

# The Effect of Environmental Knowledge and Attitude towards Pro-Environmental Behavior with Social Economic Status as Moderation in Peasant Community in Banjarsari Regency, Surakarta 2013

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## Abstract

Environment is an important factor in life survival, and part of community's responsibility. Thus, the support from the community is needed for maintaining environmental sustainability.

The research aims: (1) to analyze the effect of environmental knowledge toward pro-environmental behavior in peasant community in Banjarsari District, Surakarta. (2) to analyze the effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta. (3) to analyze the effect of social economic status towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta. (4) to analyze moderation effect of social economic status in the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta. (5) to analyze moderation effect of social economic status in the effect of environmental attitude in peasant community in Banjarsari District, Surakarta.

This research belongs to quantitative research with path analysis, moderation model. The population is peasant community in Banjarsari district, Surakarta. From 800 persons as samples, 80 persons were used as data. Data collecting was conducted by using *Cluster Sampling*.

Research result can be concluded as follow: (1) There is an effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta. It is proven by the result of p value  $0.023 < 0.05$ . (2) There is an effect of manner towards pro-environmental behavior. It is proven by the result of p value  $0.004 < 0.05$ . (3) There is an effect of social economic status towards pro-environmental behavior. It can be proven by the result of p value  $0.024 < 0.05$ . (4) Social economic status does not moderate the effect of environmental knowledge towards pro-environmental behavior. It is proven by coefficient or beta  $ZX_1-ZX_3$  0.064 with a significance level  $0.544 > 0.05$  means insignificant. (5) social economic status do not moderate the effect of manner towards pro-environmental behavior. It is proven by beta  $ZX_2-ZX_3$  0.062 and the significance level  $0.545 > 0.05$ .

**Key words:** Environmental knowledge, attitude, pro-environmental behavior, social economic status

## I. INTRODUCTION

### A. Background

Environmental damage occurs everywhere and brings incalculable loss of life and property. Until now environmental issues become hot topics as environmental degradation is not balanced by the effort to preserve it. Environmental problems occur because natural resources are incapable to fulfill human's need. Human manage their nature for better life, but they often forget to keep the balance of the environment as human's role changes from manager into exploiter (Soerjani, 1985: 47). Environmental issues such as water and air pollution, and environmental sustainability is a very complex problem that should be resolved. Thus, it is required a conscious effort of the people who care to solve the problems.

The Law of Republic of Indonesia Number 23, 1997 about Environmental Management Article 1 paragraph (2): Environmental management is an integrated effort to preserve the function of environment includes regulation, utilization, development, maintenance, restoration, monitoring, and environmental control. And article 3: Sustainable development with environmental concept is a conscious and planned effort supporting environment includes the resources into the development process to ensure capability, welfare, and the quality of life of the present and future generation.

Society's right, obligation, and role in managing the environment as one of integrated development activities has been arranged in the Law of Republic of Indonesia Number 23, 1997 about Environmental Management. Article 5 paragraph 1: "every person has the same right for good and healthy environment". And article 3: "every person has right to participate in the management of the environment". Article 6 paragraph (1): "every person is obliged to preserve the environment, to prevent and to resolve pollution".

The Law of the Republic of Indonesia Number 23, 1997: environmental management implies that society is obliged to preserve the environment and to prevent pollution. However, people are unaware of the environmental problem because people lack of knowledge and concern toward the environment.

The effect of the development of technology influences the development of the environment, either good or bad.

In one side, the development of knowledge and technology increase human welfare. In another side, it triggers problems disturbing the environment and the quality of human's life. Thus, human should give their best effort to prevent environmental damage. It can be conducted by applying the concept of environment. Human should have perspective or mindset towards the elements of the environment, either physical-biological or social environment. It indicates the importance of knowledge about environment to encourage human to care for the environment.

Knowledge relates to environmental problems and the right action to solve that problem becomes one of the requirements for responsible behavior. However, every person's eagerness is the most important step to realize that behavior. One's eagerness is influenced by personality factors. Those are attitude, locus of control, and responsibility (Hines, Hungerford and Tome ra: 1986).

