Environmentally Friendly Consumption Behavior Viewed from Economic Learning, Environmental Knowledge, and Peer Influence

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ARTICLE INFO	ABSTRACT
	The purpose of this study was to determine the effect of economic learning, environmental knowledge and peer influence on green consumption behavior in SMA Negeri 4 Semarang students. The type of research used is quantitative. The population in this study were all students of class XI SMA Negeri 4 Semarang as many as 396 students. The number of samples used was 199 students obtained using the slovin formula. The sampling technique used is proportional random sampling. This study uses a questionnaire to collect data. The data analysis technique used is descriptive statistic analysis and multiple linear regression analysis. The results of the study show that economic learning and environmental knowledge has a positive and significant effect on green consumption behavior. Peer influence has no effect on green consumption behavior. The suggestion this study is that teachers can internalize insights about the environment in learning, especially in economics learning, then students are expected to be able to increase their ecological knowledge so that they are able to preserve the environment and be rational in choosing peer environment so that they are wiser in their consumption behaviour.

1. Introduction

Indonesia's economy in 2022 grew by 5.31%, higher compared to the achievement in 2021 which was only 3.70% (Bps.go.id, 2023). Rapid economic growth can drive excessive consumption and exploitation of natural resources, leading to environmental issues exacerbated by population growth and consumption levels, which will negatively impact the living standards of future generations. One environmental issue currently attracting public attention is plastic waste. According to data obtained from the Indonesian Plastic Industry Association (INAPLAS) and the Central Statistics Agency (BPS), plastic waste in Indonesia reaches 64 million tons per year, with 3.2 million tons being plastic waste disposed of in the ocean. This makes Indonesia the second-largest contributor to ocean plastic waste after China (Kkp.go.id, 2018). This is shown in **Table 1**.

The problem of plastic waste, if not addressed promptly, will have negative impacts and can pollute the environment. Considering that plastic takes more than 20 years to decompose in the soil and can even take up to 100 years, it can reduce soil fertility, and if it ends up in water bodies, plastic will be difficult to decompose (Purwaningrum, 2016). If the amount of waste polluting the waters continues to increase each year, it is predicted that by 2050 there will be more plastic than fish. Public awareness of the dangers of

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plastic waste is still minimal, which is suspected to be one of the reasons and causes of why the plastic waste problem in Indonesia has become so severe and complex.

According to Cherian & Jacob (2012) the increasing environmental issues have caused consumers and business practices to start caring about these problems, as the concept of sustainability is one of the important concepts to discuss in this modern business era. In addition, several media outlets also discuss environmental issues such as strict environmental regulations, the continuously evolving environmental issues like the increasing impact of global warming, and industrial impacts that ultimately influence public opinion. Santoso et al. (2021) also state that one of the things that can prevent various environmental damages, especially those caused by human activities, is environmental awareness. From the phenomenon of environmental damage that occurs, efforts are needed to minimize environmental damage by applying eco-friendly or go green concepts in various business fields because maintaining environmental sustainability is the responsibility of all layers of society.

Table 1. Percentage of Waste Composition in Semarang City in 2022

No	Types of Waste	Precentage (%)
1.	Food Waste	60,7%
2.	Plastic	17,2%
3.	Wood/Branches/Leaves	1%
4.	Paper/Cardboard	10,18%
5.	Others	2,88%
6.	Metal	1,22%
7.	Fabric	4,94%
8.	Glass	1,79%
9.	Rubber/Leather	1%
	Total	**100%**

(Source Table: Sipsn.menlhk.go.id, 2022)

Currently, the awareness of the Indonesian public towards the environment is increasing. This can be seen from the development of environmental care movements such as Earth Day, Car Free Day, Bike to Work, and several other movements that support environmental preservation activities and a healthier lifestyle (Utami, 2020). Consumers who care about the environment will be motivated to consume eco-friendly products. Behavior based on environmental concern is also referred to as green consumption behavior. This behavior is reflected in the actions of individuals when searching for, purchasing, using, evaluating, and disposing of products (Siringi, 2012). Meanwhile, individuals who make purchases with consideration of the environmental impact of the products they consume are referred to as green consumers.

Green Consumer Behavior can also be defined as consumer behavior that applies environmental awareness in every consumption action. This environmentally friendly consumption behavior refers to a type of consumption behavior that minimizes the negative impact of consumption on the environment throughout the entire process of purchasing, using, and disposing of products, especially during the product purchase phase. However, environmentally friendly consumption behavior is not only focused on purchasing environmentally friendly products but also starts with saving energy usage such as electricity, water, and fuel, reducing air conditioning usage, avoiding excessive use of plastic, recycling packaging, plastic, paper, and cardboard, as well as purchasing environmentally friendly products (Cruz & Prabawani, 2017).

Consumers who have environmental awareness can help solve environmental problems by contributing to environmental preservation actions through green consumption. Young consumers are a group of consumers who not only care about the current environmental damage but also pay attention to the impact in the future (Fitri & Simanjuntak, 2022). This is supported by the research of Yadav & Pathak (2016) that young consumers tend to buy environmentally friendly products (green product).

