

**THE INFLUENCE OF PRODUCT KNOWLEDGE ON GREEN PURCHASE INTENTION,  
THE ROLE OF ATTITUDE AS MEDIATING VARIABLE****PENGARUH PENGETAHUAN PRODUK TERHADAP NIAT BELI HIJAU, PERAN SIKAP SEBAGAI  
VARIABEL MEDIASI**

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**Abstract:** Environmental issues have occurred since the industrial era and are finally realized by many companies and consumers because the impact is very detrimental to all creatures on earth nowadays. Afterwards, companies started to make environmental friendly products because of moral responsibilities and demands from the regulators in many countries. In the marketing context, companies also implemented green marketing to stimulate factors that can support consumer's green purchase intention. This study aims to analyze the influence of product knowledge and attitudes toward green products on the green purchase intention directly and indirectly. The sampling used in this study was 120 qualified respondents employing a purposive sampling technique. The analysis tool utilized in this study was PLS-SEM using SmartPLS version 3.2.9. Based on the analysis, product knowledge and attitudes toward green products had a significant influence on green purchase intention directly and indirectly.

**Keywords:** product knowledge, attitude, green purchase intention

**Abstrak:** Permasalahan lingkungan sudah terjadi sejak era industri dan akhirnya disadari oleh banyak perusahaan dan konsumen karena dampaknya sangat merugikan seluruh makhluk di bumi saat ini. Setelah itu, perusahaan mulai membuat produk ramah lingkungan karena tanggung jawab moral dan tuntutan dari regulator di banyak negara. Dalam konteks pemasaran, perusahaan juga menerapkan green marketing untuk menstimulasi faktor-faktor yang dapat mendukung niat beli hijau konsumen. Penelitian ini bertujuan untuk menganalisis pengaruh pengetahuan produk dan sikap terhadap niat beli hijau secara langsung dan tidak langsung. Pengambilan sampel yang digunakan dalam penelitian ini adalah 120 responden yang memenuhi syarat dengan teknik purposive sampling. Alat analisis yang digunakan dalam penelitian ini adalah PLS-SEM dengan menggunakan SmartPLS versi 3.2.9. Berdasarkan analisis, pengetahuan produk dan sikap berpengaruh signifikan terhadap niat beli hijau secara langsung dan tidak langsung.

**Kata Kunci:** pengetahuan produk, sikap, niat beli hijau

## INTRODUCTION

### Research Background

Numerous studies show that climate change, pollution, and toxic products are so pervasive nowadays (Solomon, 2018). This unfavorable conditions had stimulated people's awareness of the environment. Chen and Chang (2012) revealed that this particular state represents environmental concerns, which leads to the high responsibility in environmental conservation efforts. As a human, playing a role in the environment is the right thing, considering that human life is completely dependent on nature. In marketing context, both consumers and companies are changing the way they view environmental issue (Kotler and Keller, 2016). In company perspectives, companies tend to create marketing strategies that displayed their concern for the environment (Boztepe, 2012) which is called green marketing. In consumer perspective, many studies show that consumers began to be more concerned about the environment and prefer to choose environmentally friendly products (Dewi, Avicenna, and Meideline, 2020) called green purchase intention. It is admittedly encouraged by the latest trend, since the 2000s.

Based on Nielsen's survey in 2015, there are 65% of total global sales were generated by brands in which the marketing conveys a commitment to social values and/or the environment in the year 2014 only. The same thing happened in Indonesia, where companies that produce environmentally friendly products have a better image among consumers, and considered to care about environmental sustainability (Haryadi, 2009). This is due to adequate consumers' green product knowledge which leads to higher intention to purchase green products, and vice versa (Wu et al., 2018). As a matter of fact, green product knowledge is essential as part of the contribution to protecting the environment. Sufficient green product knowledge can encourage consumers to start using various forms of environmentally friendly products. Green product knowledge plays a key role in consumers' decision to purchase green products and is often considered as a direct prerequisite variable for green purchase intention (Wang, Ma, and Bai, 2019).