Pro-environmental behavior is an integrated activity. It is based on the perspective for considering ecological dimension and ecosystem, so that all actions do not disturb the environment. According to Sarwono, one's attitude is guided by mindset that human and environment need and influence each other. In other word, they create balance in exploiting the nature (Sarwono, 1992).

For that reason, human's attitude is based on the mindset considering ecological dimension and ecosystem to prevent us from disturbing the nature. All human's attitude in exploiting the nature for their welfare should consider the environmental sustainability to avoid environmental damage. It requires knowledge, good attitude, and responsibility toward the effect of environmental damage to sustain the environment

The concept of environmental concern stems from the changing symptoms in society's view towards environment. This change is characterized by the presence of high concern for environmental issues which rise to be social issue. The most important element concerning toward the environment is concern, attitude, belief, and value. It guides each person's behavior to- whether or not supports the environment (D. Meadows.1972:109).

Someone with positive and pro-environmental behavior tend to show responsible action. However, different situations such as economic condition, social pressure, and opportunities can prevent or strengthen the emerging of that kind of behavior (Hines, Hungerford dan Tomera 1986).

People still lack of awareness to preserve the environment. "People forget to consider nature as their best friend". By technological touch, people forget that earth is the lungs of the world. It is also able to provide water. (Valerina Daniel, 2009: 15). To consider that environment is an important part of human's life, human should support the effort to preserve the environment. Nowadays, there is phenomenon that young generations lack of awareness towards the environment. It can be observed from the trashes scattered around their community and the communal toilet which is rarely cleaned. This issue indeed triggers health and environmental problem. (Masitoh, 2006: 1), <http://www.pustakaskripsi.com>

According to some officers at Kadipiro sub district, society's concern towards environment's cleanliness, health, and comfort is still low. It can be seen from their low participation in community work to clean their area and their low awareness to throw trashes scattered around in the right place. Most of them belong to low class society. To raise the environmental awareness, society need to raise their environmental knowledge and attitude. It can be conducted by involving them in various event related to environment.

The idea about the effect of environmental knowledge and attitude toward pro-environmental behavior strengthened by social economic status is not proven. For that reason, this research about the effect of environmental knowledge and attitude toward pro-environmental behavior strengthened by social economic as moderation in the society is conducted.

#### **B. Research Problem**

Problems in this research are formulated below:

1. Is there any effect of environmental knowledge toward pro-environmental behavior in peasant community in Banjarsari District, Surakarta?
2. Is there any effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta?
3. Is there any effect of social economic status towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta?
4. Does social economic status moderate the effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta?
5. Does social economic status moderate the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta?

#### **C. Research Objectives**

The objectives of the research are:

1. To analyze the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta.

2. To analyze the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta.
3. To analyze the significant effect of social economic status towards pro-environmental behavior in peasant community in Surakarta.
4. To analyze moderation effect of social economic status in the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta.
5. To analyze moderation effect of social economic status in the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari District, Surakarta.

## II. LITERARY REVIEW AND HYPOTHESIS

### A. Theoretical Description

#### 1. Natural Environment

According to Beroya (2000:16), environment is defined as all the things completing an organism. It is conditions influencing the development and growth of the organism. Hadi (2000:2) states that "environment is a system of the unity of space, things, power, condition, and organism, including human with its behavior influencing other's survival". Environment is a term covering all living and non-living things in nature on earth which naturally function without excessive human intervention (<http://id.wikipedia.org/wiki/Lingkunganhidup>)

Sastrawijaya (2000:6) states: "environment is all living and non-living things and the condition of the space we live in". Environment is the unity of space with all the things, powers, conditions, and creatures including humans and their behavior effecting human and all creatures' survival and welfare (<http://www.dephut.go.id/>)

The Law of the Republic of Indonesia Number 23, 1997 about Environmental management article 1 paragraph (1): environment is the unity of space with all the things, powers, conditions, and creatures including human and the behavior effecting human and all creature's survival and welfare.

Suparmoko (1997: 471) states that "human interacts with its environment. They influence and be influenced by their environment. They shape and be shaped by their environment. Human is phenotype, the embodiment resulted by the interaction between their offspring's characteristics and environmental factors". Hadi (2000:2) states that "human in its interaction with nature is called free creature".

