

# Factors Affecting Purchase Intention of Environmentally Friendly Detergent in Indonesia

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## ABSTRACT

This study aims to understand the factors that influence the purchase intention of environmentally friendly detergents in Indonesia. The object used in this study is environmentally friendly detergents in Indonesia. Data processing was carried out using Structural Equation Modeling (SEM) with AMOS 24.0 software. A total of 189 primary data were obtained from respondents as well as consumers of environmentally friendly detergents in Indonesia. The results of this study indicate a positive and significant influence of previous purchase experience on environmental consciousness and green attitude, environmental consciousness and green attitude on purchase intention. Meanwhile, there is an insignificant relationship between previous purchase experience and purchase intention.

**Keywords:** *Previous purchase experience, Environmental consciousness, Attitude, Purchase intention*

## 1. INTRODUCTION

Waste left over from detergent use can be found in various areas, especially in densely populated areas. Detergent waste is considered to have various negative or dangerous impacts on the environment. In detergent there are phosphate compounds which can trigger algae blooming events. Due to the currently widespread environmental problems, sustainable products have become one of the most important subjects in academic and market discussions (Wang & Wu, 2016). To reduce the imbalance that occurs in the environment, currently researchers, companies and governments have led efforts to design sustainable or environmentally friendly products. Currently, many people are aware of a positive attitude towards environmental sustainability, but in fact there are still many people who do not comply with the discourse or are known to have a gap in attitudes or behavior. This means that each individual does not necessarily have the intention to buy environmentally friendly products even though they are aware of the environmental problems that occur (Parkinson et al., 2018). According to Kumar et al. (2021) the rapidly increasing demand for environmentally friendly products is one example of responsible purchasing intentions from customers. Understanding that offering environmentally friendly products is not an indicator that consumers will always choose that type of product, but its existence will increase consumer choice (Narula & Desore, 2016).

Costa et al.'s research (2021) stated that previous experience is not used as a starting point for purchasing intentions, especially for environmentally friendly products. So previous purchase experience is not significantly related to green attitude, environmental consciousness and purchase intention. This can be explained in research by Lee et al. (2018) that there may be distrust regarding whether the product is actually produced with environmentally friendly product characteristics in mind. Apart from previous purchasing experience, several factors such as environmental awareness are also factors that influence consumer purchasing intentions. According to research by Cerri et al. (2018) stated that the role of environmental awareness still needs further research.

This research refers to research Costa et al. (2021) with 4 variables namely previous purchase experience, environmental consciousness, green attitude and purchase intention (as shown in Figure 1). The results of research by Costa et al (2021) show that environmental consciousness does not have a significant effect on purchase intention. Whereas (Kumar et al., 2021) found a positive and supported relationship between environmental consciousness and purchase intention. According to Costa et al (2021) green attitude has a positive and significant effect on purchase intention. Meanwhile in research (Vu et al., 2022) shows that green attitude does not significantly influence purchase intention. Therefore, there are 2 research gaps or inconsistencies in research results that are interesting to study.

The Theory of Planned Behavior is the result of the development of the previous model, namely the Theory of Reasoned Action and was developed by Ajzen in 1991. The Theory of Planned Behavior assumes that behavior is determined by a person's desire to do or reject something, namely attitudes, subjective norms and perceived behavioral control.

Previous purchase experience is a cognitive, affective and emotional response to direct or indirect contact with a service provider, brand or product that occurs before, during and after the purchase period. Several journals also state the same definition. Previous purchase experience is the basis for personal information that will be the basis for future

decision making to avoid negative results (Parkinson et al., 2018). Attitude is a favorable or unfavorable evaluation or assessment of the behavior in question.

According to Parkinson et al. (2018) the results of previous purchasing experiences are considered as a source of personal information that will form the basis of future decision making. Mostly a cognitive approach to understanding consumer decisions depend on price perspectives and environmental information or knowledge (Lin et al., 2020). Environmentally friendly product information is one of the most important influences, positive experiences felt by consumers will produce positive feelings and make consumers repeat similar consumption behavior. Thus, the first hypothesis is stated as follows.

