

The Perspective of Patchouli Farmers in Sustainable Entrepreneurship: A Cross Tabulation Analysis

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ABSTRACT

Patchouli farmers contribute in producing essential oil which is needed by several industries. This study aims to determine the opinion of patchouli farmers on sustainable entrepreneurship. This research was conducted during the Covid-19 pandemic involving 298 patchouli farmers who were successfully interviewed in the survey. Researchers followed the health protocol in conducting interviews with respondents. The results of the data collected were then analyzed using cross-tabulation analysis. The current study found that factors like as gender, age, and education have little bearing on long-term patchouli plant cultivation. Local governments should be involved in teaching people how to grow patchouli in a sustainable way. In addition to the beneficial economical advantages that patchouli growers have reaped, awareness of the balance of environmental ecosystems should be a key concern. This research can be used as a reference in sustainable entrepreneurship research by using additional variables.

Keywords: *Perspective, Patchouli, Farmers, Sustainable Entrepreneurship*

1. INTRODUCTION

In this study, efforts to improve the performance of farmers are associated with the entrepreneurial spirit owned by farmers. This research in addition to testing the relationship between entrepreneurship of farmers and farmers also analyzed the performance of their relationship with environmental factors. Entrepreneurship is a dynamic process that is always influenced by environmental factors [1]. Four external environmental factors that play a role in determining farmers' entrepreneurship, namely the physical, social, economic and institutional environment [2].

In this study, sustainable entrepreneurship in farmers will be analyzed in patchouli farmers. The selection of this type of farm is based on a high level of risk and commercial level. Patchouli agricultural commodities are categorized as high risk and require intensive care. The selection of this patchouli commodity is also based on its potential. The land

area that has been developed is very large and has been proven to contribute a very large foreign exchange.

Patchouli oil which is also one of the essential oils exported to several countries with a volume of 1,200-1,500 tons / year or around 85% of Indonesia's essential oil exports [3]. Export destination countries include Singapore, the United States, Spain, France, Switzerland, the United Kingdom, and other countries. Patchouli oil is a binder in the perfume, pharmaceutical, and aromatherapy industries, until now it has not been replaced by other ingredients [4]. Patchouli oil is often used as a mixture of cosmetic, pharmaceutical, and aroma therapy that serves as a fixative agent and pharmaceutical substance [5].

This research is expected to contribute to science, especially related to sustainability practices in patchouli cultivation. The results of this research are expected to be a reference in designing an entrepreneurial development program on patchouli cultivation. Research reviewing the sustainability of

entrepreneurship is limited so the results of this study are expected to contribute to the niche.

2. LITERATURE REVIEW

2.1. Sustainable Entrepreneurship

The benefits obtained from entrepreneurial activities are the opening of employment, improving products, creating new businesses, and changing people's lives. Sustainable entrepreneurship is part of the concept of entrepreneurship that has come to the attention of researchers in recent years. This concept arises because of a high awareness of the long-term survival of natural resources. The scarcity of some natural resources causes business actors to prepare their business processes to be environmentally friendly.

The definition of sustainability is a general agreement to maintain a balance between economic, environmental, and social factors on an equal and harmonious basis to meet current needs without affecting the needs of future generations [6]. Entrepreneurs have been innovating to reduce the impact of business operations on the environment. The increasing degradation of the environment is a signal for the entrepreneurial creativity of the future. The entrepreneurial model is upgraded to a dual bottom line, i.e. eco-friendly entrepreneurship. Further studies were conducted fits this model, which shows that maintaining future sustainability requires creativity, a commitment to the preservation of nature, and the current socioeconomic culture or local awareness in environmental dynamics[7]–[9]. In addition, entrepreneurship is increasing and growing gradually towards the sustainable development of entrepreneurship.

Understanding sustainable entrepreneurship can be defined as the recognition of individual, development, and exploitation opportunities to provide economic, social, and ecological benefits for future goods and services[10]. While sustainable development can be interpreted as meeting future needs that should be seized to produce future capabilities of generational needs, combine sustainable development plans with business models, and develop into sustainable entrepreneurial synergies. Sustainable entrepreneurship is a business model that integrates three domains of sustainable development[8], [11]. In short, the definition of sustainable entrepreneurship is not only limited to the creation of products and services, but also includes environmental commitment and equality.

According to the convergence process model developed by Belz & Binder, the business position was first taken double bottom line stages and developed into triple bottom lines [12]. It is important that sustainable entrepreneurship creates profitable businesses and achieves certain goals of environmental and social goals[13]. As a result, the creation of a merger of technical learning areas of sustainability value for entrepreneurs.

