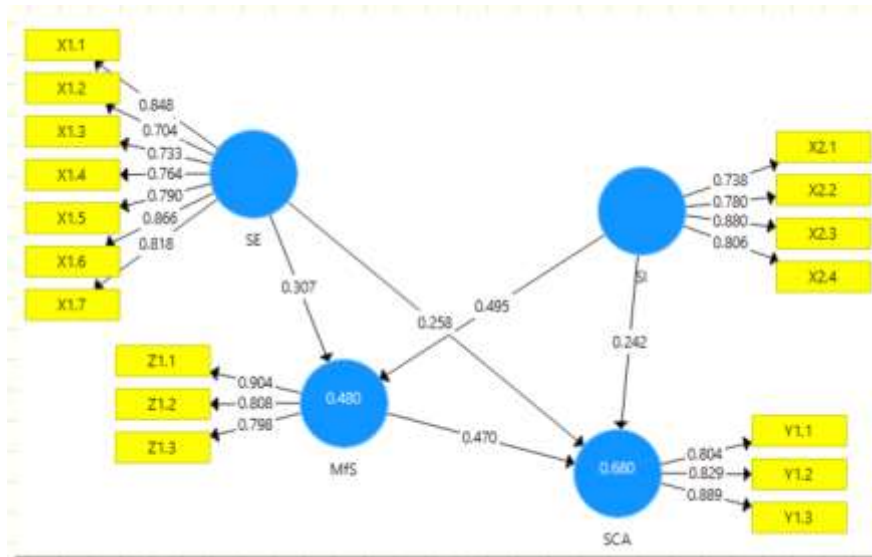


Figure 1: The Model of the Research

The contribution of sustainable entrepreneurship and sustainable innovation toward sustainable competitive advantage with an R-Square value of 0.480 or 48%. Meanwhile, the contribution of sustainable entrepreneurship, sustainable innovation through motivation for sustainable growth toward sustainable competitive advantage with an R-Square value of 0.680 or 68%.

By looking at the picture above for model 2, the highest F-square value predictor of motivation to continue is 0.470 (47%) compared to the SE F-square value of 0.258 (25.8%) and the SI F-square value of 0.242 (24.2%). The data described above can be illustrated that the motivation for sustainability is a very important moderating variable in carrying out sustainable entrepreneurship and sustainable innovation. Motivation to get business opportunities to get economic value and motivation for sustainability must also be carried out as social and ethical responsibility towards social and environmental ethics.

Meanwhile, the F-square value for model 1 for SE is 0.307 (30.7%), the F-square value for SI is 0.495 (49.5%) on Motivation for sustainability. The contribution value of F-Square Sustainable Innovation for model one is 0.495 (49.5%). The value of SI's contribution to the model is very important to observe because sustainable innovation is very important in producing products using landfill waste water as raw material, reducing the use of chemicals, reducing electricity and water use and reducing improper living in landfills. Considering the reduction of raw materials by using recycled wastewater is related to the environment, reducing the inadequate standard of living for 200 people living in the landfill is related to social aspects and reducing production costs and reducing green market risks associated with the economy.

5. CONCLUSION AND SUGGESTION

5.1. Conclusion

The conclusion of the research namely:

- There is a relationship between SE, SI to MfS by 0.480 or 48% for the first model and there is a relationship between SE, SI to SC through MfS by 0.680 or 68% for the second model.
- There is no stronger correlation between predictor variables between the two models because $F\text{-square} < F\text{-table}$. However, the SI variable contributed to model one (SE, SI →

MfS) by = 0.490 (49%). And the contribution of the MfS variable to the second model (SE, SI, MfS → SC) is 0.470 (47%).

5.2 Suggestion for Future Research

The suggestion for further research, it is good if the motivation for Sustainable and Sustainable Innovation should be included as dependent variable and moderating variable.

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