Several studies have made attitudes as a variable that mediates consumers' product knowledge and consumers' purchase intention, because knowing an individual's attitude toward a particular object can be tremendously useful in predicting his or her behavior toward the object (Lavrakas, 2008). In this research, the object of research is organic rice where organic products are definitely part of the green product (Joshi and Rahman, 2015) because organic rice in its cultivation uses an organic farming system that is environmentally friendly by prohibiting the use of chemical fertilizers and pesticides, also prohibiting the use of seeds derived from genetic modified organisms (GMO) to prevent all forms of chemical contamination either through water or air and to avoid the effects of using alteration of unnatural genetic material.

### Research Objectives

1. To find out the influence of Product Knowledge on Attitudes toward green products.
2. To find out the influence of Product Knowledge on Green Purchase Intention.
3. To find out the influence of Attitudes toward green products on Green Purchase Intention.
4. To find out the influence of Product Knowledge on Green Purchase Intention mediated by Attitudes toward green products.

## THEORETICAL FRAMEWORK

### Green Marketing

The term green marketing was first discussed in 1975 during a seminar on "Ecological Marketing" organized by the American Marketing Association (AMA). Since then, terms such as eco-friendly, recyclable, ozone friendly, rechargeable have often been associated with green marketing (Malyan and Duhan, 2018). According to Peattie (2001), green marketing seeks to reduce the negative social and environmental impacts of existing products and production systems.

### Green Purchase Intention

Green purchase intention is the possibility and willingness of consumers who are interested in environmentally friendly issues and are aware of choosing products that are more environmentally friendly than conventional products in the production process which tend to have a negative impact and influence on the environment (Ali and Ahmad, 2016). Green purchase intention refers to the willingness of consumers to buy green

products that have a motive for concerns about ecological quality and the consequences for the environment due to consumer buying (Jaiswal and Kant, 2018).

### Product Knowledge

Product knowledge is the sum of the product category information and rules stored in a consumer's memory (Philippe and Ngobo, 1999). A consumer's overall evaluation of certain products can be determined by product knowledge (Cho et al., 2013). When consumers have more knowledge and information about green products, they more easily understand that green products, compared with products of the same quality, can save resources and energy (Lin and Chang, 2009).

### Attitude

Attitude is an overall evaluation of personal behavior (Ajzen, 1991). According to Kotler and Keller (2016), attitudes are a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea. In other words, attitudes are often strong predictors of behavior, and it is viewed as an evaluation of the purchasing of green products in the context of predicting green purchase behaviors.

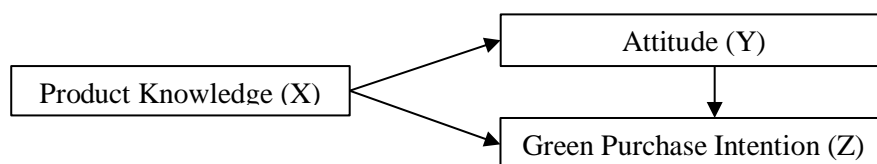
### Previous Research

Xia Wu, Xi Hu, Wei Qi, Dora Marinova, and Xing Shi (2018) aimed to explain the relationship among the risk knowledge, product knowledge, risk perception, and brand benefits and the consumers' purchase intentions of a specific air purifier compared with alternative brands. The research context is city smog. Results showed that consumers' risk knowledge and product knowledge significantly affect their purchase of an air purifier brand as well as play a considerable role in predicting their risk perception and in foreseeing their purchase intentions under the influence of the manufacturer's advertising strategies. Furthermore, consumers' risk perception is a critical psychological factor that has a significantly positive influence on brand's experiential benefits, instead of functional and symbolic benefits.

Ying Sun and Shanyong Wang (2019) observed consumers' attitudes toward and intentions to purchase green products on social media and to explore the relationships among social media marketing, perceived consumer effectiveness (PCE), product knowledge, subjective norms, perceived behavioral control, price consciousness and attitudes toward and intentions to purchase green products. In addition, this research attempted to further understand these relationships in different consumer groups. A questionnaire survey method was used to collect data from consumers in China. The empirical results suggested that attitude, subjective norms and perceived behavioral control positively affect purchase intentions, while price consciousness negatively affects purchase intentions. Product knowledge positively affects consumers' attitudes and purchase intentions, and PCE positively affects consumers' attitudes. As expected, social media marketing positively affects subjective norms, product knowledge and PCE and negatively affects price consciousness. However, there is no significant relationship between PCE and purchase intentions. According to the results of multigroup structural equation modeling analysis, the effects differ significantly among different consumer groups.