3. METHODS

This type of research is conclusive research, which is research that aims to test the relationship between variables[14]. The study used descriptive statistical analysis to explain phenomena that occur in sustainable entrepreneurship in patchouli farmers in Indonesia. Descriptive research is used to describe, explain, and summarize various conditions, situations, phenomena or various research variables according to events that can be shot, interviewed, observed, and disclosed through documentary material[15]. This research is a model of data collection and analysis that is done cross-tabulation. The study analyzed respondents' opinions based on age, education, employment and number of family members on the problems of patchouli farmers in Indonesia. The study used questionnaires distributed to patchouli farmers in the atmosphere of the COVID-19 pandemic. Research enumerators use established protocol standards. The questions in this questionnaire are addressed to people who fall into the category of poor. The study collected 298 complete questionnaires filled out by respondents from 500 questionnaires distributed. The condition of the Covid-19 pandemic greatly affects the ability of the enumerator in reaching respondents so that the percentage of respondents who successfully interviewed is only 59,6 percent.

4. RESULTS AND DISCUSSION

This study used a sample of patchouli farmers in Indonesia as many as 298 respondents by conducting in-person interviews to get information. their opinions on sustainable entrepreneurship. Respondents were dominated by men as many as 176 people while women as many as There are 122 women. In terms of age level, the sample of this study was mostly farmers with more than 40 years of age. The education level of this study sample is the majority of elementary school educated, which is 158 people followed by a junior high school

educated respondent of 62 people and who have a high school education background of 53 people. The interesting thing is the number of respondents of patchouli farmers who have a background in diploma / undergraduate education which is as many as 16 people. The average respondent had less than 5 ha of patchouli cultivation land and the workforce involved was generally less than 5 people.

4.1 Opinion of Patchouli Farmers on the First Issue of Sustainable Entrepreneurship

When viewed from the gender side, most respondents, especially men, expressed doubts that

Table 1. Characteristics of Respondents

Category		Sum	Proportion
Gender	Man	176	59,1%
	Woman	122	40,9%
Age	15-20 years	5	1,7%
	21-25 years	27	9,1%
	26-30 years	32	10,7%
	31-35 years	24	8,1%
	36-40 years	42	14,1%
	>40 years	168	56,4%
Level of Education	Not school	9	3,02%
	Primary school	158	53,02%
	Junior High School	62	20,8%
	High School	53	17,7%
	Diploma/S1	16	5,4%
Land	<1 ha	194	65,1%
	1 ha -5 ha	104	34,9%
Workforce	1 org	150	50,3%
	2 - 5 org	143	48%
	6 - 10 org	5	1,7%

Table 2. Cultivation of patchouli plants is a necessity

Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Gender						
Man	0	34	67	57	18	176
Woman	0	29	55	28	10	122
Age						
15-20 years	0	3	1	1	0	5
21-25 years	0	5	13	7	2	27
26-30 years	0	4	13	13	2	32
31-35 years	0	4	12	6	2	24
36-40 years	0	14	19	7	2	42
>40 years	0	33	64	51	20	168
Education						
Not school	0	0	4	5	0	9
SD	0	32	74	34	18	158
JUNIOR	0	17	18	22	5	62
SMA	0	13	19	17	4	53
Diploma/Undergraduate	0	1	7	7	1	16

they were growing patchouli plants to meet their economic needs. However, the respondents who stated agreed that they planted patchouli to meet the

Table 3. The results of Chi Square test for the first issue of sustainable entrepreneurship

	Gender			Age			Education		
	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)
Pearson Chi-Square	4.107	3	.250	17.271	15	.303	10.473	9	.314
Likelihood Ratio	4.153	3	.245	16.770	15	.333	13.224	9	.153
N of Valid Cases	298			298					

needs. But respondents who agreed were the second-largest number of responses. This shows that respondents are generally still closed to stating that cultivating this patchouli can help meet the economic needs of the family.

Based on respondents' education, the majority of respondents said they were hesitant to state that they

economic needs of their families.

Based on age, the majority of respondents who were grouped over the age of 40 expressed doubts that patchouli cultivation could help their family's economy. Others agreed that cultivation This patchouli can add economic value to their families.