H1: Previous purchase experience has a positive effect on purchase intention

Apart from information that can help consumers gain knowledge about ways to act pro-environmentally, previous purchasing experiences can also encourage consumer awareness of the environment. One of them is that with previous purchasing experience, consumers can find out information that is not yet available so that it can help consumers differentiate between true and false information (Lee et al., 2018). When someone has a positive experience with a product and is environmentally friendly, then someone can increase awareness of environmental issues and tend to pay attention to environmental problems and become more concerned about the environmental impact of purchasing decisions. Thus, the second hypothesis is as follows.

H2: Previous purchase experience has a positive effect on environmental consciousness

Previous purchasing experiences can influence a person's behavior and views towards environmentally friendly practices. When purchasing environmentally friendly products, individuals can feel the effectiveness of their impact on the environment which leads to more positive attitudes and behavior. Thus, the third hypothesis is as follows.

H3: Previous purchase experience has a positive effect on green attitude

According to previous research, someone who cares about the environment can also influence the purchasing intentions of other individuals through exerting social pressure from family, relatives and peers. Therefore, environmental awareness can be understood as a variable that influences individual perceptions and results in people having the intention to purchase a product. This brings the author to the fourth hypothesis.

H4: Environmental consciousness has a positive effect on purchase intention.

Based on previous research, attitude has a significant influence on consumer purchasing intentions. According to research conducted by Kumar et al. (2021) stated that one of the factors that influences the formation of intentions to purchase environmentally friendly clothing is attitude. The fifth hypothesis proposed is as follows.

H5: Green attitude has a positive effect on purchase intention

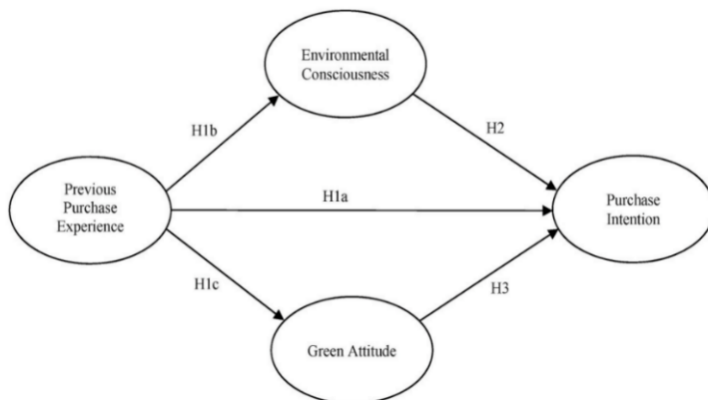


Figure 1. Research Model

## 2. RESEARCH METHODS

This type of research is basic research because this research is a development of Costa et al. (2021), Kumar et al. (2021) and Vu et al. (2022). This research is considered causal research because the aim of this research is to identify cause and effect relationships or from exogenous variables, namely previous purchase experience, to endogenous variables, namely green attitude, environmental consciousness and purchase intention. This research uses a quantitative approach where data will be collected using surveys and data processing based on numerical data measurements.

The type of data used in this research is primary data. Data was obtained by making a questionnaire according to the reference journal. Next, the questionnaire was distributed to get respondents. The questionnaire was created in a structured and clear manner so that it is easy for respondents to understand in accordance with the criteria. The measurement level used in this research is the interval measurement level. Measurements use a numerical scale in 5 scales. The scale ranges from scale 1 which indicates that the respondent "strongly disagrees" to scale 5 which indicates that the respondent "strongly agrees" with the statement stated in the questionnaire.

The target population in this research is environmentally friendly detergent consumers in Indonesia who have purchased and used it at least twice in the last 6 months. The characteristics of the desired respondent are someone who has purchased and used environmentally friendly detergent at least twice in the last 6 months, has purchased environmentally friendly detergent using discounted prices, is at least 17 years old, lives in Indonesia with at least a high school/vocational education equivalent so that the respondent can understand and fill out the questionnaire correctly and validly. This research model includes four variables based on references from Costa et al (2021).