Idrees Waris and Irfan Hameed (2021) developed a theoretical framework of consumers' purchase intention of energy efficient home appliances. Non-probability quota based on age and education and purposive sampling technique have been used to assess data collected by a questionnaire survey. The findings of the study revealed that consumers' knowledge of eco-labels, environmental concern and perceived consumer effectiveness are the important predictors of purchase intention. However, the positive relationship between green trust and products' functional value was found insignificant.

### Conceptual Framework



**Figure 1. Conceptual Framework**

*Source: Literature Review (2021)*

### Research Hypothesis

H<sub>1</sub>: Product Knowledge positively influence Attitudes toward green products.

H<sub>2</sub>: Product Knowledge positively influence Green Purchase Intention.

H<sub>3</sub>: Attitudes toward green products positively influence Green Purchase Intention.

H<sub>4</sub>: Product Knowledge positively influence Green Purchase Intention mediated by Attitudes toward green products.

## RESEARCH METHOD

### Research Approach

This study is classified in causal associative research. Causal associative research according to Sugiyono (2017) is a study that looks for a cause-and-effect relationship. In this study, namely the relationship of the exogenous variable (X), the mediating variable (Y), and the endogenous variable (Z).

### Population, Sample, and Sampling Technique

The specified population used were all Manadonese who have an intention in purchasing and consuming organic rice. The minimum sample size used are ten times the largest number of indicators according *the rules of thumb* for PLS-SEM described by Hair et al. (2017a). For this reason, the researcher determines the number of samples by multiplying ten times the number of indicators. Since the number of indicators in this study is 11, therefore the minimum sample size would be 111 samples. This study utilizes the purposive sampling technique as a part of the non-probability sampling method. The purposive sampling technique relies upon the researcher's judgement in choosing respondents. It helps researchers to justify selections of studied samples under analytical, logical, or theoretical nature (Berndt, 2020). Then the sampling criteria set in this study are; (1) gen Y or millenials aged 26 – 40 years old, (2) domiciled in the greater Manado area, (3) have sufficient knowledge that organic rice is good for the environment, (4) have intention to purchase organic rice.

### Research Instrument

Research instrument is a tool used to measure observed natural and social phenomena (Sugiyono, 2017). The instrument in this study was a questionnaire used to measure the variables under study. Referring to Sugiyono (2017), the questionnaire is a data collection technique done by giving a set of questions and written statements to respondents to answer.

### Operational Definition of Research Variable

1. Product Knowledge (X). Refers to the sum of the product category information and rules stored in a consumer's memory.  
(Indicators: Subjective knowledge / Perceived knowledge, Objective knowledge, Direct prior experience, Indirect prior experience)
2. Attitude (Y). Refers to person's enduring favourable or unfavourable evaluations, emotional feelings, and action tendencies toward some object or idea.  
(Indicators: Affective, Behavioral, and Cognitive)
3. Green Purchase Intention (Z). Refers to the willingness of consumers to buy green products that have a motive for concerns about ecological quality and the consequences for the environment due to consumer buying.  
(Indicators: Transactional interest, Referential interest, Preferential interest, Exploratory interest)

### Descriptive Analysis

Leavy (2017) explained that descriptive statistics are needed to describe and summarize data. This study uses a frequency-based descriptive statistic which is useful in calculating the number of occurrences of the intended category. Besides, the frequency of each category is reported as a percentage. It helps ease analysis and can bridge adequate explanations.

### Partial Least Square SEM (PLS-SEM) Analysis

Structural Equation Modeling (SEM) has become a powerful analytical instrument in social and behavioral sciences. According to Benitez et al. (2020), there are two estimators for SEM that can be recognized,

namely, covariance-based and variance-based. A broadly adopted variance-based estimator is Partial Least Squares (PLS-SEM). Based on the hypothesis and research design, this study collected data will be analyzed using partial least square structural equation modeling. PLS is characterized as the most suitable means for research purposes concerning the model of prediction (Garson, 2016).

