

The Effects of Environmental Consciousness, Ascribed Responsibility and Attitude toward Green Purchase Intention

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Abstract— Environmentally friendly products are an effort to provide environmental protection that requires special/urgent attention for the whole world. Thus, this research aims to examine the influence of environmental concern, ascribed responsibility on consumers' attitudes and purchasing intentions towards green products. This research was conducted in Central Java involving 260 people as respondents taken using purposive sampling techniques. The results of data collection were processed and analyzed using SEM-AMOS. The research results show that environmental consciousness and ascribed responsibility have proven to be positive and significant on consumers' attitudes and purchasing intentions for green products. Other findings prove that attitude is the best predictor in increasing consumer purchase intentions for green products. This research proves that consumers' purchasing intentions for green products increase if they are influenced by attitude, environmental consciousness, and ascribed responsibility.

Index Terms— Green product, Purchase intention, Environmental consciousness, Ascribed responsibility.

I. INTRODUCTION

Environmental problems in this decade have received special attention from business practitioners in all sectors, including special attention from researchers (Kautish et al., 2019; Laheri et al., 2024). This is what encourages academics to conduct further studies on environmental problems, one of which is the study of green marketing and green behavior. The interpretation of most studies on green products in the context of purchasing intentions and behavior on environmentally friendly products has increased. The increasing demand for green products requires providers to implement appropriate marketing strategies and prove their corporate image and social responsibility (Zhang et al., 2018). Apart from that, human resources have an important role in creating environmentally friendly products (Aboelmaged & Hashem, 2019).

Consumers' awareness of the surrounding environment causes increased knowledge and changes in their behavioral intentions regarding the products they will consume (Mohd Suki, 2016; Agrawal et al., 2023). The negative impact resulting from environmental pollution will reduce consumers' purchasing intentions towards a product (B. C. Kim et al., 2020; Lata & Kumar, 2022). Consumers are increasingly aware that their consumption activities have had a negative impact on the environment and they always tend to consume environmentally

friendly consumption decisions (Palomino Rivera & Barcellos-Paula, 2024). In particular, there is research showing that consumer awareness of health and the environment influences their intention to purchase environmentally friendly products (Nguyen et al., 2020). Furthermore, environmentally friendly products go hand in hand with the impact and responsibility borne by the company (Lata & Kumar, 2023). In line with that, companies are expected to be able to maintain their behavior and responsibility towards consumer feelings (Verma et al., 2019).

The problem of consumer behavior regarding green products really needs to be studied further, because there is still a debate about green behavior. The problem in this research is based on the empirical gap from previous studies that connect environmental consciousness and ascribed responsibility to consumers' purchase intentions for green products. Previous research reveals that environmental consciousness plays an important role in predicting purchase intentions for green products (N. Kim & Lee, 2023)(Laheiri et al., 2024). This result is in contrast to a previous study conducted by (Mishal et al., 2017) which found that consumers' purchase intentions for green products were not influenced by environmental consciousness. Previous research revealed that ascribed responsibility is a good antecedent for consumers' purchase intentions for green products (Dong et al., 2023). However (Guo et al., 2019) revealed that the use of green products as outlined in green sustainable practices is not influenced by ascribed responsibility. However, (Prakash et al., 2019) stated that the main key in consumer purchase intentions regarding green product purchase intentions is the positive attitude shown by consumers. Therefore, the aim of this research is to fill this research gap by using consumer attitudes towards green products as mediation.

II. LITERATURE REVIEW

A. Green Purchase Intention

Consumer behavior towards green products is behavior that is based on consumers' ecological awareness regarding the overall pro-environment concept (Wang et al., 2020). One of the stages in the purchasing process is to find one of the factors that is very close to the purchasing decision, namely purchasing intention (Kautish et al., 2019; Ahmad & Zhang, 2020). Environmentally friendly purchasing intention (GPI) is an antecedent of behavior as a first step for consumers in the future to purchase pro-environmental products (Palomino Rivera & Barcellos-Paula, 2024). Green purchasing intention refers to an individual's readiness to undertake environmentally friendly purchasing behavior, mainly reflecting the consideration of less pollution (Chen & Deng, 2016; Al-Adamat et al., 2020). It is assumed to be a direct antecedent of the behavior.

