How Environment Knowledge, Social Influences, And Attitude Impact The Millenial Generation’s Purchase Intention In Green Products Through Attitude?

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Abstract
This time the world is covered by environmental issues in the form of climate change, the use of natural resources that do not pay attention to the environment, and the sale of products that are not environmentally friendly, and currently the millennial era is a generation that is a lot in Indonesia with a proportion of 33.75%, as a generation that is quite large, the millennial generation in the future has a considerable answer to the issue. Environmental preservation and use of green products. The purpose of this study is to find out the influence of environmental knowledge variables and social influence variables on green product buying intentions, both directly and indirectly through attitude variables as mediation variables. This type of quantitative research is used by collecting data using questionnaires on millennial respondents totaling 150 respondents. The data is analyzed using the SEM PLS approach. The results showed that variable social influences and attitudes had a positive and significant effect on the intention to buy green products. Variable environmental knowledge and social influences have a positive and significant effect on attitudes. While the variable of environmental knowledge does not have a significant effect on the intention to buy green products. The interesting result is that mediation gives the result that variables of environmental knowledge and variables of social influence have a positive and significant effect on the intention of buying green products through attitude variables as mediation variables.

Keywords: Millenial Generation, Green Products, Environmental Knowledge, Social Influence, Attitude, Purchase Intention

I. INTRODUCTION
Indonesia is entering a demographic bonus with the productive population currently dominated by millennials. The demographic bonus is inseparable from the existence of the millennial generation, if the percentage of the productive age population is associated with the percentage of the millennial generation then the contribution of the millennial generation in forming the structure of the productive age population is relatively high, because about 50.36 percent of the total population of productive age is basically the millennial generation [1]. Provinces that experience demographic bonuses include: Jakarta, East Java, Central Java, Yogyakarta, West Java, Banten, Bali, North Sulawesi, Bangka Belitung Islands, Jambi, Bengkulu, East Kalimantan, Central Kalimantan, South Kalimantan, Riau Islands, South Sumatra, and Lampung [1]. As a generation that is quite large, the millennial generation today and in the future has a considerable responsibility to the issue of environmental preservation and the use of environmentally friendly products (green products), because the environmental problems faced in the world and in Indonesia today are more caused by human attitudes and behavior towards the environment [2]. Knowledge that is the source of every human behavior will be able to be a bridge that connects human behavior to its environment, good environmental knowledge will also have an impact on the attitude of good human behavior as well [3].

This is evidenced by research that found that environmental knowledge has a positive and significant effect on a person's attitude and attitude also has a positive and significant effect on the intention to buy green products [2], [3]. Environmental concern is a strong attitude towards environmental preservation [4]. So that a person's intention to use or not to use environmentally friendly products starts from how much knowledge of the environment, so it is also important for marketers to continue to promote the importance of using green products to help overcome environmental problems because green marketing has a positive effect on consumer buying intentions [5]. Social influence also affects a person's attitude and intention to use green products [4]. Social influence can change a person's thoughts, feelings, attitudes, or behaviors resulting from external factors, so that the attitude and intention of using green products may be affected by social influence [6].

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from interactions with other individuals or groups[6]. A person can be greatly influenced by his or her social environment such as relatives, friends, colleagues, and business partners[7]. Based on the facts above, the issue of environmental preservation and the behavior of the millennial generation in being interesting to research, the research will focus on the driving variables of the millennial generation to increase the intention to buy green products.

**Literature Review**

The term millennial comes from the word millennials coined by two American historians and writers, William Strauss and Neil Howe, written in several articles. This generation group was born in the early 1980s to 2000s,[9] another opinion was born between 1978 and 2000[10]. Green products are products that are harmless to humans and their environment, are not wasteful of resources, do not produce excessive waste, and do not contain cruelty to animals [11] In general green products are known as ecological products or environmentally friendly products and are also considered as products that will not pollute the earth or damage natural resources and can be recycled or preserved [12], [25]. Environmental knowledge is the basic knowledge that individuals already have regarding something or everything that can be done and attempted to assist in the protection of the environment by facilitating their behavioral commitment to making purchases of green products. The better the environmental knowledge possessed by a person or consumer, the more the consumer will know about the quality of green products and will increase their intention to buy green-friendly products [14]. The knowledge a person has about the environment can have a positive and significant effect on the intention of buying green products in Malaysia [15] These results are also supported by other studies stating that environmental knowledge has a positive and significant effect on purchasing intentions on green products in Pakistan [16]. Environmental knowledge has a positive and significant effect on the attitude and intention of buying green products, then attitudes can have a significant positive effect on purchasing intentions in green products [14].