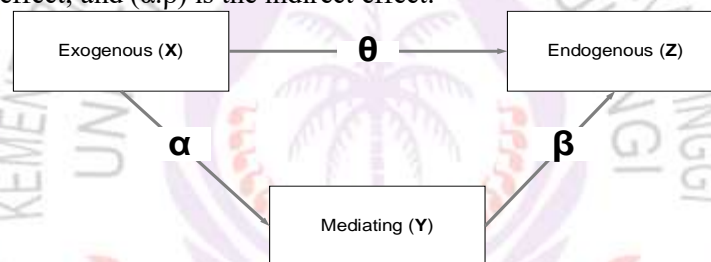
In recent times, PLS-SEM has appeared with several methodological advancements and more are in progress. Referring to Hair et al. (2017a), the reasons behind the selection of the PLS-SEM in the current study are as follows:

1. The model that is formed in the conceptual framework of this study shows a tiered causal relationship between exogenous, mediating and endogenous constructs.
2. This study uses construct variables that are measured through indicators. It is suitable to confirm complex measurement and structural models.
3. When it comes to sampling size, this particular method is excellent for both small ( $n < 100$ ) and larger ( $n > 100$ ) sample sizes.
4. It is a multivariate analysis technique that allows a series of analyzes from several constructs to be carried out simultaneously, and provide statistical efficiency.

The test is conducted using SmartPLS 3.2.9 version. These three procedures were made to estimate the result of an empirical model of PLS-based research, namely, PLS-Algorithm, Bootstrapping and Blindfolding.

### Mediation Analysis

Hair et al. (2017b) describe the mediation analysis process in PLS-SEM using the model suggested by Cepeda-Carrion, Cegarra, and Cillo (2017). The mediating effect or indirect effect has a character that involves a third variable as an intermediary. The mediating variables (Y) will mediate the relationship between the exogenous variables (X) and endogenous variables (Z). An example of a simple mediator model is shown in Figure 2, whereby ( $\theta$ ) is the direct effect, and ( $\alpha.\beta$ ) is the indirect effect.



**Figure 2. Simple Mediation Model**

Source: Cepeda-Carrion, Cegarra, and Cillo (2017), Hair et al. (2017b)

### Hypothesis Judgement

The judgement of direct effects are as follows (referring to path coefficient in PLS-SEM analysis):

1. If the result is positive and significant, then the hypothesis supported
2. If the result is negative and significant, then the hypothesis refuted
3. If the result is positive/negative and insignificant, then the hypothesis refuted

The judgement of indirect effects are as follows (referring to mediation analysis):

1. If the result indicates any mediation, then the hypothesis supported
2. If the result indicates no mediation, then the hypothesis refuted

## RESULT AND DISCUSSION

### Result of Descriptive Analysis

The respondents of this study are millennials in Manado who have adequate knowledge about the goodness of organic rice for the environment, and have intention to purchase organic rice. Judging from the age, of the 161 respondents, 137 respondents are millennials were in the 26-40 years old. From 137 millennials respondents, 129 respondents have adequate knowledge about the goodness of organic rice for the environment, then 120 respondents have intention to purchase organic rice. The result of demographic characteristics is shown in Table 1 and the result of adequate knowledge and intention to purchase organic rice is shown in Table 2.

**Table 1. Demographic Characteristics**

Criterion	Frequency	Percentage
Gender		
Male	75	46.6
Female	86	53.4
Age		
20-25 Years Old	14	8.7
26-30 Years Old	52	32.3
31-35 Years Old	51	31.7
36-40 Years Old	34	21.1
41-45 Years Old	3	1.9
< 20 Years Old or > 45 Years Old	7	4.3
Occupation		
Students	4	2.9
Employee	44	32.1
Entrepreneur	19	13.9
Civil Servant	22	16.1
Professional	34	24.8
Not have a job	9	6.6
Other	5	3.6
Monthly Income		
< Rp 5.000.000	27	19.7
Rp 5.000.000 - Rp 10.000.000	49	35.8
Rp 10.000.000 - Rp 20.000.000	43	31.4
Rp 20.000.000 - Rp 30.000.000	8	5.8
Rp 30.000.000 - Rp 40.000.000	3	2.2
Rp 40.000.000 - Rp 50.000.000	3	2.2
> Rp 50.000.000	4	2.9
Education Level		
High School	41	29.9
Bachelor Degree	70	51.1
Master Degree	23	16.8
Doctoral Degree	3	2.2

Source: Data Processed, 2021

**Table 2. Adequate Knowledge and Intention to Purchase Organic Rice**

Criterion	Frequency	Percentage
Organic Rice Good for Environment		
Yes	129	94.2
No	8	5.8
Intention to Purchase Organic Rice		
Yes	120	93
No	9	7

Source: Data Processed, 2021

In addition, to strengthen the measurement of respondent's knowledge about the goodness of organic rice for the environment, a question (why organic rice is good for the environment?) is added to be answered briefly by the respondent. And the answers that often come up are; Organic rice does not use pesticides, chemical fertilizers and other harmful chemicals that damage the environment. Besides, the cultivation process conducted naturally which greener and preserving ecosystem compare to the non-organic ones.