B. Environmental Consciousness, Attitude and Green Purchase Intention

Green marketing research highlights the importance of the relationship between Environmental Consciousness and consumer purchase intentions for green products (Kautish et al., 2019). Zelezny and Schultz (2000) define environmental consciousness as "an element of a belief system that exhibits specific psychological influences related to an individual's tendency to join a regime of pro-environmental behavior". Individuals who have high awareness of their environment will appreciate and have a positive attitude, whereas individuals who do not understand the negative impacts of environmental pollution will have a bad attitude towards their environment (Prakash et al., 2019). Attitude has a very important role in consumer behavior towards preference for green products (Khaola et al., 2014). Consumers' positive attitudes towards green products can be predicted by consumer awareness of the surrounding environment. Previous studies reveal that the higher consumers' awareness of the environment will have a positive impact on their attitudes towards green products (Kirmani et al., 2022).

Individual tendencies in pro-environmental behavior refer to their psychological conditions that can differentiate purchasing behavior, such as not buying products that are harmful to the environment (Mishal et al., 2017). This is closely related to consumers' behavioral intentions towards environmentally friendly products (Maichum et al., 2017). Previous studies state that individuals' environmentally friendly consumption behavior is strongly influenced by their intrinsic factors (N. Kim & Lee, 2023). The essence of this concept explains environmental awareness and environmental problems. Apart from that, (Laheiri et al., 2024) stated that environmental factors are a manifestation of environmentally friendly behavioral intention. Thus, the hypothesis proposed in this research is as follows:

H1: environmental consciousness has positive effect on attitude toward green product

H2: environmental consciousness has positive effect on green purchase intention

C. Ascribed Responsibility, Attitude and Green Purchase Intention

Recently, researchers have increasingly focused on environmental concern and how this is an important factor in determining consumer behavior (Prakash et al., 2019). Consumers' concern for the environment is closely related to the responsibilities given because it can influence pro-environmental attitudes, intentions and behavior (Dong et al., 2023). Responsibility plays an important role in consumer behavior because it is considered the basis for forming individual attitudes and basic principles in caring for the environment. Research that describes Ascribed Responsibility as an antecedent of attitudes and intentions is still very rare and this is something new (Verma et al., 2019). Given responsibility refers to the sense of accountability experienced by individuals for the negative impacts resulting from their failure to carry out pro-environmental behavior (Raza and Farrukh, 2023).

Assigned responsibility is an important part of normative activation theory, which emphasizes whether a person can take responsibility for the consequences of certain behaviors and change unfavorable behavioral attitudes (Esfahani et al., 2015). Ascribed Responsibility is a key factor that can shape individuals in pro-environmental behavior and also act as a catalyst for pro-environmental behavior, for example when managers identify their own behavior as responsible, they will take positive action to encourage the company's environmental protection behavior (Guo et al., 2019). Thus, the hypothesis proposed is:

H3: Ascribed Responsibility has positive effect on attitude toward green product

H4: Ascribed Responsibility has positive effect on green purchase intention

D. Attitude and Green Purchase Intention

Referring to the theory of planned behavior (Ajzen, 2015) explains the relationship between an individual's attitude and intention towards a particular behavior, where attitude is the best antecedent in predicting behavioral intentions. Attitudes show consumer preferences for environmentally friendly products, such as good and bad, beneficial and non-beneficial, positive and negative, likes and dislikes, and so on (Riptiono, 2022; Kirmani et al., 2022). A positive attitude towards green products is the first step in providing stimulation to consumers to grow their intentions because a positive attitude is a good predictor of behavior. This is important because consumer attitudes can be used to understand consumer intentions and behavior towards green products available on the market (Chin et al., 2019; Park & Lin, 2020). Furthermore, attitudes can be used as a driving force for consumers who may have a moral obligation to buy environmentally friendly products if the product quality is high (Cheung & To, 2019). Previous studies also prove that attitude is a variable that influences consumers' purchasing intentions for green products (Palomino Rivera & Barcellos-Paula, 2024). Thus, the hypothesis proposed in this research is:

H5: Attitude toward green product has positive effect on green purchase intention