Environment contains two characteristics: (1) It is related to the elements of living and non-living things, and (2) elements related each other reciprocally or linearly so that it creates networks between living or non-living good elements. Environment is the source of fulfilling life necessities for the creatures around it. During the interaction process, human influence and be influenced by its environment.

Biotic component in the environment is originally formed naturally. Human did not intervene in its shaping process. Environment which is naturally formed called natural environment. According to Hadi (2000:4), environment is changing time to time. It is caused by human's behavior to preserve and to enhance their life quality, quantitatively or qualitatively. Natural environment eventually becomes "man-made environment".

According to the explanation, environment is the unity of space with all living and non-living creatures and the conditions in it, be it power, condition, and creature's behavior in effecting their life survival.

#### 2. Knowledge

According to Suprpto in Sobur (2003:34), knowledge coming from latin word 'science' which means "knowledge". The word *scientia* coming from the verb *scire*, which means "learning" or "knowing". Knowledge is an impression inside human mind as the result of the use of human's five senses with their difference beliefs, superstitions, and misinformation.

Mehra and Burhan in Sobur (2003:35) states that "knowledge is a system of idea corresponding to the system of things and is related by belief". There are three sources of knowledge; knowledge gained from direct picture, knowledge gained from conclusion, and knowledge gained from witness.

Supriyono (2009:30) states that "the nature of knowledge contributes to deconstruct mechanical learning". Constructivism idea about knowledge is formulated as follows: (1) knowledge is not only a picture of the world, but also the construction of reality through the subject. (2) subject shapes cognitive, category, concept, and structure scheme which is required for knowledge. (3) Knowledge is shaped in someone's concept structure.

According to Hatta in Sobur (2003:35), "Knowledge gained from experience is called experience knowledge. Knowledge gained from information is called science. Science is knowledge with specific requirements: systematical, rational, empirical, general, and cumulative".

According to Notoatmodjo, 2007: (145-146), knowledge in the cognitive domain has six actions: knowing, understanding, application, analysis, synthesis, and evaluation. Eugene P. Odum (1997:308) states that in using technology, human should concern about the environment so that negative effect can be avoided.

Human mastering various science and technology have big influence in the nature. The influence of human for instance, river sand mining causing erosion which then disturb environment and human's life quality (Daniel D. Chiras, 1991: 6-7). Human should be responsible towards the effect of environmental damage. Some factors to

consider: (1) the awareness that earth belongs to all earth inhabitants, (2) the development of natural resources are in harmony with nature ethics, (3) harmony with nature, and (4) the development of human responsible behavior for future generations (MesarovicMihajlo and Edwards Pestel, 1974:147).

Various environmental problems have one similar characteristic that human is the main cause of disaster. The problem now is how to raise environmental awareness so that the management of natural resources for development can be conducted in line with environmental development.

Human being is dependent on others. The influence of technology and its organization determine the condition of the environment. It can be conducted if humans have environmental concept. In other words, human should have knowledge and perspective towards environmental elements such as physical-biological or social environment.

Hines, Hungerford, and Tomera (1986) states that: "Behavior is not shaped by itself. It is shaped by learning process. For example, human needs sweeping skills and the knowledge about cleanliness to sweep the floor. Knowledge about environment and the right action to solve environmental problem is one of the requirements of responsible action. However, it also needs eagerness to realize that kind of attitude. The eagerness is influenced by characteristics factors. Those are manner, locus of control, and responsibility."

Based on those opinions, it can be concluded that knowledge is the result of "knowing". It resulted from human observation on specific object and subject. Environmental knowledge is a product obtained from information and interaction process involving concept, method, facts, principle, social norm, law norm, religious norm, value system and human's attitude, and natural phenomenon about environment covering the unity of space with living and non-living creatures and the conditions in it, be it power, condition, and attitude in effecting human and all creature's survival at the present and the future.

### **3. Attitude**

According to Azwar (2003:6), attitude is a general evaluation created by human toward themselves, other people, object or issue. Notoatmodjo (2002:146) defines attitude as reaction or response towards stimulus or object. Purwanto (1999:62) states that attitude is ideas or feelings with the tendency to act as that object's attitude. Azwar (2003:24-28) states that attitude structure consists of three interrelated components, they are:

1. Cognitive component: It is the representation of what is believed by an individual. It believes on individual stereotype towards something. It is similar with 'opinion' if it involves controversial issues.
2. Cognitive component: It involves the tendency to act based on someone's attitude. There is the tendency to react with specific way.

