

The Green Behavior Differences of Green Entrepreneur Intentions among Male and Female Students

Christina Sudyasjayanti, S.Pd., M.M.

Ciputra University, Surabaya, Indonesia

DOI: 10.6007/IJARBSS/v7-i12/3786 URL: <http://dx.doi.org/10.6007/IJARBSS/v7-i12/3786>

Abstract

Many businesses are concerned only by the benefits they gain, regardless of the threat posed to environmental sustainability. Entrepreneurial sustainability is one form of effort to reduce the impact of environmental damage that we can do today. The entrepreneurs who have business activities based on environmentally friendly movement is often assumed as a green entrepreneur, ecopreneur, or sustainable entrepreneurship. Based on Braun's (2010) study using NEP (New Ecological Paradigm) to measure attitudes toward the environment said that women are more tied to the issue of 'green' than men, so this study also uses NEP as a measurement. Samples taken as many as 100 students with the composition of 50 male students and 50 female students. Hypothesis tested by t test to explore the difference of eco-friendly attitude on the green entrepreneur intention of male and female student. From this study it can be concluded that the average of the two groups studied were 8 identical NEPs and 5 identical NEPs. The average difference between the two groups was not significant at 12 NEP and only 1 NEP, the NEP7, was significant. So it can be concluded that today the interest of men and women to become an green entrepreneur is not identical, but the difference is not significant.

Keywords: Green Entrepreneur's Intention, Green Entrepreneurship, New Ecological Paradigm, Gender

Introduction

Many businesses that have been running now are in an effort to increase economic growth in various countries. However, most of the impact of various businesses undertaken does not pay attention to the impact on the environment. Many businesses are concerned only by the benefits they gain, regardless of the threat posed to environmental sustainability.

Nowadays, Indonesia's environment sustainability is going down as seen on the data below.



Source: AIK and Litbang “Kompas”

The increasing of the disaster in Indonesia become the indicator of the environment damage. Thus, entrepreneur as the part of the society has a the responsibility to keep the environment sustainability not only focus on the benefit they will gain.

In this recent time, the entrepreneurial sustainability is one form of effort to reduce the impact of environmental damage. Even though, this requires the commitment of entrepreneurs to continue the preservation of the environment. As for entrepreneurs who do business activities based on environmentally friendly movement is often assumed as a green entrepreneur, green entrepreneur, or sustainable entrepreneurship (Krikwood & Walton, 2009; Koe & Majid, 2014; Sumathi *et al.*, 2014). This sustainable entrepreneurial is still very low demand, whereas the movement and the call to preserve the environment continue to be called in various places. According to the.

This study aimed to determine whether there is a difference in eco-friendly attitude on the green entrepreneur intention of male and female students.

Background

The practice of entrepreneurship with environmentally concerned, nowadays is still a little object to be studied. Because, there are several factors that motivate a person to become a business actor that focuses on the environment. Krikwood & Walton (2010) stated that there are three things that motivate a person to be an green entrepreneur, including the green value, the results of gap identification in the market, and the purpose to meet the needs of life. Green value is the highest motivation factor of the two other factors because this is the reason someone ethically to preserve the environment. This is supported by the assertion that social norms and perceptions are beneficial to the environment, positively engaging in entrepreneurial motivation (Díaz-García & Jiménez-Moreno, 2010).

In addition, looking at the social conditions of the people of Indonesia itself is very closely related to the eastern culture, where female entrepreneur has been underestimated because it is considered less able to open a new business or strategy in managing their business. There are various stigma attached to women that make women less confident in doing business, even this affects the intention of women to become an entrepreneur. Previous research has suggested that female entrepreneurs in Indonesia have increased in recent years. Nevertheless, women entrepreneurs are still considered for not brave enough to take risks than male entrepreneurs. Therefore, female entrepreneurs are generally engaged in small industry sectors, while male entrepreneurs are engaged in large industrial sectors. Thus, women entrepreneurs are considered more concerned about environmental sustainability issues than male entrepreneurs.

Therefore, this study wants to know whether female entrepreneurs have more environmentally friendly behavior than male entrepreneurs in business?