Based on the results of the 2020 population census, the young population is the group that dominates the number of residents in Indonesia. The Indonesian population classified as young people is Generation Z, born between 1997 and 2012, with the number of Generation Z reaching 75.49 million individuals (Badan Pusat Statistik, 2020). In this case, high school students belong to the group of young consumers whose position will be very crucial in the next ten years, as they will be the policymakers who can determine the direction of environmental management. If every individual becomes accustomed to practicing environmentally friendly behavior, then it is not impossible for the phenomenon of environmental degradation to become very rare.

Based on data from the Kementerian Lingkungan Hidup dan Kehutanan (KLHK) in , there are 4,726 schools that have received the National Adiwiyata and Independent Adiwiyata awards from 34 provinces in Indonesia (Kementerian LHK, 2021). One of the schools that has successfully achieved the Adiwiyata school designation is SMA Negeri 4 Semarang. Since 2017, SMA Negeri 4 Semarang has received the city-level Adiwiyata school award, and then became the best national-level Adiwiyata school in 2021 (Dinas Lingkungan Hidup Kota Semarang, 2021). The award received was in conjunction with the national-level award from Semarang State University through the UNNES Green School Ranking (UGSR) program, and the list of UGSR award recipients is presented in the **Table 2**.

UGSR is a National Green School Ranking related to the sustainability of vision, mission, and conservation-based programs as well as environmental preservation efforts implemented in junior high schools and senior high schools/equivalents. UNNES initiated UGSR with the intention of inviting schools to collectively make conservation a mainstream educational policy. UNNES is a higher education institution that focuses on producing education scientists and educators for elementary and secondary school levels. The 2021 UGSR was participated in by 44 junior high and senior high schools in Indonesia. There are 6 assessment indicators used in UGSR, namely Site and Infrastructure, Energy and Climate Change, Waste Management, Water Management, Transportation, Education, and Supporting Activities.

Table 2. Daftar Sekolah Penerima Penghargaan UGSR Tingkat SMA/Sederajat

No	Sustainable School Category for High School/Equivalent
1.	SMA N 1 Ajibarang
2.	SMA N 1 Bandar
3.	SMK Roudlotul Mubtadiin Nalumsari
4.	SMA N 1 Purwareja Klampok
5.	SMK Veteran 1 Sukoharjo
6.	SMA N 1 Karangkobar
7.	**SMA N 4 Semarang**
8.	SMA N 1 Randublatung
9.	SMA N 2 Blora
10.	SMA N 2 Purwokerto

(Source Table: konservasi.unnes.ac.id)

SMA Negeri 4 Semarang, as one of the schools awarded the national Adiwiyata title and the UGSR award, certainly requires the school to implement various programs that can enhance environmental awareness, including eco-friendly consumption behaviors among the school community, especially the students. This is supported by the statement of the deputy principal for curriculum through an interview result, which stated that since 2017, the "GEMERLAP" program, or Movement Against Plastic Waste, has been launched. With this program, there is a ban on using plastic in the school area. This can be seen with the provision of a healthy canteen where single-use plastic drink packaging is not sold, but instead, reusable containers are used.

In addition, there is an appeal for students and teachers to bring their own drinking bottles. Thus, there has been a decrease in the production of inorganic waste, or the production of the waste bank at SMA Negeri 4 Semarang is very minimal. There are also other programs to foster environmentally friendly behavior among students, such as the Love for Plants and Animals Day, which is commemorated every November 5th. The aim is to increase awareness, protection, and preservation of national flora and fauna, as well as to cultivate and remind the importance of flora and fauna in life. Then, once a year, coinciding with the anniversary of SMA Negeri 4 Semarang, a program to plant one million trees is organized by the entire school community.

Various pro-environment policies that have been implemented at SMA Negeri 4 Semarang are certainly aimed at fostering environmental awareness and concern, which can be realized through environmentally friendly consumption behaviors by students. The following is a table of initial observations regarding environmentally friendly consumption behaviors conducted among 100 students. This is shown in **Table 3**.

Table 3. Results of Observing Environmentally Friendly Consumption Behavior

Criteria	Yes	No
Bringing a personal tumbler/drinking bottle	61%	39%
Bringing packed meals to school	22%	78%
Utilizing used items through recycling	18%	82%

Criteria	Yes	No
Saving electricity in the classroom	94%	6%
Efforts to reduce carbon emissions	33%	67,%
Using shopping bags	11%	89%
Using single-use packaged products	41%	59%
Using environmentally friendly products	58%	42%

(Source: Data Primer Diolah, 2023)

Based on Table 1.3, the results of the observation regarding the criteria for environmentally friendly consumption behavior show that 39 percent of respondents are not yet accustomed to bringing a water bottle to school, 78 percent do not bring food from home to school, 82 percent have not utilized used items through the recycling process, and 94 percent save electrical energy by turning off the AC/fan/lights when they are no longer in use in the classroom. Additionally, 67 percent of respondents are still reluctant to use public transportation or vehicles that emit the least amount of emissions, such as bicycles, as a form of effort to reduce carbon emissions, and prefer to use private vehicles instead. The next criteria related to the use of bags/containers when shopping, the consumption of single-use products, and eco-friendly products are 11 percent, 41 percent, and 58 percent, respectively. This shows that the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang is still not optimal. Seeing this phenomenon, it becomes an issue that needs to be addressed.