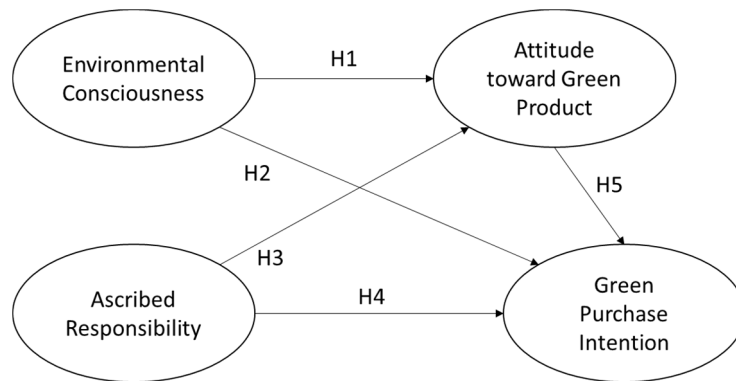


Figure1: Research Model

III. METHODS

This research is quantitative research using a survey method conducted in Central Java, Indonesia. The sample size considered for this research refers to the sample size which can be determined from 15 - 20 times the total parameters used (Hair et al., 2010). Environmental consciousness was measured using 4 items adopted from a previous study by (Mishal et al., 2017). Ascribed responsibility was measured using 3 items adopted from a previous study by (Verma et al., 2019). Attitude toward green products was measured using 3 items adopted from a previous study by (Prakash et al., 2019). Green purchase intention was measured using 3 items adopted from a previous study by (Kautish et al., 2019). A total of 13 indicator items were used in this research, therefore

the sample size used was $13 \times 20 = 260$ people. The purposive sampling technique was used, and the analysis used in this research was SEM-AMOS.

IV. RESULTS AND DISCUSSION

The analysis of respondent's demographics includes their gender, age, educational, and occupation show in table 1. A total of 260 valid responses were collected from the sample. The demographics showed dominated male 138 (53.08%), but the females represented about 122 (46.92). The aging of the sample showed range 40 – 49 years old is 83 respondents (39.92%). Majority of the educational level hold a bachelor degree is 109 respondents (41.92%), and the occupation titles most of them were employees (98) or 37.69%.

TABEL I. DESCRIPTIVE OF RESPONDENTS

No	Profiles of respondents (n = 260) Characteristics	Frequency	Percentage (%)
1	Gender		
	Male	138	53,08
	Female	122	46,92
2	Age		
	20 – 29	45	17,31
	30 – 39	67	25,77
	40 – 49	83	31,92
	≥ 50	65	25,00
4	Highest Education Level		
	≤ High School	36	18,85
	Diploma	83	32,95
	Bachelor	109	41,92
	Master & Doctoral	32	12,31
5	Occupation		
	Student	36	13,85
	Entrepreneur	82	31,54
	Employee	98	37,69
	Government Employee	28	10,77
	Others	16	6,15

In this study, data were analyzed using the PLS-SEM statistical method to determine the weight of each research indicator. According to Hair (Hair Jr et al., 2016), the PLS-SEM method was chosen because there is a lack of normality in the data distribution and research requires latent variable scores for follow-up analyses. PLS-SEM method was used to investigate the reliability and validity of the research model. The reliability of the model is assessed by using Cronbach's alpha (α) and composite reliability (CR). While the validity of the research model is assessed by using convergent validity and discriminant validity. Convergent validity is attained by using the average variance extracted (AVE) and discriminant validity is assessed by using the Heterotrait-Monotrait (HTMT) ratio. The measurement model indicate that the research model has successfully met the reliability and validity criteria show in table 2.

TABLE II. RESULT OF VALIDITY AND RELIABILITY

Variables	Items	Loading Factors	Alpha (α)	CR	AVE
Green Purchase Intention	GPI1	0.817	0.891	0.901	0,753
	GPI2	0,824			
	GPI3	0,739			
Attitude toward Green Product	ATGP1	0.742	0.753	0.883	0.716
	ATGP2	0,801			
	ATGP3	0.756			
Environmental Consciousness	EC1	0.712	0.802	0.890	0,670
	EC2	0.709			
	EC3	0.815			
	EC4	0.869			
Ascribed Responsibility	AR1	0.912	0,757	0,930	0.818
	AR2	0.768			
	AR3	0.844			