The Ajzens theory of Planned Behavior (TPB) describes the subjective norm factors associated with social pressure to perform or not perform certain behaviors and also highlights reference issues in which consumers will act and think whether their references will approve or reject certain behaviors[7]. Research shows that social influence or direct identification with environmentally conscious consumers has an impact on green product purchasing behavior [17]. Another study found social influence, environmental awareness influences attitudes towards buying green products [18]. Attitudes are the feelings, thoughts, and tendencies of a person who encourages to behave when he likes or dislikes something [19] Referring to Ajzens' Theory of Planned Behavior, it is said that consumer confidence also forms attitudes that translate into intentions and behaviors, even consumer thoughts and feelings also influence behavior [20]. The Attitude Model consists of three components: cognitive, affective and conative [19]. Good environmental concern will also have an impact on human behavior attitudes to respect the environment, it gives an encouragement to the community to participate in maintaining the environment, through its knowledge of the environment and attitudes that influence behavior to save the environment [3]. Research [21],[22] found that attitudes positively affected the buying intention of green products. But other studies have suggested that attitudes do not fully affect the intention to buy green products [23]. Subsequent research stated that consumer attitudes on the environment have a significant effect on the intention to buy green products [3].

Buying intentions lead to a tendency of an individual or consumer to buy a product or service that makes him like it. Purchasing intent is the prospect of a consumer to buy a product in the future. In deciding to buy green products, consumers consider not only environmental factors but also product quality, various studies show that the environmental attributes of green products still have little influence on consumer actions and behavior compared to satisfaction factors [25], [26], [27],[28],[29],[30]. The researchers agree that consumer acceptance of green products tends to be more of a satisfaction factor and they also support corporate activities that do not harm the environment. Based on this fact, companies need to develop products that have those attributes where marketers are expected to not only highlight the side of environmentally friendly products (green products) but also products with high value to increase consumer purchase intentions [28][31].
Frame of Mind

Based on the study of the literature and background of the above description, it can be made a framework of thought developed for this research as follows:

![Research Model Frame of Mind](image)

**Research Hypothesis**

The hypotheses built in this study are as follows:

H1: Environment knowledge has a significant effect on purchase intention
H2: Environment knowledge has a significant effect on attitude
H3: Social influence has a significant effect on purchase intention
H4: Social influence has a significant effect on attitudes
H5: Attitude has a significant effect on purchase intention
H6: Environment knowledge has a significant effect on purchase intention through attitude
H7: Social influence has a significant effect on purchase intention through attitude

**II. RESEARCH METHODS**

**Population and Sample**

The population in this study is the people of Banjarmasin city with segmentation of generation Y (millennial generation), sampling by purposive sampling method. The study used the Structural Equation Model (SEM) with partial least square (PLS) applications where according to Ghozali[29] for PLS the recommended sample number ranges from 30 to 100.

The sample size in this study used the slovin formula:

\[
n = \frac{N \cdot Z^2 \cdot (1 - \alpha) / 2 \cdot P (1 - P)}{(N-1) \cdot d^2 + Z^2 \cdot (1 - \alpha) / 2 \cdot P (1 - P)} \quad (1)
\]

Where:

- \( n \) = Minimum sample size
- \( Z \) = Raw normal distribution value (table Z) on \( \alpha = 0.05 \)
- \( P \) = Proportion in the population
- \( d \) = Error (absolute) that can be tolerated
- \( N \) = Large population

According to BPS Banjarmasin data, the population of Banjarmasin until 2017 amounted to 675,440 people, with the proportion of the millennial population taken at 10% and the absolute error rate that can be tolerated is 5% then the minimum sample size used is as follows:

\[
n = \frac{675,440 \times (1.96)^2 \times 0.1 \times 0.9}{(675,439) \times (0.05)^2 + (1.96)^2 \times 0.1 \times 0.9} = 138 \text{ samples}
\]
This study will use a sample count of 150 samples so that it has qualified the number of samples obtained from Slovin calculations.