### Result of PLS-SEM Analysis

The PLS-SEM Analysis consists of the measurement model (outer model) and structural model (inner model). The evaluation using a reflective measurement with 3 constructs and 11 indicators. The outer model and inner model of this study can be seen in Figure 3.

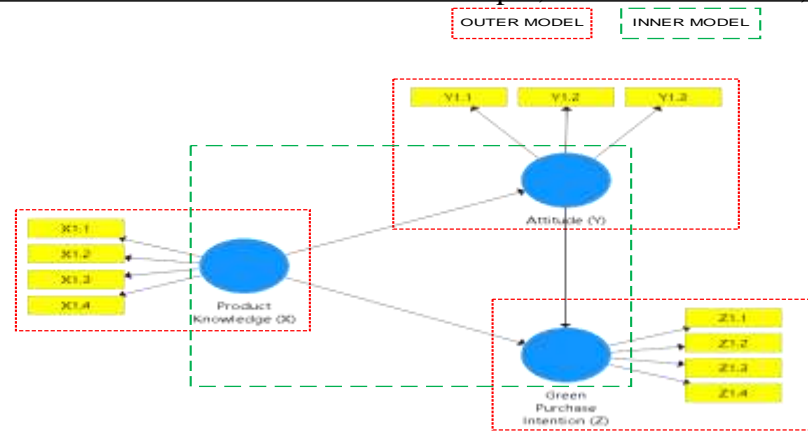


Figure 3. Outer Model and Inner Model

Source: Data Processed, 2021

**Measurement Model (Outer Model) Analysis**

The following are the results of the measurement model evaluation:

**Indicator Loading Size**

The loading factor describes the absolute value of the outer loadings. It indicates the value that each indicator has with Standardized indicator loadings of more than 0,70 (Hair et al., 2017a). Reflective indicators should be removed from the measurement model if the value of the loading size is below standard.

Table 3. Result of Outer Loading

Variable	Indicator	Loading Size	Status
Product Knowledge (X)	X1.1	0.764	Valid
	X1.2	0.805	Valid
	X1.3	0.786	Valid
	X1.4	0.822	Valid
Attitude (Y)	Y1.1	0.738	Valid
	Y1.2	0.842	Valid
	Y1.3	0.853	Valid
Green Purchase Intention (Z)	Z1.1	0.841	Valid
	Z1.2	0.851	Valid
	Z1.3	0.890	Valid
	Z1.4	0.918	Valid

Source: Data Processed, 2021

Table 3 shows the final results of the indicator loading size calculated by the PLS-Algorithm method. It is necessary to get better results before proceeding to the next test. The loading size of all 11 indicators meets the requirements and considered valid.

**Convergent Validity**

Convergent validity means that a set of indicators represents one construct and underlying that particular construct. It is expressed by Average Variance Extracted (AVE). A construct is valid and sufficient convergent validity when the value of AVE is at least greater than or equal to 0,50 (Hair et al., 2017a) .

Table 4. Result of Average Variance Extracted

Variable	AVE	Status
Product Knowledge (X)	0.631	Valid
Attitude (Y)	0.660	Valid
Green Purchase Intention (Z)	0.766	Valid

Source: Data Processed, 2021

Table 4 displays the final results of AVE calculated by the PLS-Algorithm method. All the constructs variables indicate a good convergent validity and could represent the underlying constructs.

### Discriminant Validity

Discriminant validity means that two conceptually different concepts must demonstrate adequate distinction. Fornell-Larcker criterion and cross-loadings are two measurements for this test. According to Hair et al. (2017a), the Fornell-Larcker criterion indicates that the correlation value of a construct is supposed to shares more variance with the variable itself than with other constructs. While cross-loadings mean more variants indicators of a construct share with the underlying construct than with any other construct.