Literature Review

1. Green Entrepreneur

Literally, green entrepreneur can be interpreted as an environmentally friendly entrepreneur. Basically entrepreneurs are those who dare to innovate to make changes to the environment, in other words entrepreneur is not just someone who is committed in business midwife, but someone who can have a positive impact on the environment. Environmentally friendly entrepreneurs are said to be "able to protect natural resources, lower operating costs through waste reduction and pollution, and contribute to societies with sustainable economic development, and provide new and different advantages to succeed in the market." This opinion is corroborated by opinion of Krucketz and Wagner (2010) say that "we have reason to believe that a sustainable individual orientation will also tend to be higher in order to understand the entrepreneurial opportunities resulting from sustainable economic behavior." Therefore, in this study the so-called green entrepreneur, ecopreneur, or sustainable entrepreneurship are those who do business that contribute to the environment, with the aim of building a sustainable environment. Thus, an green entrepreneur is a person who has the innovation to impact the environment by focusing its business focus on environmentally friendly business.

2. Green Entrepreneur Intention

Research conducted by Sharma and Kushwaha (2015) about one's motivation to become a green entrepreneur among others is the opportunity for green entrepreneurs to enter the green market considering the change in consumption patterns of society. Second, there is a link between environmental awareness of green market, green entrepreneur, and sustainable development. Similarly, as expressed by Krikwood and Walton (2009) which states that one's motivation to become a green entrepreneur is the most important green value. Green value in this study is defined as the concern for ethical resilience and consideration as individuals who must participate in maintaining the environment.

Koe & Majid (2014) in his research found a new model of merging between Theory Planned Behavior (TPB) and Entrepreneurial Event Model (EEM) to examine the interest of sustainable entrepreneurship that produced a new model which stated that the interest of sustainable entrepreneur is influenced by three things, ie situational factors, cultural factors, and personal factors, all of which are mediated by perception variables.

3. Gender

The role of men and women is also influential in their interest to become an green entrepreneur. Supportive studies suggest that entrepreneurial interest is also influenced by subjective norms, self efficacy, and gender-moderated attitudes (Gracia & Moreno, 2010). Although self efficacy has no significant effect on entrepreneurial interest. Self efficacy will have an effect if it is moderated by gender variables. The model of this study was taken from Theory Planned Behavior (Ajzen, 1991) which was updated by adding the gender variable as moderator.

K. Sumathi *et.al.* (2014) argues that women entrepreneurs have the opportunity to promote environmentally friendly actions through their business despite some challenges to be faced, such as difficult government regulations, investments in green businesses that require relatively longer time, lack of competition among green businesses, and the difficulty of convincing investors (banks) to provide loans.

In Braun's (2010) study using NEP (New Ecological Paradigm) to measure attitudes toward the environment it is said that women are more tied to the issue of 'green' than men, besides the female participants in this study have a more environmentally friendly behavior and committed to green entrepreneurship .

Research Methods

Research Design

This study uses a quantitative approach. Quantitative approach is the approach that in the proposed research, process, hypothesis, down to the field, data analysis and data conclusions up to writing using measurement aspects, calculations, formulas and numerical data certainty. Quantitative research aims to test the hypothesis of data that has been collected in accordance with previous theories and concepts.

Population and Sample

The sample in this study was determined based on non-probability sampling and the sample was chosen by purposive sampling. Where it is confined to specific types of specific sets of people who can provide the desired information, or because of a group of people according to the criteria the researcher has determined (Sekaran and Bougie, 2014: 252). The sample chosen is a student of Ciputra University Surabaya who is sitting in the third semester and is taking Entrepreneurship Course 3. Samples taken as many as 100 students with the composition of 50

male students and 50 female students. The population of this study is Ciputra University students who numbered approximately 1300 students.

Data Collection Technique

The data used in this study is the primary data. Data collection will be done by distributing as many as 100 questionnaires to the respondent, ie in accordance with the number of samples that have been determined. This sample is said to be feasible according to Roscoe in Suki (2013) stating that the number of samples said to qualify is as much as 30-500. The questionnaire contains statements describing the variables studied. The variables are measured through Likert scale with the weighting range as follows:

- a. Strongly Disagree: 1
- b. Disagree: 2
- c. Neutral: 3
- d. Agree: 4
- e. Strongly Agree: 5

In this study we will use a questionnaire adapted from Zelenzy *et.al* (2000) adapted by Braun (2010) known as NEP (New Ecological Paradigm) to measure the interest of male and female green entrepreneurs.