Table 2 shows Cronbach's alpha coefficients were all higher than the reference value of 0.6, satisfying the appropriate level of internal consistency. The item-to-concept average correlation coefficient also exceeded the reference value of 0.6. Additionally, the value of the factor loading value was more than 0.5, which is the reference value; the value of the reliability coefficient was more than 0.6, which is the reference value; and the

variance extraction value was more than 0.5, which confirmed the convergence validity of the constituent concept. Goodness of fit result (table 3) of verifying the overall suitability of the entire model, X2 was 1.75 and the p value was 0.000. RMSEA was 0.06 below the recommendation level of 0.08, GFI was 0.91 above the recommended level (>0.90), and AGFI was 0.92 above the recommended level (>0.80). NFI was 0.93, CFI was 0.94.

TABLE III. GOODNESS OF FIT INDICES

Fit Indices	X ²	RMSEA	GFI	AGFI	NFI	CFI
Recommended	<3	>.08	>.90	>.80	.90	.90
Results	1.75	.06	.91	.92	.93	.94

TABLE IV. THE HYPOTHESIS RESULTS

Hypothesis	Path	B	Sig.	Result
H1	EC → ATT	.344	.000	Accepted
H2	EC → GPI	.267	.001	Accepted
H3	AC → ATT	.387	.000	Accepted
H4	AC → GPI	.301	.002	Accepted
H5	ATT → GPI	.595	.000	Accepted

Based on table 3, it can be seen that all hypothesis testing results were declared accepted. In the H1 test, the relationship between EC and ATT is tested with a significance value of 0.000 and an estimated value of 0.344. Thus the results of testing the first hypothesis are declared accepted. This means that the higher consumer awareness of the green environment has an impact on increasing their positive attitude towards the surrounding environment. The results of this research are in line with previous research which states that good consumer attitudes towards the environment can be predicted by environmental awareness (N. Kim & Lee, 2023). Next, the H2 test tests the relationship between EC and GPI with a significance value of 0.001 and an estimated value of 0.267. Thus, the results of testing the second hypothesis are declared accepted. This means that the higher consumer awareness of the surrounding green environment will be able to increase consumer purchasing intentions for green products. The results of this research are in line with previous research conducted by (Laheri et al., 2024) which found that environmental awareness is the foundation for consumers in increasing purchasing intentions towards green products.

Hypothesis (H3) testing tests the relationship between AC and ATT with a significance value of 0.000 and an estimated value of 0.387. Thus, the results of testing the third hypothesis are declared accepted. This shows that the higher the ascribed responsibility, the greater the consumer's attitude towards environmentally friendly products. The results of this research are supported by previous research which found that responsibility has an important role in shaping consumer attitudes towards green products (Esfahani et al., 2015). Likewise, the H4 test tests the relationship between AC and GPI with a significance value of 0.002 and an estimated value of 0.301. Thus, the results of testing the fourth hypothesis are declared accepted. The greater responsibility consumers have for the environment, the higher their purchasing intention towards green products. The results of this research are in line with previous research conducted by (Dong et al., 2023), they found that consumer purchase intentions for green products can be predicted by ascribed responsibility.

H5 testing tests the relationship between ATT and GPI with a significance value of 0.000 and an estimated value of 0.595. Thus, the results of testing the fifth hypothesis are declared accepted. This means that attitude has a very important role in growing consumers' intention to buy green products. The more positive the consumer's attitude, the higher the consumer's intention to buy green products. The results of this research are supported by previous research which states that attitude is an important key in increasing consumer purchase intentions for green products (Palomino Rivera & Barcellos-Paula, 2024).

V. CONCLUSION

This research shows that the variables used to test the influence of consumer purchasing intentions on green products have proven to be positive and significant, this is proven by the acceptance of all the proposed hypotheses. Consumer environmental consciousness makes a greater contribution than ascribed responsibility to consumer attitudes towards green products and purchase intentions towards green products. However, attitude is proven to be the dominant variable in influencing purchase intention. This research is able to provide practical implications for business people in improving the marketing of green products by knowing consumer attitudes and behavior towards the green products they sell in the market. Apart from that, research related to ascribed

responsibility is still very rarely conducted so that future research can further explore the antecedents of ascribed responsibility.

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