According to Setyanto (2018) environmentally friendly consumption behavior can be fostered through the enhancement of consumer knowledge and education. Solekha (2019) revealed that environmentally friendly consumption behavior is one form of embodying an environmentally caring character, which can be interpreted as self-awareness in each individual to maintain and preserve the environment. This environmentally conscious character can be implemented through education, one of which is in economics learning. Kasih et al. (2016) revealed that learning activities conducted within the school environment play a crucial role in teaching green consumption behavior. In understanding economics, it is not only about maximizing profits and minimizing costs but also about the belief that life is not solely economic; it also requires attention to environmental sustainability. This is because the implementation of economics education does not only teach theory but also involves consumption activities, such as buying environmentally friendly products and their utilization, as well as committing to addressing environmental issues by participating in natural resource conservation and preserving the environment, which is reflected in good behavior both at school and in the community. Research conducted by Nurkholisoh, (2020) shows that there is a significant influence of economics education on environmentally friendly behavior.

Another factor that is believed to influence environmentally friendly consumption behavior is environmental knowledge. Environmental knowledge is a set of ecological knowledge possessed by individuals regarding the environment (Chen, 2013). Environmental knowledge or knowledge about environmental issues refers to the information individuals have about the state of the environment, climate change, environmental perspectives, and the ecological impacts of consumption and production (Pagiaslis dan Krontalis, 2014). Recent research findings indicate that in countries with higher Gross National Income (GNI) per capita, the level of environmental knowledge among their populations is also high. This indicates that in many countries, environmental literacy has increased along with their overall wealth growth (Parker, Sharon K, 2017). Research conducted by Saari et al., (2021) on consumers in Europe shows that sustainable consumption behavior can be linked to environmental concern influenced by the level of environmental knowledge.

Environmentally friendly consumption behavior can also be influenced by external factors such as peers or peer influence. Peer influence is seen as an impetus to initiate certain actions. This is because support from peers can influence individuals to adopt norms within their group, thereby collectively changing individual purchasing behavior to embrace green principles (Kumar, 2014). Previous studies have revealed a significant relationship between peer influence (friends, colleagues, family) and consumer purchasing behavior regarding green products (Mohd Suki & Mohd Suki, 2019). Then the research conducted by Trikrisna & Rahyuda (2014) also shows that peer influence and environmental knowledge have a positive impact on the purchase behavior of green products.

Based on the aforementioned background and relevant previous studies, the researchers are interested in examining whether there is an influence of economic learning, environmental knowledge, and peer influence on environmentally friendly consumption behavior among students of SMA Negeri 4 Semarang, by formulating the title of this research as "The Influence of Economic Learning, Environmental Knowledge, and Peer Influence on the Environmentally Friendly Consumption Behavior of SMA Negeri 4 Semarang Students." The objectives of this research are to determine the influence of economic learning on

the environmentally friendly consumption behavior of SMA Negeri 4 Semarang students, to determine the influence of environmental knowledge on the environmentally friendly consumption behavior of SMA Negeri 4 Semarang students, and to determine the influence of peer influence on the environmentally friendly consumption behavior of SMA Negeri 4 Semarang students.

In this study, the consumer behavior theory proposed by Kotler & Keller (2009) is used. In understanding consumers, Kotler developed a consumer behavior model influenced by certain stimuli such as a group of consumer psychological processes, consumer characteristics, and marketing and environmental stimuli, which will result in the decision-making process and the final purchasing decision of consumers.

Environmentally friendly consumer behavior is closely related to aspects of economic learning, knowledge of the environment, and external factors that influence someone to behave in an environmentally friendly manner, such as peer influence. This can be seen in consumers who implement economic learning not only by studying theory but also by applying environmentally friendly behavior in their consumption activities by purchasing environmentally friendly products. Rational consumers certainly also have knowledge and understanding of the environment and are committed to preserving and providing solutions to every environmental issue. In addition, support from peers also encourages consumers to pay attention to environmental sustainability, one of which is by adopting environmentally friendly consumption behaviors in their daily lives.

H1 : Economic Learning Has a Positive and Significant Impact on Environmentally Friendly Consumption Behavior

Research conducted by Samini et al. (2022) states that economic education has a positive impact on students' environmentally friendly consumption behavior. Based on this, it can be indicated that the implementation of good economic education will enhance students' environmentally friendly consumption behavior. This finding is also supported by research conducted by Atmojo (2016) which states that there is an influence of economic education on environmentally conscious economic behavior among students of the IPS program at MAN 1 Jombang. This means that by improving environment-based economic education, it will shape environmentally conscious economic behavior among students of the IPS program at MAN 1 Jombang.