According to Notoatmodjo (2007), attitude consists of various steps: receiving, responding, appreciating, and responsible. Purwanto (1999:25) states: "attitude can be positive or negative. Positive attitude is an act of approaching, loving, and hoping for specific object. Negative attitude tend to avoid, hate, and dislike specific object."

One of the important aspects to understand human's action is attitude assessment or measurement. Sax in Azwar (2003: 87-88) shows some manner characteristics:

- 1) Attitude with direction: attitude with two direction, whether agree or disagree, whether support or not, whether take side or not towards something or someone as object. Someone who is agree, support and take side on an object have positive attitude and vice versa.
- 2) Attitude with intensity: power of attitude toward something is not the same, though the direction is different.
- 3) Attitude with agreement and disagreement toward an object of attitude can involve only specific or many aspects.

From the explanation, it can be concluded that attitude is a feeling of agree or disagree towards an object. Attitude has evaluative characteristics. It ends in the value which is believed and shaped relate to an object. Attitude is a positive and negative feeling or a mental condition which is always prepared, learned, and ruled through experience influencing someone's response towards object, human, or condition. Attitude is a closed reaction from a person towards stimulus or object. Attitude is willingness to act. Attitude is not activity. It is a predisposition of an act. Attitude is a readiness towards object in specific area as appreciation of an object.

Environmental attitude is a feeling to support or not to support an environmental object including the unity of space with all living or non-living things and conditions inside, be it power, condition, and manner in affecting their live survival at the present or in the future.

### **4. Social economic status**

Social economic status is a term used a long time ago to show prestige system in the society. According to kamusbesar Bahasa Indonesia (2008:1338), status is defined as condition or position (person or institution) in relation with the society. One's position in a community relates to the people in the community and how he/she depends on that community.

Level of society in sociological theories has status and role elements. SoerjonoSoekanto defines status as a place or someone's position in a social group relates to other people in that group or a group with another group in a bigger group (SoerjonoSoekanto, 1990: 293). In this case, status is related to the relationship in the society.

According to Astrid S. Susanto (1999:75), "Status is an objective position delivering right and obligation to those occupying the position". In this case, status is a position requiring right and obligation for the person in that position. Status also differentiates someone's dignity with other's dignity in the community. Social is a situation in which human interact each other (Gerungan, 2000: 72). It means that in social situation, human interaction occurs.

According to Cohen (1983:76), social status is individual's position in a group or a social level of a group compared to another group. SoerjonoSoekanto (2002: 239) defines social status as the place of a person in his/her society, prestige, environment, and rights and obligation.

Economic is a science of human's activity to fulfill their needs. It is about daily needs and how to get it. According to Gerardo P. Sicut and H. W. Arndt translated by Nirwono (1991:4), economic is a study about many things relate to human's material welfare. While DjoerbanWachid (1994:2) states that economic is a social knowledge observing human behavior in the society, specifically in their effort to fulfill their need. It can be concluded that social economic status is a position in society in terms of family need fulfillment. Social economic condition of every family in the society is different. Society level exists to differentiate one another. SoerjonoSoekanto (2002:255) divides society into three groups of multilevel triangle: (1) upper class, (2) middle class, (3) lower class.

According to SoerjonoSoekanto (2002:237), social economic status can be measured by wealth, power, honor, and knowledge. Social economic status is a family position given by a community. The status is determined by wealth, job, education, and social class. Family's social economic status is divided into three: high, middle, and low. The criteria used to determine those levels are education, job, income, wealth, and the position in the society.

Economic factors are also important because social economic status is very influential towards family's lifestyle. One's willingness is influenced by characteristic factors. Those are attitude, locus of control, and responsibility. Individual with knowledge and skills, and positive attitude towards the environment tend to show responsible action. However, situational factors such as economic condition, social pressure, and opportunities can hamper or strengthen that kind of behavior (Hines, Hungerford, and Tomera, 1986).