**Table 5. Result of Fornell-Larcker Criterion**

	X	Y	Z
X	0.794		
Y	0.763	0.812	
Z	0.782	0.856	0.875

Source: Data Processed, 2021

Table 5 presents the final results of the Fornell-Larcker Criterion calculated by the PLS-Algorithm method. All the constructs variables indicate a greater correlation with themselves than others, so it has good discriminant validity.

**Table 6. Result of Cross Loadings**

	Product Knowledge (X)	Attitude (Y)	Green Purchase Intention (Z)
X1.1	0.764	0.579	0.586
X1.2	0.805	0.535	0.554
X1.3	0.786	0.589	0.603
X1.4	0.822	0.698	0.721
Y1.1	0.586	0.738	0.590
Y1.2	0.671	0.842	0.769
Y1.3	0.598	0.853	0.714
Z1.1	0.683	0.773	0.841
Z1.1	0.629	0.733	0.851
Z1.3	0.654	0.696	0.890
Z1.4	0.763	0.789	0.918

Source: Data Processed, 2021

Table 6 presents the final results of cross loading calculated by the PLS-Algorithm method. All the value of cross-loading on the variable in question is the largest compared to cross-loading on another construct. Hence, has good discriminant validity.

### Reliability

For reliability, Cronbach's Alpha and Composite Reliability can be used. Both the measurements vary from 0 to 1, with 1 being perfect estimated reliability. Hair et al. (2017a) stated that Cronbach's Alpha reflects the reliability of all indicators in the model with the minimum value is 0.70.

**Table 7. Results of Reliability Test**

Variable	Composite Reliability	Cronbach's Alpha	Status
Product Knowledge (X)	0.872	0.806	Reliable
Attitude (Y)	0.853	0.741	Reliable
Green Purchase Intention (Z)	0.929	0.898	Reliable

Source: Data Processed, 2021

Another measure of internal consistency is composite reliability and uses the same interpretation of Cronbach's Alpha values. Table 7 shows the reliability results calculated by the PLS-Algorithm method. Without a doubt, all construct variables are reliable and this explains the completion of the measurement model which can be further analyzed in the structural model.

### Structural Model (Inner Model) Analysis

The following are the results of the structural model evaluation:



### Coefficient of Determination

The Coefficient of Determination or R-square test ( $R^2$ ) can be examined from the significance of the exogenous variables affecting the endogenous variables. Hair et al. (2017a) described the value of R-square to be 0.67, 0.33, 0.19 and it is categorized as substantial, moderate, and weak respectively.

**Table 8. Results of Coefficient of Determinant**

Variable	R-Square
Attitude (Y)	0.582
Green Purchase Intention (Z)	0.773

Source: Data Processed, 2021

Based on Table 8, the  $R^2$  (R-square) value for the Attitude (Y) variable is 0.582 which is categorized as moderate. This value indicates that the Attitude (Y) variable can be explained by the Product Knowledge (X) by 58.2%. The remaining 41.8% is influenced by other variables not included in the current study. On the other hand, Green Purchase Intention (Z) had the  $R^2$  Value of 0.773 which is categorized as substantial. It means that the Product Knowledge (X) and Attitude (Y) variables explained Green Purchase Intention (Z) by 77.3%. The remaining 22.7% is influenced by other variables not included in the current study.

### Path Coefficient

Hair et al. (2017a) stated that path coefficient value is obtained to explain the relationship direction of variables. A coefficient value between 0 and +1 indicates positive relation. Otherwise, the relationship is negative. Moreover, the t-statistics and P values are used to assess the significance of the relationship.

**Table 9. Results of Path Coefficient**

	Original Sample	t-statistics	P values	Interpretation	
Direct Effects					
X – Y	0.763	18.873	0.000	Positive	Significant
X – Z	0.309	4.991	0.000	Positive	Significant
Y – Z	0.621	9.839	0.000	Positive	Significant
Indirect Effects					
X - Y - Z	0.473	8.641	0.000	Positive	Significant

Source: Data Processed, 2021

The results have a significant effect if they meet the following criteria  $t\text{-statistics} > t\text{-table}$  and  $P\text{ values} < 0.05$ . It all under this particular condition  $\alpha = 0.05$  and  $t\text{-table} = 1.96$ . This test is calculated using bootstrapping method with 5000 subsamples. Based on table 4.9 the results of the path coefficient are divided into two effects, namely, direct and indirect effects. All the direct and indirect effects are significant and the results obtained will be used for mediation analysis as well as hypothesis analysis.