H2 : Environmental Knowledge Has a Positive and Significant Impact on Eco-Friendly Consumption Behavior

Saari et al. (2021) state that environmental knowledge is considered important for actively changing consumption behavior, where individuals with more knowledge about environmental issues tend to show a positive attitude towards the environment and are likely to improve their behavior towards sustainable or green consumption. Research on consumers in Europe conducted by Saari et al. (2021) shows that sustainable consumption behavior can be linked to environmental concern influenced by increased environmental knowledge. This means that the better the environmental knowledge possessed by consumers, the more it will enhance environmentally friendly consumption behavior. These results are also supported by research conducted by Lin & Niu (2018) on consumers in Taiwan, which shows that consumers' environmental knowledge positively affects their intentions and purchasing behavior towards environmentally friendly products. This indicates that the higher the environmental knowledge possessed by consumers, the greater their intention to purchase environmentally friendly products.

H3 : Peer Influence Has a Positive and Significant Impact on Environmentally Friendly Consumption Behavior

The relationships among peers in adolescents are more intense, close, and influential because at this stage it is very important for adolescents to be accepted in their peer groups (Lee, 2011). Based on research conducted by Lee (2011), it was found that peers have the greatest influence on adolescents in Hong Kong regarding green purchasing behavior. This is supported by the research of Mohd Suki & Mohd Suki (2019), which reveals that peer influence has a positive effect on consumers' green purchasing behavior. The findings in this study conclude that recommendations from peers are very strong because young consumers are inclined to act in the same way as their friends and uphold subjective norms. This means that the greater the encouragement from peers, the higher the likelihood that consumers will develop their green purchasing behavior. In this study, students of SMA Negeri 4 Semarang fall into the category of adolescents who are suspected to be encouraged by their interactions with peers to adopt environmentally friendly consumption behaviors.

Based on the above description, there is a relationship between economic education, environmental knowledge, and peer influence with environmentally friendly consumption behavior. This relationship is then formulated into a research paradigm, which can be illustrated in the framework scheme as shown in the following Figure 1.
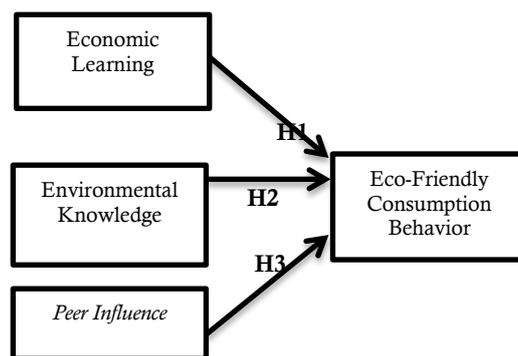
Figure 1. Framework of Thought
Source: Peneliti, 2023

2. Methods

This type of research uses a quantitative approach because the data presented are related to numbers and use statistical analysis. According to Sugiyono (2016), the quantitative approach can be defined as a research method based on positivist philosophy used to study a specific population or sample by collecting data using research instruments and analyzing the data statistically with the aim of testing the established hypothesis. The sampling technique is the method used by researchers to determine the sample that will be used in the study (Sugiyono, 2016).

The method used is a survey, and the research design employed is causality, which is a research design aimed at investigating the possibility of a cause-and-effect relationship between variables. In this study, there are independent variables and dependent variables. This study aims to determine whether the independent variables of economic learning (X1), environmental knowledge (X2), and peer influence have an effect on the dependent variable of environmentally friendly consumption behavior (Y) of students at SMA Negeri 4 Semarang.

According to Sugiyono (2016) adalah a population is the entire object/subject that has certain quantities and characteristics determined by the researcher to be studied and then concluded. In this study, the population consists of 396 students from the XI grade at SMA Negeri 4 Semarang. The XI grade students at SMA Negeri 4 Semarang are chosen as research subjects because they have already covered a lot of economic material and have a better understanding of economic concepts compared to the X grade students. The number of XI grade students at SMA Negeri 4 Semarang is shown in the **Table 4**.

Table 4. Number of XI grade students at SMA Negeri 4 Semarang

No	Class	Amount
1.	XI MIPA 1	36
2.	XI MIPA 2	36
3.	XI MIPA 3	36
4.	XI MIPA 4	36
5.	XI MIPA 5	36
6.	XI MIPA 6	36
7.	XI MIPA 7	36
8.	XI MIPA 8	36
9.	XI MIPA 9	36
10.	X1 IPS 1	36
11.	X1 IPS 2	36
Total		**396**

(Source Table : Data SMA N 4 Semarang)

In this study, the sampling technique used is probability sampling in the form of proportional random sampling, which involves taking samples from each group proportionally.

This sampling is conducted randomly among students by considering the proportion of 11 classes at SMA Negeri 4 Semarang, namely XI MIPA 1, XI MIPA 2, XI MIPA 3, XI MIPA 4, XI MIPA 5, XI MIPA 6, XI MIPA 7, XI MIPA 8, XI MIPA 9, XI IPS 1, and XI IPS 2. Therefore, each class

included in the population is represented. Based on the calculation results using the proportional allocation formula, the number of samples studied is 199 students from SMA Negeri 4 Semarang.