**Data Retrieval Methods and Data Analysis Techniques**

Data collection using questionnaires and respondents' answers was measured using a likert scale, with a range of answers strongly agreed to strongly disagree. The data analysis technique used is SEM based on partial least square (PLS) components or variances with the help of Smart PLS software. SEM has a higher flexibility for researchers to connect between theory and data [32].

**Instrument Validity and Reliability Test**

The size of individual reflections is said to be high if it correlates more than 0.70 with the measured construct. However, for early stage research of the development of the loading value measurement scale of 0.5 to 0.6 is considered sufficient [32]. Discriminant validity of the measurement model with reflective indicators is assessed based on crossloading measurements with constructs. If the correlation of the construct with the measurement item is greater than the size of the other construct then it indicates that the latent construct predicts the size on their block better than the size of the other blocks. Then for the reliability test assessed from the reliability coefficient, values above 0.6 indicate the items of reliable instruments [30].

The construct reliability test is measured by two criteria, namely composite reliability and Cronbach from the indicator block that measures constructs. Constructs are declared reliable if the composite reliability and Cronbach alpha values are above 0.7 [32].

**Data Analysis Techniques**

Data analysis techniques used using a component-based Structural Equation Model (SEM) or Partial Least Square (PLS) variance. PLS is a powerful analysis method because it is not based on many assumptions, data does not have to be distributed normally, namely indicators with category scales (ordinal, intervals, ratios) can be used on the same model and you do not have to be large ranging from 30 - 100 [32].

The path analysis model of all latent variables in pls consists of three sets of relationships: (1) the inner model that specifies the relationships between latent variables (structural models), (2) the outer model that specifies the relationship between latent variables and their indicators or manifestation variables (measurement models) and (3) weight relations in which the case value of latent variables can be estimated. The Goodness of Fit (GoF) index aims to validate the model as a whole, both in terms of measurement and structural. To assess the model with PLS we start by looking at the R-square for each dependent latent variable, the interpretation is the same as the interpretation on regression [33].

**Hypothesis Testing**

In testing this hypothesis can be seen from the t-statistical value and the probability value. For hypothesis testing, using statistical values, then for alpha 5% the t-statistical value used is 1.96. So that the criteria for acceptance / rejection of the hypothesis is Ha accepted and H0 rejected when the t-statistic > 1.96. To reject/accept the hypothesis using probability then Ha is accepted if the value of p < 0.05.

### III. RESULTS AND DISCUSSIONS

**Measurement Model Analysis Results (Outer Loading)**

Measurement model analysis is carried out through four stages of testing, namely individual test item reliability, internal consistency reliability, average variance extracted and discriminant validity.

#### a) Reliability Test

This test is done by looking at the standardized loading factor value. The value describes the magnitude of the correlation between each indicator measurement item and its latent variable. The loading value of a factor of 0.6 and above can be said to be valid as an indicator that measures latent variables.

<table>
<thead>
<tr>
<th>Table 1. Loading Factor Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude</strong></td>
</tr>
<tr>
<td>AT1</td>
</tr>
<tr>
<td>AT2</td>
</tr>
</tbody>
</table>

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From the outer loading factor test, it can be seen that all indicators are above 0.60 so that all indicators are considered quite capable in constructing existing variables.

**b) Discriminant Validity Test**

This test is done by looking at the cross loading value and then comparing it with the AVE root value. Cross loading size is by comparing the correlation of the indicator with its construct and other block constructs, this shows that the construct predicts the size on their block better than other blocks. Another measure of discriminant validity is that the root value of the AVE should be higher than the correlation between construct and construct.

<table>
<thead>
<tr>
<th>Source: Data processed, 2022</th>
</tr>
</thead>
</table>

From the Discriminant Validity Test in the data in the table above shows that the loading values on the intended construct are all greater than the loading values on other constructs, so it can be concluded that there are no problems in discriminant validity testing.

**c) Internal Consistency Reliability Test**

This test is done using a Composite Reliability (CR) value with a threshold of 0.7.