Aside from that, f-square ( $f^2$ ) is the effect of constructing exogenous variables at the structural level (Hair et al., 2017a). The effect sizes  $f^2$  are 0.02, 0.15, 0.35 and it is interpreted for weak, moderate, strong effects, respectively.

**Table 10. Results of Effect Sizes  $f^2$**

Variable	Attitude (Y)	Green Purchase Intention (Z)
Product Knowledge (X)	1.390	0.176
Attitude (Y)		0.710

Source: Data Processed, 2021

Based on Table 10, two relations have strong effect sizes  $f^2$  (i.e., Product Knowledge to Attitude as well as Attitude to Purchase Intention). The moderate effect sizes  $f^2$  occurs in the relations of Product Knowledge to Green Purchase Intention.

### Predictive Relevance

Stone-Geisser  $Q^2$  or Q-square shows that the observed values have been reconstructed properly or the model considered has predictive relevance (Hair et al., 2017a).  $Q^2 > 0$  indicates predictive relevance, while  $Q^2 < 0$  is considered to have a bad observed value. Further, the value of  $Q^2$  is used to see the relative effect of the structural model on the observation measurement for endogenous variables. The  $Q^2$  results were categorized into weak (0.02), moderate (0.15), and strong (0.35).

**Table 11. Results of Predictive Relevance  $Q^2$**

Variable	$Q^2$
Attitude (Y)	0,375
Purchase Intention (Z)	0,584

Source: Data Processed, 2021

The result in table 11 is calculated using the blindfolding method. From that table above, all endogenous variables considered predictive relevance. Moreover, Attitude (Y) and Purchase Intention (Z) exhibits a strong relative effect.

### Result of Mediation Analysis

Mediation analysis is obtained from the interpretation of the path coefficient analysis as shown in Table 9. The significance and the correlation value of indirect effects and direct effects are used as benchmarks for the evaluation of mediation (Hair et al., 2017b). The results of mediation analysis are divided into two interpretations (i.e., Partial Mediation and No Mediation). The following Table 12 are the result of the mediation analysis:

**Table 12. Result of Mediation Analysis**

Indirect Effects ( $\alpha\beta$ )	Direct Effects ( $\theta$ )	Interpretation
X - Y - Z Positive and Significant	X - Z Positive and Significant	Complementary (Partial Mediation)

Source: Data Processed, 2021

Based on the above table, all relationships are interpreted as complementary (partial mediation). It happens when the indirect effect ( $\alpha\beta$ ) and the direct effect ( $\theta$ ) are significant with ( $\alpha\beta\theta$ ) resulted in a positive value.

### Result of Hypothesis Analysis

The following are the results of the hypothesis evaluation and discussion:

**Table 13. Result of Hypothesis Analysis**

	Hypothesis	Result of Analysis		Judgement
H1	Product Knowledge positively influence Attitudes toward green products.	Positive	Significant	Supported
H2	Product Knowledge positively influence Green Purchase Intention.	Positive	Significant	Supported
H3	Attitudes toward green products positively influence Green Purchase Intention.	Positive	Significant	Supported
H4	Product Knowledge positively influence Green Purchase Intention mediated by Attitudes toward green products.	Positive	Significant	Supported

Source: Data Processed, 2021

Based on the hypothesis analysis, it was found that all hypotheses are supported. The next discussion is carried out to answer the problems that have been formulated previously.

## Discussion

### Product Knowledge on Attitude

The analysis of the path coefficient shows that there is a positive and significant influence of Product Knowledge on Attitude. This could be because the majority of respondents belong to the millennial generation, aged 26 to 40 years (85.1%) in Table 1. One recent study by Brown (2020) shows that millennial are people who like to read (including printed books, digital books, audiobooks and articles). In 2016, millennial read an average of five books a year. It may seem like quite a few, but in fact other generations read fewer books per year than millennial. This fact can be a sign that lead millennial to have product knowledge from various readings, this can be seen from 129 respondents (94,2%) know and could answer briefly that organic rice is good for the environment, so that it could affects their attitudes toward green products. The previous studies from Waris and Hameed (2020); Sun and Wang (2019) support the result in which the product knowledge positively affects attitudes toward green products directly.