The data collection technique in this study is by using a questionnaire. (angket). According to Sugiyono (2016), a questionnaire is a data collection technique conducted by providing a set of written questions or statements to respondents for them to answer. The data validity techniques used in this study are validity tests and reliability tests. The data analysis techniques in this study are descriptive statistical analysis and multiple regression analysis. Multiple regression analysis consists of prerequisite tests including normality tests and linearity tests, and classical assumption tests including multicollinearity tests and heteroscedasticity tests. And the hypothesis test used in this research is the partial statistical test (t-test). The last one is the coefficient of determination test, which is the partial coefficient of determination.

3.   Results and Discussions
Descriptive Analysis

Descriptive statistical analysis aims to describe and test the influence of independent variables on the dependent variable in the research to make it easy to understand. This descriptive statistical analysis aims to describe respondents' answers to economic learning (X1), environmental knowledge (X2), peer influence (X3), and environmentally friendly consumption behavior (Y). The number of respondents in this study was 199 respondents.

Descriptive Analysis of Eco-Friendly Consumption Behavior (Y)

In **Table 5**, the lowest (minimum) value for the environmentally friendly consumption behavior variable is 15, and the highest (maximum) value is 44. The average (mean) value for the environmentally friendly consumption behavior variable is 34.38 and the standard deviation is 3.925. The research results show that the standard deviation is smaller than the mean, which means that the data distribution is uniform.

Table 5. Descriptive Statistics of Environmentally Friendly Consumption Behavior (Y)

	N	Minimum	Maximum	Mean	Std. Deviation
Y	199	15	44	34,38	3,925
Valid N (listwise)	199				

(Source: Data processed in 2023)

Descriptive Analysis of Economic Learning (X1)

Table 6. The lowest (minimum) value in the economic learning variable is 18 and the highest (maximum) value is 44. The average (mean) of the economic learning variable is 32.41 and the standard deviation of 4.516. The research results show that the standard deviation value is smaller than the average value, which means that the data distribution is uniform.

Table 6. Deskriptif Statistik Pembelajaran Ekonomi (X1)

	N	Minimum	Maximum	Mean	Std. Deviation
Y	199	18	44	32,41	4,516
Valid N (listwise)	199				

(Source: Data processed in 2023)

Descriptive Analysis of Environmental Knowledge (X2)

Table 7. The lowest (minimum) value on the environmental knowledge variable is 10 and the highest (maximum) value is 40. The average (mean) environmental knowledge is 50.49 and the standard deviation is 3.882. The research results show that the standard deviation value is smaller than the average value, which means that the data distribution is uniform.

Table 7. Descriptive Statistics of Environmental Knowledge (X2)

	N	Minimum	Maximum	Mean	Std. Deviation
Y	199	10	40	32,59	3,882
Valid N (listwise)	199				

(Source: Data processed in 2023)

Descriptive Analysis of Environmental Knowledge (X3)

Table 8. The lowest (minimum) value on the peer influence variable is 17 and the highest (maximum) value is 68. The average (mean) peer influence is 49.28 and the standard deviation is 8.102.

Table 8. Descriptive Statistics Peer Influence (X3)

	N	Minimum	Maximum	Mean	Std. Deviation
Y	199	17	68	49,28	8,102
Valid N (listwise)	199				

(Source: Data processed in 2023)

Normality Test

This normality test aims to determine whether the variable is normally distributed or not. A good regression model is normally distributed or approximately normal. According to Ghozali (2016), as it is known that the t-test and F-test assume that the residual values follow a normal distribution. Normality test in this study use Kolmogorov Smirnov Test, then indicates that the regression model meets the normality assumption, meaning the data is normally distributed. The research results show that the standard deviation value is smaller than the average value, which means that the data distribution is uniform.

Based on Table 9, it can be seen that the Asymp. Sig. (2-tailed) value is 0.099. Since the Asymp. Sig. (2-tailed) value is greater than 0.05 in the One-Sample normality test using the Kolmogorov-Smirnov (K-S) statistical test with the help of IBM SPSS Statistics 23, if the probability value > 0.05, then the research data is normally distributed. The results of the data normality test using the Kolmogorov-Smirnov Test in this study can be seen in Table 9.

Table 9. Results of the Data Normality Test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		199
Normal Parameters	Mean	,0000000
	Std. Deviation	,21677987
Most Extreme Differences	Absolute	,058
	Positive	,058
	Negative	-,057
Kolmogorov-Smirnov Z		,058
Asymp. Sig. (2-tailed)		,099

(Source: Data processed in 2023)

Multicollinearity Test

The multicollinearity test is a situation that indicates a correlation or strong relationship between two or more independent variables in a multiple regression model. The purpose of this test is to determine whether the regression model shows a correlation among the independent variables. A good regression model should not have a correlation among the dependent variables. To detect the presence of multicollinearity can be seen from the tolerance value and Variance Inflation Factor (VIF). If the tolerance value $\geq$ 0.10 and the VIF value $\leq$ 10, then the regression model does not exhibit multicollinearity. The calculation of the multicollinearity test results in this study can be seen in Table 10.