For that reason, social economic status of the society can strengthen or weaken the effect of knowledge or attitude towards pro-environmental behavior. Higher social economic status tends to strengthen the influence of knowledge and skill towards pro-environmental behavior, while low social economic status weakens the effect of knowledge and attitude towards pro-environmental behavior. According to those theories, the indicator of the research to determine social economic status is the level of education, job, income, wealth, and various needs.

## **5. Pro-environmental behavior**

Behavior is an activity of an organism or creatures (Notoatmodjo, 2007: 131). Human's behavior resulted from their experience and their interaction with their environment in the form of knowledge, manner, and action. Skinner in Notoatmojo (2007:43) conclude that behavior is a response towards stimulus. Thus, human's behavior occurs through process: stimulus.

If human's behavior focus on their personal interest rather than mutual interest, environmental support decreases. Then, environmental damage cannot be avoided. For that reason, trashes and wastes in our environment need to be treated seriously.

In dealing with environment, we need knowledge, right attitude, and willingness. Pro-environmental concept stems from the changing of society's perspective towards the environment. It is characterized by people's high concern towards environmental problem which rise to be social problem. The important elements in pro-environmental behavior are attention, trust, and environmental value which guide people to support or not to support that kind of behavior (D. Meadows. 1972:109).

If pro-environmental behavior is based on personal interest, individual will only protect the environment to get bigger profit than the cost they spent. This kind of intention indeed causes bad effect on environmental sustainability which then influence human's welfare. If environmental concern is based on the orientation of humanistic value, individual will not care for the cost they spent to save human and environment.

## **B. Relevant Research**

Prior research:

1. Yustina's research (2006) entitle: "The Relation between Environmental Knowledge with Perception, Attitude, and Interest in the Environmental Management of Elementary School Teacher in Pekanbaru". The research shows different score of knowledge before and after environmental education delivered to the teacher.



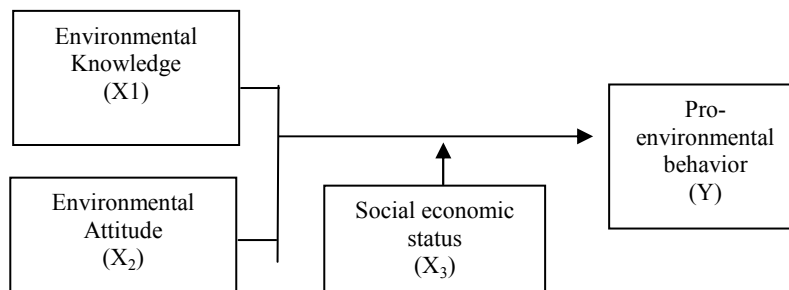
2. IstiqomahWibowo, entitle: “Cleanliness Behavior Pattern: The Study of Environmental Psychology about Urban Waste Management” 2009. The result shows that regular action of collective residents toward waste is a process which shape permanent pattern of cleanliness behavior.

### C. Theoretical Framework

Environmental knowledge is human’s understanding towards the unity of space, things, power, condition, and organism, including human with its behavior which influence other’s survival and welfare. Environmental attitude is a feeling to support or not to support an environmental object including the unity of space with all living or non-living things and conditions inside, be it power, condition, and manner in affecting their live survival at the present or in the future. Social economic status is a family position given by a community. The status is determined by wealth, job, education, and social class.

Someone with positive and pro-environmental behavior tend to show responsible action. However, different situational such as economic condition, social pressure, and opportunities can prevent or strengthen the emerging of that kind of behavior (Hines, Hungerford dan Tomera 1986).

Social economic status of the society strengthens or weakens the influence of knowledge and attitude toward pro-environmental behavior. High social economic status tends to strengthen the effect of knowledge and attitude toward pro-environmental behavior, while lower social economic status tends to weaken the influence of knowledge and attitude towards pro-environmental behavior. Theoretical framework is formulated as follow:



### D. Hypothesis

The hypothesis of this research is formulated below:

1. There is an effect of environment towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.
2. There is an effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.
3. There is an effect of social economic status towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.
4. Social economic status moderates the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.
5. Social economic status moderates the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.