### Product Knowledge on Green Purchase Intention

The analysis of the path coefficient shows that there is a positive and significant influence of Product Knowledge on Green Purchase Intention. According to the findings in this study in Table 1 where the majority of respondents are millennial (85.1%) and also the majority of respondents have education levels up to college (70.1%), also supported by the results of a study from Brown (2020) about the characteristics of millennial who like to read, so it can be concluded that the respondents in this study have better product knowledge and directly affect their green purchase intention. Table 2 shows 120 respondents (93%) have an intention to purchase organic rice, although the price of organic rice is relatively expensive compared to the non-organic ones. This could be because 110 respondents (80.3%) have monthly income above 5 million rupiah which classified as moderate, or also because they have adequate product knowledge about organic rice. The previous study from Waris and Hameed (2020); Sun and Wang (2019); Wu et al. (2018) support the result in which the product knowledge positively affects green purchase intention directly.

### Attitude on Green Purchase Intention

The analysis of the path coefficient shows that there is a positive and significant influence of Attitude on Green Purchase Intention. Supported by millennial as the majority of respondents in this study and the results of the 2017 World Economic Forum's Global Shapers Survey study involving more than 20 thousand millennial generations from 181 countries show that the attitude of the millennial generation is much more concerned with the environment and climate change issues than other world issues. So it's no wonder that now reusable stainless steel straws, environmentally friendly fashion trends, and property trends with energy-saving features have emerged. The previous study from Waris and Hameed (2020); Sun and Wang (2019) support the result in which the attitudes toward green products positively affects green purchase intention directly.

### Product Knowledge on Green Purchase Intention mediated by Attitude

The analysis of the path coefficient shows that there is a positive and significant influence of Product Knowledge on Green Purchase Intention mediated by Attitude. According to the majority of respondents in this study who were millennial and the findings from Brown's (2020) research on the characteristics of millennial who like to read, the researchers then assumed that millennial had better product knowledge than other generations, as well as findings from the World Economic Forum's Global Shapers Survey (2017) which states that millennial attitudes are much more concerned with the environment and climate change issues than other world issues. Thus, the researcher assumes that if respondents have adequate green product knowledge, it will influence attitudes toward green products and directly or indirectly stimulate their green purchase intention. The previous study from Waris and Hameed (2020) support the result in which the product knowledge positively affects green purchase intention mediated by attitudes toward green products.

## CONCLUSION AND RECOMMENDATION

### Conclusion

After examining the findings and discussing the result, the conclusions can be formulated as follows:

1. The results of the first hypothesis judgement indicate a significant influence between Product Knowledge on Attitudes toward green products. This gives the meaning that a person's Product Knowledge will directly influence Attitudes toward green products.
2. The results of the second hypothesis judgement indicate a significant influence between Product Knowledge on Green Purchase Intention. This gives the meaning that a person's Product Knowledge will directly influence Green Purchase Intention.
3. The results of the third hypothesis judgement indicate a significant influence between Attitudes toward green products on Green Purchase Intention. This gives the meaning that a person's Attitudes toward green products will directly influence Green Purchase Intention.
4. The results of the fourth hypothesis judgement indicate a significant influence between Product Knowledge on Green Purchase Intention mediated by Attitudes toward green products. This gives the meaning that a person's Product Knowledge will influence Green Purchase Intention mediated by Attitudes toward green products.

### Recommendation

Recommendation made as a complement to the research results that can be given are as follows:

1. For users and readers of this study, to be able to be careful in interpreting the results in this study due to several limitations, such as; (1) the research data is primary data obtained in one period of time, (2) this study only take organic rice as the evidence and does not take into other green product categories, (3) the research location, (4) criteria set of respondents are specific, (5) etc.
2. For organic rice entrepreneur, to pay attention to the variables contained in this study, especially all variables have a significant influence on green purchase intention directly and indirectly. Afterwards, organic rice entrepreneur can increase green purchase intention of consumers and potential consumers through product knowledge and attitudes toward green products.
3. For future research, the future researcher can add other exogenous and/or mediating variables such as brand image or price consciousness that affects attitudes toward green products and/or green purchase intention. Future researcher can add other respondents and other research location to get better and more representative samples to generalize the findings of this study and the previous studies.

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