Table 10. Multicollinearity Test Results

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	7,522	1,677		4.486	,000		
Economic Learning	,203	,049	,233	4,098	,000	,676	1,479
Environmental Knowledge	,550	,060	,544	9,105	,000	,614	,1,630
Peer Influence	,048	,029	,099	1,669	,097	,627	1,596

(Source: Data processed in 2023)

Based on **Table 10**, the results of the multicollinearity test show that the economic learning variable has a tolerance value of 0.676, the environmental knowledge variable has a tolerance value of 0.614, and the peer influence variable has a tolerance value of 0.627.

Heteroskedasticity Test

Meanwhile the Heteroskedasticity Test aims to examine whether the regression model exhibits unequal variance of residuals from one observation to another. Citations in the discussion should not be too lengthy. (bila perlu dihindari). Citations of research results or other people's opinions should be summarized and written in your own words. (tidak menggunakan kalimat yang persis sama). A collection of similar studies can be cited collectively. The test for heteroscedasticity was conducted using the Glejser test in **Table 11**.

Based on Table 11 from the Glejser test to determine the presence or absence of heteroscedasticity, the significance values obtained were 0.252 for the economic learning variable, 0.127 for the environmental knowledge variable, and 0.993 for the peer influence variable.

Table 11. Results of the Heteroscedasticity Test

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,213	1,072		1,131	,260
Economic Learning	-,036	,032	-,099	-1,149	,252
Environmental Knowledge	,059	,036	,139	1,533	,127
Peer Influence	,000	,018	-,001	-,009	,993

(Source: Data processed in 2023)

Conclusions

The conclusion should be an answer to the research question and should not be expressed in statistical sentences. Written in a single paragraph in essay form, not in numerical form. For the VIF values, the economic learning variable is 1.479, the environmental knowledge variable is 1.630, and the peer influence variable is 1.596. Thus, it can be concluded that there is no multicollinearity among the independent variables in this regression model.

All independent variables have significance values greater than 0.05, or > 0.05, so it can be concluded that there is no issue of heteroscedasticity in the regression model of this study.

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine whether or not there is an influence of the variables of economic learning, environmental knowledge, and peer influence on environmentally friendly consumption behavior.

Based on **Table 12**, the results of the multiple linear regression analysis above show the following multiple linear regression equation:

$Y = 7{,}552 + 0{,}203 X_1 + 0{,}550 X_2 + 0{,}048 X_3 + e$

Table 12. Multiple Linear Regression Analysis
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7,522	1,677		4,486	,000
Pembelajaran Ekonomi	,203	,049	,233	4,098	,000
Pengetahuan Lingkungan	,550	,060	,544	9,105	,000
Peer Influence	,048	,029	,099	1,669	,097

(Source: Data processed in 2023)

The regression equation can be broken down as follows:
a. The regression coefficient for the economic learning variable is 0.203, which is positive, meaning that if other independent variables remain constant and economic learning increases by 1, the environmentally friendly consumption behavior (Y) will increase by 0.203. Additionally, a significance value of 0.000 was obtained, which is less than 0.05, indicating a significant influence of economic learning on environmentally friendly consumption behavior. Thus, it can be concluded that the hypothesis in H1, which states "There is a positive and significant effect of economic learning on environmentally friendly consumption behavior," is accepted.
b. The regression coefficient of the environmental knowledge variable is 0.550, which is positive, meaning that if other independent variables remain constant and environmental knowledge increases by 1, the environmentally friendly consumption behavior (Y) will increase by 0.550. Furthermore, the value obtained.
    The results of the multiple linear regression analysis were conducted with the help of the IBM SPSS Statistic 23 program, as shown in the following **Table 12**:
a. A significance level of 0.000, which is less than 0.05, indicates a significant influence of environmental knowledge on environmentally friendly consumption behavior. Therefore, it can be concluded that the hypothesis in H2, which states "There is a positive and significant influence of environmental knowledge on environmentally friendly consumption behavior," is accepted.
b. The regression coefficient for the peer influence variable is 0.048, which is positive, meaning that if other independent variables remain constant and peer influence increases by 1, the environmentally friendly consumption behavior (Y) will increase by 0.048. Additionally, a significance value of 0.097 was obtained, which is greater than 0.05, indicating that there is no significant influence of peer influence on environmentally friendly consumption behavior. Thus, it can be concluded that the hypothesis in H3, which states "There is a positive and significant influence of peer influence on environmentally friendly consumption behavior," is rejected.
    Based on the partial test results in Table 12, the economic learning variable obtained a t-value of 4.098 > the t-table value of 1.972 and a significance of 0.000 < 0.05. This indicates that economic education has a positive and significant effect on environmentally friendly consumption behavior, thus H1, which states "There is a positive and significant effect of economic education on environmentally friendly consumption behavior," is accepted.
    On the environmental knowledge variable, a t-value of 9.105 was obtained, which is greater than the t-table value of 1.972, and a significance level of 0.000, which is less than 0.05. This indicates that environmental knowledge has a positive and significant effect on environmentally friendly consumption behavior, thus H2, which states "There is a positive and significant influence of environmental knowledge on environmentally friendly consumption behavior," is **accepted**.