Table 4. Enthusiastic about being a Sustainable Entrepreneur

Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Gender						
Man	0	46	61	52	17	176
Woman	0	30	52	32	8	122
Age						
15-20 years	0	2	1	2	0	5
21-25 years	0	8	9	8	2	27
26-30 years	0	3	16	11	2	32
31-35 years	0	5	10	7	2	24
36-40 years	0	16	16	8	2	42
>40 years	0	42	61	48	17	168
Education						
Not school	0	1	3	4	1	9
SD	0	52	53	41	12	158
JUNIOR	0	10	27	17	8	62
SMA	0	13	23	14	3	53
Diploma/Undergraduate	0	0	7	8	1	16

cultivated patchouli plants to meet their family's economic needs. However, the respondents who

The results of respondents' perceptions regarding the extent to which they see that cultivation of patchouli plants as a necessity are generally the

Table 5. The results of Chi Square test for the second issue of sustainable entrepreneurship

	Gender			Age			Education		
	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)
Pearson Chi-Square	2.380	3	.497	12.545	15	.637	10.833	15	.287
Likelihood Ratio	2.394	3	.495	13.803	15	.541	14.498	15	.106
N of Valid Cases	298			298			298		

opinion of respondents expressed hesitation. This is because fluctuations in the dry selling price of patchouli plants fluctuate so that they become hesitant to state that

cultivating patchouli can help meet the needs of patchouli farmers.

4.2 Opinion of Patchouli Farmers on the Second Issue of Sustainable Entrepreneurship

The intention of the responder in undergoing a profession as a sustainability-oriented patchouli farmer shows hesitation. Male and female respondents agreed with 84 people and 113 doubters. Similarly, in terms of age. and education, the respondents in this study expressed more hesitation in men. Underlining whether they are enthusiastic about becoming farmers. patchouli. However,

in cultivating patchouli crops. These results show that patchouli farmers both from the point of view of gender, age and education of the majority show that being a patchouli farmer is just a side business. They cultivate patchouli plants just because they see there is potential in terms of price, not from the results of full awareness that this patchouli cultivation will be a profession that will continue.

4.3 Opinion of Patchouli Farmers on the Third Issue of Sustainable Entrepreneurship

The results of this study show that patchouli farmers Both in terms of gender, age and education state that most of the patchouli farmers expressed doubts that the profession they run today is challenging and interesting. This study found that patchouli farmers in Indonesia in general have not focused on the cultivation of patchouli plants as an

Table 6. Becoming a Sustainable Entrepreneur Is Challenging and Exciting

Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Gender						
Man	0	48	68	43	17	176
Woman	1	36	52	24	9	122
Age						
15-20 years	0	2	3	0	0	5
21-25 years	0	10	11	3	2	27
26-30 years	0	3	16	12	2	32
31-35 years	0	5	11	7	2	24
36-40 years	0	16	19	7	2	42
>40 years	1	48	60	38	17	168
Education						
Not school	0	1	3	5	0	9
SD	0	52	59	29	18	158
JUNIOR	0	15	28	15	4	62
SMA	1	13	24	12	3	53
Diploma/Undergraduate	0	3	6	6	1	16

patchouli farmers who have an educational background tend to agree that they have enthusiasm

interesting cultivation to continue. Generally, they chose planting Patchouli because of the short-term

Table 7. The results of Chi Square test for the third issue of sustainable entrepreneurship

	Gender			Age			Education		
	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)	Value	Df	Asymp.Sig. (2-sided)
Pearson Chi-Square	3.011	4	.556	26.006	20	.166	15.675	12	.207
Likelihood Ratio	4.153	4	.498	32.737	20	.036	14.179	12	.289
N of Valid Cases	298			298					

potential they can gain. Another thing is the information that patchouli farmers get that patchouli cultivation can affect the quality of the soil in the planting area.

5. CONCLUSION

The study used correlational analysis to look at the relationships between variables. The variables used in this study include that cultivating patchouli plants is a necessity, enthusiastic and challenging and interesting to work with. These variables are then correlated with aspects of gender, age and education. The results of this study showed that aspects of gender, age and education had no correlation with the benefits obtained to meet the needs. The relationship between aspects of sex, age and education did not correlate with farmers' enthusiasm in cultivating patchouli crops. Patchouli farmers also argue that there is no relationship between gender, age and education with the challenges and interests of patchouli farmers in cultivating patchouli crops. Therefore, it can be concluded that aspects of gender, age and education are not correlated to sustainable entrepreneurship in the cultivation of patchouli plants. Local governments should be involved in providing an understanding of how to cultivate patchouli that can be sustainable. Awareness of the balance of environmental ecosystems should be a serious concern in addition to the positive socioeconomic impacts that patchouli farmers have gained.

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