Data processing in this research uses Structural Equation Modeling (SEM) with the SPSS 24 and AMOS 24 programs. SEM is a statistical method used to test the relationship between complex and difficult to measure variables simultaneously. This method is used to evaluate the suitability of the research model and test the proposed hypothesis. The data processing process using SEM will be carried out using AMOS 24 software. Before testing SEM with AMOS 24, the data will be processed first using SPSS 24 to test the validity and reliability of the initial 40 questionnaires.

### 3. RESULTS AND DISCUSSION

The validity test was carried out on 40 respondents' data obtained through a questionnaire distributed online using Google Form. The data that has been distributed is then collected for a pre-test first. The data that has been collected is then processed using IBM SPSS Statistics 24 software. Validity testing is carried out by calculating the correlation of each indicator from the variables purchase intention, green attitude, environmental consciousness and previous purchase experience. A variable is said to be valid and can be used if when calculating the correlation, the Pearson correlation has a value of more than 0.5 and produces a significance value of less than 0.1 ( $\alpha=10\%$ ) or shows an \* (significant correlation at the 0.05 level) or \*\* sign (correlation is significant at the 0.01 level). The data is then processed using IBM SPSS statistics 24 software. Through the reliability test, it can be seen whether the respondent has answered each question consistently or not. A variable will be considered reliable if the Cronbach's alpha result is more than 0.6.

After testing the validity and reliability of 40 respondents' data, it was declared valid and reliable, then questionnaires were distributed to obtain as much data as needed. The total data obtained was 215 data from the questionnaires distributed, but from 215 data collected individually *online*, only 189 questionnaire data matched the research criteria. The following is a table of characteristics of respondents in this study:

**Table 1.** Goodness of Fit Measurement Model Test Results

No	Index	Criteria	Results	Information
1.	CMIN/DF	$CMIN/DF \leq 3$	1,341	<i>Good Fit</i>
2.	RMSEA	$RMSEA \geq 0.08$	0.43	<i>Good Fit</i>
3.	GFI	GFI 0.8 – 0.9 $GFI \geq 0.9$	0.927	<i>Good Fit</i>
4.	CFI	CFI 0.8 – 0.9 $CFI \geq 0.9$	0.961	<i>Good Fit</i>
5.	TLI	TLI 0.8 – 0.9 $TLI \geq 0.9$	0.951	<i>Good Fit</i>

Table 1 shows that CMIN/DF and RMSEA have met the specified criteria, namely CMIN/DF of 1.341 and RMSEA of 0.43. So that both indices have obtained good fit results. Meanwhile, GFI, CFI and TLI have also met the specified criteria, namely GFI of 0.927, CFI of 0.961 and TLI of 0.951. So that the three indices obtain good fit results.

The results show that the standardized loading on each variable has met the criteria, namely having a value  $\geq 0.5$ . So, it is declared valid and can be continued to test validity using AVE calculations and reliability using CR calculations. AVE has criteria, namely a value  $\geq 0.5$  for each variable. The purchase intention variable has a value of 0.456, green attitude has a value of 0.324, environmental consciousness has a value of 0.324 and previous purchase experience has a value of 0.484. According to, Hair et al. (2010), to test validity using two conditions, namely standardized loading  $\geq 0.5$  and AVE  $\geq 0.5$ . standardized loading is used to test the validity of each variable indicator, while the AVE value calculation is used to test the validity of the variable only. Because the value of the standardized loading for all variables meets the criteria of  $\geq 0.5$ , the AVE value obtained is acceptable. Then several variables in this study have met the CR

criteria. However, the environmental consciousness variable obtained a result of 0.648. According to Hair et al (2010), CR calculation results are acceptable if they meet a value of  $\geq 0.7$ . However, if the standardized loading value of each indicator meets the criteria, namely  $\geq 0.5$ , then the CR value between 0.60 and 0.70 is still acceptable. Therefore, the CR value for each variable is acceptable.