Partial Test (T-test)
    The partial test aims to determine the influence of each independent variable on the dependent variable. The results of the partial hypothesis through the IBM SPSS Statistic 23 program are shown in **Table 13**.

Table 13. Partial Test (T-Test)

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7,522	1,677		4,486	,000
Economic Learning	,203	,049	,233	4,098	,000
Environmental Knowledge	,550	,060	,544	9,105	,000
Peer Influence	,048	,029	,099	1,669	,097

(Source: Data processed in 2023)

Next, the peer influence variable obtained a t-value of 1.669 < t-table of 1.972 and a significance of 0.097 > 0.05. This indicates that peer influence does not have a significant effect on environmentally friendly consumption behavior, thus H3, which states "There is a positive and significant influence of peer influence on environmentally friendly consumption behavior," is **rejected**. Squaring the values in the partial correlation column and converting them into percentages. The value of the coefficient of determination ranges from zero to one; the closer it gets to one, the greater the influence of the independent variable on the dependent variable individually. The test results can be seen in **Table 13**.

Simultaneous Coefficient of Determination Test (r^2)

The partial coefficient of determination (r^2) is used to measure the extent of each variable's contribution by **Table 14**.

Table 14. Results of the Partial Determination Coefficient Test (r2)

Coefficients

Model	Correlations		
	Zero-order	Partial	Part
Learning Economics	,560	,282	,192
Environmental Knowledge	,718	,546	,426
Peer Influence	,519	,119	,078

(Source of the table: Data yang diolah, 2023)

Based on **Table 14**, it can be seen in the partial correlation value column that the variable of economic learning towards environmentally friendly consumption behavior is 0.282, so the influence of the economic learning variable on environmentally friendly consumption behavior is 0.282^2 x 100% = 8%. The environmental knowledge variable towards environmentally friendly consumption behavior is 0.546, so the influence of the environmental knowledge variable on environmentally friendly consumption behavior is 0.546^2 x 100% = 30%. Next, the peer influence variable towards environmentally friendly consumption behavior is 0.119, so the influence of the peer influence variable on environmentally friendly consumption behavior is 0.119^2 x 100% = 1%. Therefore, it can be concluded that the environmental knowledge variable has the greatest influence on environmentally friendly consumption behavior, which is 30%.

Discussions

Based on the results of the research data calculations that have been tested, statistical analysis has provided evidence that this research model is valid and acceptable. Likewise, the results of the proposed research hypothesis testing have obtained overall results. The discussion regarding the research results is outlined as follows:

The Influence of Economic Learning on Environmentally Friendly Consumption Behavior

The hypothesis test results (t-test) obtained a t-value of 4.098, which means this value is greater than the t-table value of 1.972 with a significance of 0.000, which is less than 0.05. Furthermore, the results of the multiple linear regression analysis in this study regarding the influence of economic learning on environmentally friendly consumption behavior, as shown in Table 12, indicate a B value in the Unstandardized Coefficients of 0.203 with a significance value of 0.000 < 0.05, thus H1 is accepted. From these results, it is significant that the better the economics education conducted at SMA Negeri 4 Semarang, the more the students' environmentally friendly consumption behavior will increase.

In the consumer behavior theory proposed by Kotler and Keller (2009), economic learning can influence consumers to buy or consume a product due to the encouragement through psychological factors, namely learning. By studying economics, it is hoped that students can have an understanding and mastery of basic economic concepts so that they can engage in economic activities correctly. If students have a good basic knowledge of economics, their economic behavior will improve, and thus their consumption patterns will become more rational, for example, by adopting environmentally friendly consumption behaviors.

This is evident in the implementation of economics education at SMA Negeri 4 Semarang, which is already good. The economics teacher masters the learning material, and the teaching and learning activities run smoothly, with the majority of students in the XI grade at SMA Negeri 4 Semarang directly involved in the learning activities. As a result, the values and economic theories they have learned can be easily implemented in daily life, including in environmentally friendly consumption behavior. However, some students have not yet shown a high level of interest and enthusiasm for economics learning, so innovation in teaching is needed to encourage students to like the subject. Thus, students who study and understand economics seriously will have a wise and rational attitude in making their economic decisions.

The results of this study are in line with the research conducted by Samini et al. (2022) which found that economic education has a positive effect on the environmentally friendly consumption behavior of students at SMA Negeri 1 Ajibarang. The research results from Atmojo (2016) also state that economic education has a positive and significant effect on the environmentally conscious economic behavior of students in the IPS program at MAN Jombang.