### E. Research Methodology

This research was conducted in Sumber sub-district, Kadipiro sub-district, and Banyuanyar sub-district, Banjarsari District, Surakarta. Those locations were selected for some reasons: (1) There are three village in Banjarsari district in which the inhabitants still do the farming. (2) Local government of Solo gives permission for the research.

This research belongs to quantitative research with path analysis, moderation model. The method used was surveying with quality approach or the study of cause and effect among the four variables. The first variable (free variable) is environmental knowledge ( $X_1$ ) and attitude ( $X_2$ ). Next variable is moderating variable: Social economic status ( $X_3$ ). Bound variable ( $Y$ ) is pro-environmental behavior. This research was analyzed by multivariate statistic with path analysis, moderation model.

The population of the research is 800 peasants in Banjarsari, Surakarta. The research sample is 80 persons. Data collecting uses *Cluster Sampling*. The population is divided into three sub-districts. 10% Sample was chosen by snow ball sampling. Researcher met those working as peasant from three sub-districts and it was limited based on sampling quota. According to SuharsimiArikunto (2006:120), if the population is more than 100, the sample is 10%-16%.

Based on validity test, it can be concluded that the used instruments in the research are all valid because they show p value  $<0.05$ . The result of validity test is attached. Based on reliability test, all the used instruments are reliable because *Cronbach's Alpha*  $> 0.60$ . Thus, the instrument can be used to take research data. Hypothesis test was conducted through t test, F test, and absolute difference value test through SPSS 12 computer program.

### III. DISCUSSION

Descriptive analysis result of the research instruments show:

1. Most of respondent's environmental knowledge (62.5%) belongs to moderate category. It can be described that the peasant community in Banjarsari, Surakarta have enough environmental knowledge.
2. Most of the respondents (66.25%) belong to moderate category. It can be described that the peasant community in Banjarsari, Surakarta have enough good behavior toward the environment.
3. Social economic status shows that 68.75% respondents belong to moderate category. It can be described that respondent's social economic status is considered enough.
4. Attitude shows that 70% of respondent's responses are moderate. Pro-environmental attitude of the peasant community in Banjarsari is good enough.

Normality prerequisite test result with *Kolmogorov-Smirnov* test shows that four variables are normal because *Asymp. Sig* (2-tailed)  $X_1$  shows 0.112,  $X_2$  shows 0.533,  $X_3$  shows 0.122 and Y shows 0.803. Those four show  $> 0.05$ , It passes the normality test.

The result of linearity test of  $X_1$  towards Y shows 0.003,  $X_2$  towards Y shows 0.533,  $X_3$  towards Y show 0.001. All  $< 0.05$ . Between  $X_1$ ,  $X_2$ , and  $X_3$  towards Y show linear relation. It passes the linearity test. If it is observed through scatter diagram, the result of linearity test of those four variables shows a plot showing a scatter diagram. It means that the relation between X and Y variable is linear. It passes linearity test. It based on Siswandari's opinion (1997:32).

Table 8, the result of t Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.961	10.112		2.271	.026
	Pengetahuan Lingkungan Hidup (X1)	1.172	.506	.240	2.316	.023
	Sikap (X2)	.280	.096	.290	2.930	.004
	Status Ekonomi (X3)	.290	.126	.241	2.311	.024

a. Dependent Variable: Perilaku Peduli Lingkungan (Y)

The result of t Test in regression 1 partially show:

- 1) The variable of environmental knowledge ( $X_1$ ) significantly effecting pro-environmental behavior in peasant community in Banjarsari, Surakarta, It is shown by *p value*  $0.023 < 0.05$ .
- 2) The variable of environmental attitude ( $X_2$ ) significantly effecting pro-environmental behavior in peasant community in Banjarsari, Surakarta. It is shown by *p value*  $0.004 < 0.05$ .
- 3) The variable of social economic status ( $X_3$ ) significantly effecting pro-environmental behavior in peasant community in Banjarsari, Surakarta. It is shown by *p value*  $0.024 < 0.05$ .

Table 19, the result of F test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101.726	3	433.909	9.570	.000 <sup>a</sup>
	Residual	45.824	76	45.340		
	Total	147.550	79			

a. Predictors: (Constant), Status Ekonomi (X3), Sikap (X2), Pengetahuan Lingkungan Hidup (X1)

b. Dependent Variable: Perilaku Peduli Lingkungan (Y)

The result of F test show 9.570 with significant level  $0.000 < 0.05$ . Thus, the model used in this research is right to predict pro-environmental behavior.