**Table 2.** Structural Model Suitability Test Results

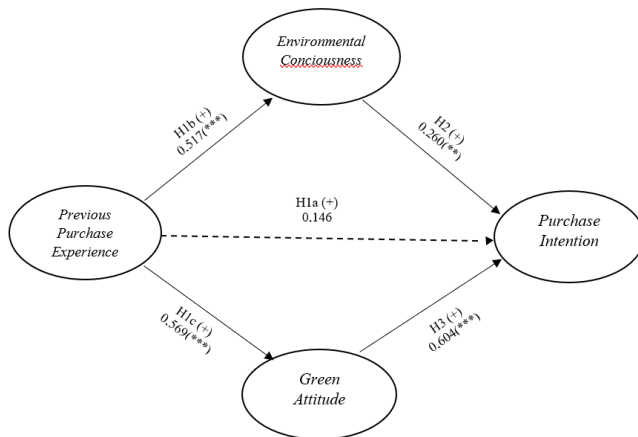
No	Index	Criteria	Results	Information
1.	CMIN/DF	CMIN/DF $\leq 3$	1,841	Good Fit
2.	RMSEA	RMSEA $\geq 0.08$	0.067	Good Fit
3.	GFI	GFI 0.8 – 0.9 GFI $\geq 0.9$	0.905	Good Fit
4.	CFI	CFI 0.8 – 0.9 CFI $\geq 0.9$	0.902	Good Fit
5.	TLI	TLI 0.8 – 0.9 TLI $\geq 0.9$	0.879	Marginal Fit

Table 2 shows that CMIN/DF and RMSEA have met the specified criteria, namely CMIN/DF of 1.841 and RMSEA of 0.067. So that both indices have obtained good fit results. GFI, CFI and TLI have also met the specified criteria, namely GFI of 0.905, CFI of 0.902 so that both indices obtain good fit results. Meanwhile, TLI obtained a value of 0.879 so that TLI can be said to be marginally fit.

Next, the hypothesis testing stage is carried out. The hypothesis is considered supported if it meets two conditions. The first condition is a critical ratio (CR) value  $\geq 1.96$  and a p-value  $< 0.1$  ( $\alpha=5\%$ ). The second condition is that the direction of the hypothesis is in accordance with the empirical results seen through the standardized estimate value.

**Table 3.** Hypothesis Test Results

Hypothesis		Std. Estimate	CR	p-value	Information
H1a (+)	Previous Purchase Experience $\rightarrow$ Purchase Intention	0.146	1,261	0.207	Hypothesis Not Supported
H1b (+)	Previous Purchase Experience $\rightarrow$ Environmental Consciousness	0.517	3,955	***	Supported Hypothesis
H1c (+)	Previous Purchase Experience $\rightarrow$ Green Attitude	0.569	4,287	***	Supported Hypothesis
H2 (+)	Environmental Consciousness $\rightarrow$ Purchase Intention	0.260	2,141	0.032	Supported Hypothesis
H3 (+)	Green Attitude $\rightarrow$ Purchase Intention	0.604	3,843	***	Supported Hypothesis



**Figure 2.** Structural Model

Based on the results of the hypothesis testing that was carried out (see Table 3), it was found that there was a positive and significant relationship *previous purchase experience* on environmental consciousness and green attitude,

environmental consciousness and green attitude on purchase intention. Meanwhile, there is an insignificant relationship between previous purchase experience and purchase intention. Figure 2 shows the result of the structural research of this study.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

Based on the results of data processing and hypothesis testing that has been carried out, the conclusions obtained for each hypothesis are as follows:

1. *Previous purchase experience* has no effect on purchase intention for environmentally friendly detergents in Indonesia
2. *Previous purchase experience* has a positive and significant effect on the environmental consciousness of environmentally friendly detergents in Indonesia
3. *Previous purchase experience* has a positive and significant effect on the green attitude of environmentally friendly detergents in Indonesia
4. *Environmental consciousness* has a positive and significant effect on purchase intention for environmentally friendly detergents in Indonesia
5. *Green attitude* has a positive and significant effect on purchase intention for environmentally friendly detergents in Indonesia

This research is a replication of research by Costa et al. (2021) entitled "Consumer antecedents towards green product purchase intention". Costa et al. (2021) researched the influence of previous purchase experience on environmental consciousness, green attitude and purchase intention as well as the influence of environmental consciousness and green attitude on purchase intention. The results of this research obtained an unsupported hypothesis, namely that previous purchase intention had no effect and was not significant on purchase intention for environmentally friendly detergents in Indonesia (H1a).