Hypothesis Testing Technique

T-test conducted to test the green behavior differences on green entrepreneur intention of male and female students.

Results

This research was conducted on 100 students of Ciputra University from 13 courses at Ciputra University. From each study program is taken 4 to 10 students as respondents. The respondents taken from each course must average spread between male and female students. It is based on the consideration that t-test requires normal distribution and variance for the two tested groups assumed to be the same (Santoso & Tjiptono, 2004).

The study, which uses the NEP instrument (New Ecological Paradigm), uses 15 questions that are used to compare the intention of male and female green entrepreneurs. Previously, 15 questions from the NEP were then tested for validity and reliability then t-test. Reliability refers to the consistency and stability of the value of certain measurements in each measurement done on the same thing (Sarwono, 2015).

The validity test requires that the correlation coefficient value of the calculation result should be positive and must be greater than the correlation coefficient value of the table. In this research, the error rate of 5% is taken, therefore the instrument question item is valid if the correlation coefficient value of the calculation result should be greater than 0.3. The value of correlation coefficient calculated results can be seen in the Corrected Item Total Correlation column as in the following table:

Tabel 1. Validity Result

	<i>Corrected Item-Total Correlation</i>	Note
NEP1	0,779	Valid
NEP2	0,735	Valid
NEP3	0,504	Valid
NEP4	0,872	Valid
NEP5	0,701	Valid
NEP6	0,063	Invalid
NEP7	0,903	Valid
NEP8	0,405	Valid
NEP9	-0,047	Invalid
NEP10	0,776	Valid
NEP11	0,634	Valid
NEP12	0,631	Valid
NEP13	0,634	Valid
NEP14	0,454	Valid
NEP15	0,629	Valid

From the table above found that the value of correlation coefficient NEP6 only 0.063 or less than 0.3 so declared invalid. In NEP9 the result of the correlation coefficient of the calculation result is -0.047 where the result is negative and less than 0.3 so it is declared invalid. The reliability test of the 13 instrument items found that the value of Cronbach's Alpha is 0.919 where the instrument is declared reliable because the value is greater than 0.8.

Tabel 2. Reliability Result

Cronbach's Alpha	N of Items
0,919	13

Hypothesis testing is done by different test using independent sample t-test. The independent two-sample T-test will in principle compare the averages of the two groups that are not related to each other, with the aim of whether the two groups have the same average or not significantly (Santoso & Tjiptono, 2004). In this study, two unrelated groups were male and female student groups.

Tabel 3. Mean of Male Students dan Female Students

	Mean Mahasiswa Pria	Mean Mahasiswa Wanita
NEP1	3,42	4,76
NEP2	3,54	4,66
NEP3	3,60	4,24
NEP4	2,06	4,48
NEP5	3,54	4,70
NEP7	2,22	4,14
NEP8	1,44	1,96
NEP10	2,48	3,60
NEP11	2,10	3,56
NEP12	2,54	3,40
NEP13	2,56	4,10
NEP14	2,74	3,68
NEP15	2,46	3,94

Viewed from the table above, it appears that the average male student is lower than the average female student.

The equation of variants between groups compared, male and female students, can be seen from the significance value. If significance > 0.05 then there is no variant difference between male and female students. If the significance < 0.05 then there is a variant difference between male and female students.

Tabel 4. Varians Equation of Male Students Group and Female Students Group

	Sig.	Result
NEP1	0,001	Not Identic
NEP2	0,035	Not Identic
NEP3	0,255	Identic
NEP4	0,125	Identic
NEP5	0,005	Not Identic
NEP7	0,038	Not Identic
NEP8	0,003	Not Identic
NEP10	0,182	Not Identic
NEP11	0,069	Identic
NEP12	0,269	Identic
NEP13	0,000	Identic
NEP14	0,000	Not Identic
NEP15	0,000	Not Identic

The table above shows that of the 13 items of NEP there are 8 items that indicate the difference of interest between male and female students to become an green entrepreneur. In addition, there are 5 NEP items that show no difference in interest between men and women to become an green entrepreneur.

Meanwhile, to know whether the average difference in the interest of green entrepreneur male and female students is significant or can not be seen from t arithmetic. If $t_{\text{arithmetic}} > t_{\text{table}}$ then both the average gender is significant. If $t_{\text{arithmetic}} < t_{\text{table}}$ then the two gender averages are insignificant. T table can be known from $df = N-2$; $df = 100-2$ found that df is 98 with t value 19,845.