**Coefficients**

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	77.285	1.408		54.889	.000
	Zscore: Pengetahuan Lingkungan Hidup	1.992	.844	.257	2.361	.021
	Zscore: Status Ekonomi (X3)	2.266	.860	.292	2.634	.010
	X1_X3	-.748	1.227	-.064	-.610	.544

a. Dependent Variable: Perilaku Peduli Lingkungan (Y)

Based on the regression analysis 2, the result of absolute difference value test is shown in table 20. It shows  $ZX_1 - ZX_3$   $0.544 > 0.05$ . It is not significant. It means that social economic status does not moderate the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.

**Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	75.934	1.308		58.043	.000
	Zscore: Sikap	2.379	.792	.307	3.006	.004
	Zscore: Status Ekonomi (X3)	2.398	.796	.309	3.012	.004
	X2_X3	.617	1.014	.062	.609	.545

a. Dependent Variable: Perilaku Peduli Lingkungan (Y)

Based on the regression analysis 3, the result of absolute difference value test is shown in table 21. It shows  $ZX_2 - ZX_3$   $0.545 > 0.05$ . It is not significant. It means that social economic status does not moderate the effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta.

Table 22. The result of Coefficient of Determination Test

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.524 <sup>a</sup>	.274	.246	6.733

a. Predictors: (Constant), Status Ekonomi (X3), Sikap (X2), Pengetahuan Lingkungan Hidup (X1)

Based on the regression analysis 1, the value of *Adjusted R2* is 0.248. It indicates that the effect of environmental effect, attitude, and social economic status towards pro-environmental behavior in peasant community in Banjarsari is 24.6%, while the other is influenced by other unobserved variable.

Based on the analysis of regression 1, regression 2, and regression 3, it can be concluded that:

- Hypothesis 1 states “there is a significant effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari, Surakarta”- proven (supported by analysis)
- Hypothesis 2 states: “there is a significant effect of environmental attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta” proven (supported by analysis)
- Hypothesis 3 states: “there is a significant effect of social economic status towards pro-environmental behavior in peasant community in Banjarsari, Surakarta”- proven (supported by analysis)
- Hypothesis 4 states: “social economic status moderates the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari district, Surakarta”- unproven
- Hypothesis 5 states: “social economic status moderate the effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari district, Surakarta”- unproven

#### IV. RESEARCH RESULT AND DISCUSSION

Based on the results of multiple linear regression analysis and descriptive analysis obtained the following results:

##### 1. The effect of environmental knowledge towards pro-environmental behavior

The result of t test in the analysis of regression 1 shows that environmental knowledge significantly effecting pro-environmental attitude at  $\alpha = 5\%$ . It is proven by *p value*  $0,023 < 0,05$ .

The research result support some theories of some experts mentioned in the theoretical approach:

- Eugene P. Odum, (1997:308) states that in using technology, human needs to concern more on the environment to avoid negative impact on the environment.



b. Daniel D. Chiras, (1991:6-7) states that human mastering various knowledge and technology can give big influence on the environment.

c. Hines, Hungerford, and Tomera (1986) states that: "Attitude is not shaped by its own. It is shaped through learning process. The knowledge about environmental problem and the right action to solve it is required for responsible action".

## **2. The effect of attitude toward pro-environmental attitude**

The result of t test in the analysis of regression 1 shows that attitude significantly effecting pro-environmental attitude at  $\alpha = 5\%$ . It can be proven by  $p\ value 0,004 < 0,05$ . The research result support some theories of some experts mentioned in the theoretical approach:

a. Purwanto (1999:62) states: Purwanto (1999:62) states that attitude is ideas or feelings with the tendency to act as that object's attitude. Attitude can be positive or negative. Positive attitude is an act of approaching, loving, and hoping for specific object. Negative attitude tend to avoid, hate, and dislike specific object.

b. Azwar (2003: 24-28) states conative component is a tendentious aspect to act based on someone's attitude. There is a tendency to react at something in specific way.

c. Hines, Hungerford, and Tomera (1986) states that having knowledge and skills is not enough. Thus, it needs willingness to realize that behavior. Someone's willingness is influenced by characteristics factors. Those are attitude, locus of control, and responsibility.