In this research, several results were found that were different from previous research conducted by Costa et al. (2021). This research found that previous purchase experience had a positive and significant effect on environmental consciousness and green attitude. Meanwhile, research by Costa et al (2021) found that previous purchase experience had no effect on environmental consciousness and green attitude. In this research, it was also found that environmental consciousness had a positive and significant effect on purchase intention. Meanwhile, research by Costa et al (2021) found that previous purchase experience had no effect on purchase intention.

In research entitled "Influencing Factors *Purchase Intention* "Environmentally Friendly Detergents in Indonesia" results show that the experience of purchasing environmentally friendly detergents does not directly influence consumers' purchasing intentions towards environmentally friendly detergents. Consumers who have experience purchasing environmentally friendly detergents will have purchase intentions if they have environmental awareness and a positive attitude towards environmentally friendly detergents. From these results it can be said that the variables environmental consciousness and green attitude are important variables to direct consumer purchasing intentions towards environmentally friendly detergents. In this research, it was also found that green attitude has the strongest relationship or greatly influences purchase intention for environmentally friendly detergents. Therefore, environmentally friendly detergent producers must pay close attention to consumers' green attitudes towards environmentally friendly detergent products

This research has several different results from previous research conducted by Costa et al. (2021). The difference in results could be due to differences in research objects, where in this study environmentally friendly detergents were used, whereas in Costa et al. (2021) research the objects used were environmentally friendly products in general. In addition, differences in results in these two studies could be caused by differences in research locations and different characteristics of respondents from the two research areas. In this research, the application of the questionnaire was carried out in Indonesia, while in Costa et al. (2021) research, the application of the questionnaire was carried out at a public university located in northeastern Brazil. The difference in research location can cause these two studies to have different results. Therefore, the influence of previous purchase experience as a starting point that influences purchase intention needs to be studied further.

##### 4.1 Recommendations for Environmentally Friendly Detergent Producers and Further Research

In this research, previous purchase experience has a positive effect on the environmental consciousness of environmentally friendly detergents in Indonesia. The experience of using detergent will raise environmental awareness among consumers. Therefore, environmentally friendly detergent manufacturers can provide various educational campaigns about the importance of using sustainable detergents and the positive impacts produced by choosing environmentally friendly detergents. So that consumers have more knowledge and understanding of current environmental issues and the negative impacts of several frequently used detergent raw materials.

Previous purchase experience has a positive effect on the green attitude of environmentally friendly detergents in Indonesia. Previous purchase experience can encourage positive attitudes from consumers of environmentally friendly detergents. Therefore, environmentally friendly detergent manufacturers should organize marketing campaigns that

emphasize the sustainable benefits of using environmentally friendly detergents. So consumers are more motivated to use environmentally friendly detergents

Environmental consciousness has a positive effect on purchase intention, so environmentally friendly detergent producers can continue to strive to provide information on the raw materials in environmentally friendly detergent products and ensure that these ingredients are truly environmentally friendly and not harmful to the environment.

Green attitude has the strongest influence on purchase intention, so producers of environmentally friendly detergents must pay close attention to the green attitude of consumers of environmentally friendly detergents by displaying advertisements that show environmentally friendly activities and using influencers who care about the environment.

This research has several limitations, where these limitations can become opportunities and references for further research in the future. The following are several recommendations for further research, namely that the respondents in this study were dominated by students so that the results obtained were less heterogeneous. Future research can expand data collection media so that it is hoped that more diverse sample characteristics can be obtained. This study did not include the area of origin of the respondents so that the results of the data on the distribution of respondents were less than optimal. Future research can include regional origins in more detail so that it is hoped that we can obtain more diverse respondent identity data.

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