<table>
<thead>
<tr>
<th>Source: Data processed, 2022</th>
</tr>
</thead>
</table>

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From table 3. It can be seen that all Composite Reliability (CR) values are above 0.7 and Cronbach's Alpha above 0.5 so it can be concluded that there are no problems in internal consistency reliability test testing or it can be stated that the indicators used on each variable have good reliability or are able to measure the construction.

d) **Average Variance Extracted (AVE)**

The next test is to look at the AVE value, this value describes the magnitude of the variant or diversity of manifest variables that can be contained by latent variables. A minimum AVE value of 0.5 indicates a good convergent validity measure.

<table>
<thead>
<tr>
<th>Average Variance Extracted (AVE)</th>
<th>Attitude</th>
<th>Environment Knowledge</th>
<th>Purchase Intention</th>
<th>Social Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.764</td>
<td>0.610</td>
<td>0.743</td>
<td>0.723</td>
</tr>
<tr>
<td>Environment Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

From table 4. It can be seen that all AVE values are not below 0.5 so it can be concluded that there are no problems in the test of average variance extracted.

**Structural Model Analysis Results (Inner Model)**

This analysis is carried out with several stages of testing, namely path coefficient (β), coefficient of determination (R²), t-test with bootstrapping method.

a) **Path Coefficient (β) Test**

This test is done by looking at the threshold value above 0.1 to state that the path in question has an influence in the model. The results of the path coefficient can be seen in table 5. Where there are five significant paths.

<table>
<thead>
<tr>
<th>Path Coefficient Test Results</th>
<th>Attitude</th>
<th>Environment Knowledge</th>
<th>Purchase Intention</th>
<th>Social Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.478</td>
<td></td>
<td>0.478</td>
<td>0.324</td>
</tr>
<tr>
<td>Environment Knowledge</td>
<td>0.485</td>
<td>0.130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td></td>
<td></td>
<td>0.296</td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

Table 5. Indicates that there are five paths, all values above the threshold of 0.1, so it can be concluded that all existing paths have an influence on the model.

b) **Coefficient of Determination (R²) Test**

This test is done to explain the variant of each endogenous variable target, the following is the measurement result.

<table>
<thead>
<tr>
<th>Coefficient of Determination (R²) Test Results</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.515</td>
<td>0.508</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.626</td>
<td>0.618</td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

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The results above show that the Attitude variable has an R Square value of 0.515 (51.5%) this means that the ability to explain attitude dependent variables is moderate at a level of 51.5%, or in other words the Attitude model is explained by environment knowledge and social influence of the remaining 51.5% is explained by other variables outside the research model. Purchase intention dependent variables have a square R value of 0.626 (62.6%) this means that the ability to explain dependent purchase intention variables is strong at a rate of 62.6%, or in other words the Purchase intention model is explained by environment knowledge, social influence and attitude variables of 62.6% while the rest is explained by other variables outside the research model.

c) t-test

This test was done by bootstrapping method using a two-tailed test with a significance level of P Values of 0.05 (5%) to test the hypotheses in this study. The hypothesis will be accepted if it has a t-test greater than 1.96 and a P Values below 0.05.

Table 7. T-test Results

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude -&gt; Purchase Intention</td>
<td>0.478</td>
<td>0.478</td>
<td>0.093</td>
<td>5.155</td>
<td>0.000</td>
</tr>
<tr>
<td>Environment Knowledge -&gt; Attitude</td>
<td>0.485</td>
<td>0.481</td>
<td>0.101</td>
<td>4.810</td>
<td>0.000</td>
</tr>
<tr>
<td>Environment Knowledge -&gt; Purchase Intention</td>
<td>0.130</td>
<td>0.131</td>
<td>0.075</td>
<td>1.734</td>
<td>0.083</td>
</tr>
<tr>
<td>Social Influence -&gt; Attitude</td>
<td>0.324</td>
<td>0.329</td>
<td>0.093</td>
<td>3.494</td>
<td>0.001</td>
</tr>
<tr>
<td>Social Influence -&gt; Purchase Intention</td>
<td>0.296</td>
<td>0.297</td>
<td>0.067</td>
<td>4.420</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

The results of the t-test showed that the t-test value was above 1.96 and the P Values or significance level required below 0.05 but it turned out that there was one hypothesis that the P Value was below 0.05, namely the influence of environment knowledge on purchase intention with a value of P Values of 0.083. Then when viewed from the results of the specific indirect effect test where the attitude variable as a mediation variable can be seen as follows:

Table 8. T-test results for specific indirect effect

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment Knowledge -&gt; Attitude -&gt; Purchase Intention</td>
<td>0.232</td>
<td>0.061</td>
<td>3.773</td>
<td>0.000</td>
</tr>
<tr>
<td>Social Influence -&gt; Attitude -&gt; Purchase Intention</td>
<td>0.155</td>
<td>0.056</td>
<td>2.748</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Source: Data processed, 2022

The results of the t-test on the mediation variable show that the t-test value was above 1.96 and the P Values or significance level required below 0.05 so that it can be said that the variable attitude carries a significant influence as a mediation variable.