## **3. The effect of social economic status towards pro-environmental attitude**

The result of t test in the analysis of regression 1 shows that social economic status significantly effecting pro-environmental attitude at  $\alpha = 5\%$ . It is proven by  $p\ value 0,024 < 0,05$ . The result of this research support the theory of some expert mentioned in the theoretical approach: Hines, Hungerford, and Tomera (1986) states that individual with knowledge, skill, and positive attitude towards the environment and pro-environmental behavior tend to show responsible action. Yet, situational factors such as economic condition, social pressure, and opportunities can restrain or enhance that kind of behavior.

## **4. Social economic status does not moderate the effect of environmental knowledge towards pro-environmental knowledge.**

Based on the analysis of regression 2 absolute difference value test obtained the result in table 20. It shows the coefficient or beta  $ZX_1-ZX_3$  as  $-0.064$  with significant level  $0.544 > 0.05$ . It is not significant. Thus, moderation effect of social economic status in the effect of environmental knowledge towards pro-environmental behavior is negative but insignificant. In other words, social economic status does not moderate the effect of environmental knowledge towards pro-environmental knowledge in peasant community in Banjarsari district, Surakarta.

The result of this research support the theory of Hines, Hungerford, and Tomera (1986), individual who has knowledge, skill, and positive behavior toward environment and pro-environmental attitude tend to show responsible action. Yet, situational factors such as economic, social pressure and opportunities can hamper or enhance the possibility of that kind of behavior. This research proves the moderation effect of social economic status in weakening the effect of environmental knowledge towards pro-environmental behavior is insignificant.

## **5. Social economic status does not moderate the effect of attitude toward pro-environmental behavior.**

Based on the analysis of regression 3 absolute difference value test, the result in table 21 shows beta  $ZX_2-ZX_3$  as  $0.062$ . And significance level is  $0.545 > 0.05$  means insignificant. Thus, moderation effect of social economic status in the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta is positive but insignificant.

It can be concluded that although moderation effect of social economic status strengthen environmental knowledge towards pro-environmental behavior, it is insignificant. In other words, social economic status does not moderate environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari district, Surakarta.

## **CONCLUSION**

According to teserach result and discussion, it can be concluded:

1. There is significance effect of environmental knowledge towards pro-environmental behavior in peasant community in Banjarsari, Surakarta, It is proven by  $p\ value 0.023 < 0.05$ .
2. There is significance effect of pro-environmental behavior in peasant community in Banjarsari, Surakarta. It is proven by  $p\ value 0.004 < 0.05$ .
3. There is an effect of social economic status towards pro-environmental behavior in peasant community in Banjarsari, Surakarta. It is proven by  $p\ value 0,024 < 0,05$ .
4. Social economic status does not moderate the effect of environmental knowledge towards pro-environmental behavior. It is proven by the coefficient or beta  $ZX_1-ZX_3 -0.064$  with significance level  $0.544 >$

0.05. It means insignificant. In other words, moderation effect of social economic status in the effect of environmental knowledge towards pro-environmental behavior is enfeebling.

5. Social economic status does not moderate the effect of attitude towards pro-environmental behavior. It is proven by beta  $ZX_2-ZX_3$  0.062 and the significance level  $0.545 > 0.05$ . In other words, moderation effect of social economic status in the effect of attitude towards pro-environmental behavior in peasant community in Banjarsari, Surakarta is strengthening, though it is insignificant.

### Implication and Policy

Based on the research data, the implications are:

1. Environmental knowledge of peasant community in Banjarsari need to be developed to increase better pro-environmental behavior. It can be conducted through the counseling of environmental concept for development.
2. Environmental knowledge of peasant community in Banjarsari need to be developed to increase better pro-environmental behavior. It can be conducted through motivation, environmental discussion, and active participation in environmental preservation.
3. Environmental knowledge of peasant community in Banjarsari need to be developed to increase better pro-environmental behavior. It can be conducted through waste management and the training of used product management into creative product. It will benefit the people in the peasant community.

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