The Influence of Environmental Knowledge on Eco-Friendly
Consumption Behavior

The hypothesis test results (t-test) obtained a t-value of 9.105, which means this value is greater than the t-table value of 1.972 with a significance of 0.000, which is less than 0.05. The results of the multiple linear regression analysis in this study regarding the influence of environmental knowledge on eco-friendly consumption behavior, as shown in table 12, indicate an unstandardized coefficient B value of 0.550 with a significance value of 0.000 < 0.05, thus H2 is accepted. From these results, it means that the higher the environmental knowledge, the higher the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang.

In the consumer behavior theory by Kotler and Keller (2009), environmental knowledge falls under the psychological factor of learning, which can influence consumers to consume environmentally friendly products. When making decisions about their consumption behavior, a person can act or behave according to the knowledge they have acquired through the learning process. In this study, environmentally conscious consumers tend to have the character to maintain the environment well, not only by exploiting it but also by being able to address the environmental issues that arise from such actions by choosing environmentally friendly products or green products compared to other products.

Based on this, it can be proven that SMA Negeri 4 Semarang is one of the Adiwiyata schools in Semarang City, thus contributing to the Adiwiyata program in enhancing students' environmental knowledge. For example, students are actively involved in the implementation of the Adiwiyata program by adhering to all rules, such as maintaining the cleanliness and sustainability of the school environment by disposing of waste according to the type of organic or inorganic waste, greening activities through the planting of a thousand trees held once a year on the anniversary of SMA Negeri 4 Semarang, bringing their own drinking water bottles to avoid using single-use plastic packaging, and participating in water and energy conservation.

The results of the study are in line with the research by Lin & Niu (2018) that environmental knowledge has a positive and significant impact on the purchasing behavior of green products among consumers in Taiwan. The results of the study by Ginting & Ekawati (2016) also mention that environmental knowledge has a positive and significant impact on the intention to buy green products and environmental concern. Then, the research conducted by 'Ammar & Kuswati (2022) found that environmental knowledge has a significant direct impact on students' sustainable consumption. This is consistent with the research by Putri et al. (2021) that environmental knowledge has a positive and significant effect on the purchase intention of The Body Shop's green cosmetic products in Denpasar City.

The Influence of Peer Influence on Environmentally Friendly

Consumption Behavior Based on the results of the partial test (t-test), the calculated t-value is 1.669, which is less than the t-table value of 1.972, with the significance of the peer influence variable on environmentally friendly consumption behavior being 0.097, greater than 0.05. Meanwhile, the results of the multiple linear regression analysis in this study regarding the influence of peer influence on environmentally friendly consumption behavior, presented in table 4.19, show an unstandardized coefficient value of B at 0.048 with a significance value of 0.097 > 0.05. The results indicate that there is no significant influence between the peer influence variable and environmentally friendly consumption behavior, thus H3

is rejected. From the results, it means that the better the peer influence, the lower the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang.

    Peers in social life are an important part of entering adolescence and adulthood because they can influence a person's actions or behavior. The influence of peers at SMA Negeri 4 Semarang was found through social interactions, including the learning process that occurs in the classroom, such as group study activities and discussing matters together in groups. However, the students of SMA Negeri 4 Semarang have very strong self-control over their consumption behavior, so external influences such as peers are not sufficient to motivate consumers to engage in environmentally friendly consumption, such as purchasing eco-friendly products. This is because the most important factor in encouraging someone to behave is the internal factor within the consumer, such as the knowledge and learning they have acquired. Therefore, if their commitment to caring for the environment is strong, the influence of peers will only be supportive and not the primary influence.

    Peer Influence or peer pressure in consumer behavior theory by Kotler and Keller (2009) is part of consumer characteristics, specifically the social factor that can influence consumers to make purchases. However, in this study, peer influence does not have an impact on environmentally friendly consumption behavior. The results of this study do not support previous research conducted by Septariana & Pratomo (2018) which stated that peer influence has a positive effect on green buying behavior. However, this study is in line with the research by Har et al. (2015) which suggested that peer influence does not have a significant effect on the intention to buy environmentally friendly products among consumers in Malaysia. Furthermore, the results of this study are also supported by the findings of Alhally (2020) which state that peers do not influence the intention to purchase environmentally friendly products among consumers in Banjarmasin.

4. Conclusions

    Based on the analysis and discussion that have been outlined, the conclusions of this research are as follows: (1) Economic learning has a positive and significant effect on the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang, (2) Environmental knowledge has a positive and significant effect on the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang, (3) Peer influence does not have a significant effect on the environmentally friendly consumption behavior of students at SMA Negeri 4 Semarang.

    Based on the research findings, the recommendations or suggestions that can be provided in this study include: (1) teachers can enhance students' environmentally friendly consumption behavior by internalizing environmental knowledge in learning, especially in economics education, regarding the importance of environmentally friendly consumption behavior, (2) students should further increase their knowledge about the environment, so they can participate in preserving the environment, one of which is by consuming environmentally friendly products in their daily lives, (3) the school should be more intensive in promoting students' environmentally friendly consumption behavior, which directly influences internal factors within the students of SMA Negeri 4 Semarang, such as organizing environmental and nature love campaigns.

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