Hypothesis Testing

Hypothesis testing is done to see the level of significance and whether the hypothesis is acceptable or rejected and look at the research model (path model). Hypothesis testing requires that the level of significance can be seen at the P value at the significance level below 0.05 and the t-test result above 1.96. The results of hypothesis testing and research models can be seen below.

Table 9. Hypothesis Testing

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Path</th>
<th>Parameter Coefficient</th>
<th>T Statistics</th>
<th>P Values</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1</td>
<td>Environment Knowledge -&gt; Purchase Intention</td>
<td>0.130</td>
<td>1.734</td>
<td>0.083</td>
<td>Not</td>
</tr>
<tr>
<td>2</td>
<td>H2</td>
<td>Environment Knowledge -&gt; Attitude</td>
<td>0.485</td>
<td>4.810</td>
<td>0.000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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Interpretation and Discussion of Research Results

This section describes the hypotheses that have been formulated previously consisting of 5 (five) hypotheses, namely:

a) H1: Environment knowledge has a significant effect on purchase intention
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be concluded that the hypothesis (H1) was rejected with a t-test value of 1.734 with a significance level of P Value of 0.083.

b) H2: Environment knowledge has a significant effect on attitudes
   Based on the results of the analysis of the model structure that can be seen in table 4.13, it can be concluded that the hypothesis (H2) is accepted with a t-test value of 4.810 with a significance level of P Value of 0.000.

c) H3: Social influence has a significant effect on purchase intentions
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be concluded that the hypothesis (H3) is accepted with a t-test value of 4.420 with a significance level of P Value of 0.000.

d) H4: Social influence has a significant effect on attitudes
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be concluded that the hypothesis (H4) is accepted with a t-test value of 3.494 with a significance level of P Value of 0.001.

Source: Data processed, 2022

Source: Smart PLS processed data, 2022

Fig 2. Hypothesis Testing Path Diagram

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e) H5: Attitude has a significant effect on purchase intention
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be
   concluded that the hypothesis (H5) is accepted with a t-test value of 5.155 with a significance level
   of P Value of 0.000.

f) H6: Environment knowledge has a significant effect on purchase intention through attitude
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be
   concluded that the hypothesis (H6) is accepted with a t-test value of 3.773 with a significance level
   of P Value of 0.000.

g) Social influence has a significant effect on purchase intention through attitude
   Based on the results of the analysis of the model structure that can be seen in table 9, it can be
   concluded that the hypothesis (H7) is accepted with a t-test value of 2.748 with a significance level
   of P Value of 0.006

IV. CONCLUSIONS AND SUGGESTIONS

Conclusion
Based on the results of the study, it can be concluded as follows:

a) This research proves that environmental concern variables, environmental knowledge variables and
   social influence variables have a positive and significant effect on attitude variables.

b) Environmental knowledge variables, social influence variables and attitude variables have a positive
   & significant effect on green product buying interest variables.

c) Especially on attitude variables as mediation variables if they follow the following: Environmental
   knowledge variables have a positive & significant effect on the interest in buying green products
   through attitude variables. Variabel social influence has a positive & significant effect on the
   interest in buying green products through attitude variables.

d) Only one variable that does not have a positive and significant effect on the interest in buying green
   products is the environmental concern variable.

Suggestion
The advice that can be given from the results of this study is that green product marketers should pay
attention to variables that have a significant influence on the interest in buying green products to be
considered in educating consumers and considering including these variables in introducing product
promotions. For the development of further research, the upcoming research agenda should examine other
variables that have not been studied in this study or can also by increasing the number of populations and
larger samples such as taking populations and samples nationally so that the results of the study are more
meaningful to be generalized.

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