Tabel 5. T-test Result

	<i>t test for equality of Mean</i>	t tabel	Result
	t		
NEP1	-12.694	19.845	not significant
NEP2	-11.402		not significant
NEP3	-5.345		not significant
NEP4	-18.639		not significant
NEP5	-11.993		not significant
NEP7	-24.872		significant
NEP8	-5.025		not significant
NEP10	-11.205		not significant
NEP11	-8.711		not significant
NEP12	-8.614		not significant
NEP13	-8.586		not significant
NEP14	-5.062		not significant
NEP15	-7.843		not significant

Thus it can be concluded that the difference in average interest of green entrepreneurs of male students and female students is not significant in NEP 1, NEP2, NEP3, NEP11, NEP12, NEP13, NEP14, and NEP 15. Nevertheless, NEP7 the average difference in the green entrepreneur interest of male and female students associated with the environmental damage we face is an exaggerated issue is significant. This also appears in the Mean Mean Men and Female Students Table showing that the mean male student (2.22) is lower than the female student mean (4.14).

From this study it can be concluded that the average of the two groups studied were 8 identical NEPs and 5 identical NEPs. The average difference between the two groups was not significant at 12 NEP and only 1 Nep, the NEP7, was significant.

Conclusion

In this study found no difference in average interest of green entrepreneur of male and female students at Ciputra University. This is indicated by the discovery of 12 non-significant NEP and 1 significant NEP. Meanwhile, from 13 valid NEPs, it was found that 8 NEPs were not identical/unconnected between male and female students and 5 NEPs who were identical/interconnected for a group of male and female college students.

So it can be concluded that today the interest of men and women to become an green entrepreneur is not identical, but the difference is not significant. This finding is different from the findings of previous studies which suggest that women entrepreneur interest in environmental balance is higher than men.

In Braun (2010) found that female entrepreneurs have a more environmentally friendly behavior than male entrepreneurs, this was found to be different in this study. Similarly, in research K. Sumathi et.al. (2014) stating that female entrepreneurs have the opportunity to promote environmentally friendly actions, both male and female entrepreneurs have the same opportunity to become green entrepreneurs when viewed from their interests.

Corresponding Author

Author: Christina Sudyasjayanti

Affiliation: Lecturer of International Business Management, Ciputra University, Surabaya

Country: Indonesia

Email: christina.sudyasjayanti@ciputra.ac.id

Address: UC Town, CitraLand, Surabaya, Indonesia 60219

References

- Braun, P 2010. Going green:women entrepreneurs and the environment. *International Journal of Gender and Entrepreneurship*, vol.2, no.3, hh. 245-259.
- Díaz-García, M. C., & Jiménez-Moreno, J 2010. Entrepreneurial intention: the role of gender. *International Entrepreneurship Management Journal*, vol.6, hh. 261–283.
- Kirkwood, J., & Walton, S 2010. What motivates green entrepreneurs to start businesses?. *International Journal of Entrepreneurial Behaviour & Research*, vol. 16, no. 3, hh. 204-228.
- Koe, W.-L., & Majid, I. A 2014. A model for predicting intention towards sustainable entrepreneurship. *International Journal of Information, Business and Management*, vol. 6, no.2, hh.256-269.
- Ndubisi, N. O., & Sumesh R. Nair 2009. Green entrepreneurship (Ge) and green value added (Gva): a conceptual framework. *International Journal of Entrepreneurship*, vol. 13, special issue,hh. 21-34.
- Santoso, S., & Tjiptono, F 2004. *Riset pemasaran konsep dan aplikasi dengan SPSS*. Jakarta: PT.Elex Media Komputindo.
- Sarwono, J. (2015). *Rumus-Rumus Populer dalam SPSS 22 untuk Riset Skripsi*. Yogyakarta: Penerbit Andi.

Suki, M. N. 2013. Green Awareness Effects on Consumer's Purchase Decision: Some Insights from Malaysia .*IJAPS*, vol. 9, no.2, hh. 49-63.

Sekaran, Uma dan Bougie, Roger 2014. *Research methods for business, 6th ed.* Chichester: John Wiley&Sons Ltd.