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## Article

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# Factors affecting eco-friendly purchase intention: subjective norms and ecological consciousness as moderators

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## MARKETING | RESEARCH ARTICLE

# Factors affecting eco-friendly purchase intention: subjective norms and ecological consciousness as moderators

Dikdik Harjadi<sup>1</sup> and Ardi Gunardi<sup>2\*</sup>

**Abstract:** The aim of the study is to examine the influence of altruistic values, egoistic values, and perceived consumer effectiveness on eco-friendly purchase intention, with moderating effect of subjective norms and ecological consciousness using the stimulus organism response paradigm. The primary data were collected from 491 Indonesian customers using snowball sampling, and the data were analyzed using a structural equation model. The results revealed that altruistic, egoistic, and perceived consumer effectiveness had a significant impact on consumer attitude and perceived behaviour control. Similarly, customer attitude and perceived behaviour control influenced eco-friendly purchase intention. Subjective norms showed positive moderation between attitude, perceived behaviour control, and purchase intention; similarly, eco-friendly consciousness had a positive connection between attitude and purchase intention but not between perceived behaviour control and purchase intention. The study's results will help green marketers devise new strategies for attracting and increasing sales volume in Indonesia's growing markets.

**Subjects:** Environmental Management; Marketing; Marketing Research; Consumer Behaviour; Marketing Management

**Keywords:** altruistic value; egoistic value; perceived consumer effectiveness; eco-friendly purchase intention; subjective norms; ecological consciousness

### 1. Introduction

Eco-friendly goods are those that are made without the use of chemical ingredients, such as organic products, which are high in antioxidants, and thus, beneficial to health (Lian et al., 2016). Because environmentally friendly goods do not cause harm to the customer, the demand for them from health-conscious customers has grown in recent years. Consumption of environmentally friendly products, such as organic veggies, is advised for customers with health issues (Lavuri, 2022; Mohamad et al., 2010). Consumer awareness of the benefits of eco-friendly goods has grown due to consumer education (Lavuri & Susandy, 2020). Customers nowadays are more critical in contributing to environmental conservation by implementing sustainable buying (Luthra et al., 2016). The eco-friendly sector is critical to protecting the environment and building resilience, and sustainable and environmental packaging is a new invention that aims to strike a balance between the environmental growths of the economy (Lavuri, 2022; Martinho et al., 2015). Numerous companies are now launching campaigns to enlighten customers about the benefits of green marketing (Han et al., 2015). According to current research, packing material and form are significant characteristics of a product (Chekima et al., 2016). Consumers favour environmentally friendly packaging, while non-recyclable wrapping has a detrimental effect on their views about

using such goods. Scholars emphasise the significance of human values (Gatersleben et al., 2014; Stöckigt et al., 2018), but just a few investigations have looked at the impact of values on product assessments (Bickart & Ruth, 2012). The main drivers of ethical conduct are egoistic and altruistic ideals (Yadav, 2016).

Furthermore, research suggests that these two principles significantly affect customer attitudes toward ethical purchasing (Gatersleben et al., 2014; Yadav, 2016).

Furthermore, research suggests that these two principles significantly affect customer attitudes toward ethical purchasing (Andersch et al., 2019; Naess, 1990; Tsarenko et al., 2013).

Nevertheless, these two values are opposed and inversely linked since ‘care for another’ and ‘self-concern’ are distinct (Stern et al., 2019). As a result, it is critical to evaluate the impact of these values individually to get a good insight into the role of consumer acceptability of sustainable and environmental packaging. Thus, the researchers suggested two research questions (RQ):

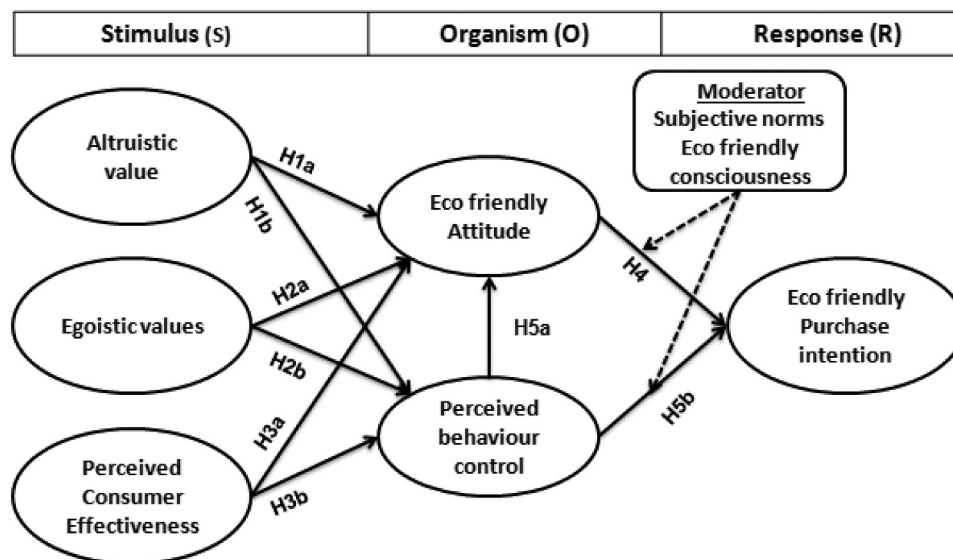
RQ1: Do altruistic values, egoistic values, and perceived consumer effectiveness positively affect consumers’ attitudes and perceived behaviour towards eco-friendly purchase intentions?

RQ2: Consumers’ attitudes and perceived behaviour have a positive effect on eco-friendly

RQ3: Will subjective norms and eco-friendly consciousness be a cheerful moderator of attitudes, perceived behaviour, and eco-friendly purchase intentions?

The researchers used the SOR (stimulus organism response) paradigm, and this paradigm demonstrates how stimulus variables (altruistic values, egoistic values, and perceived consumer effectiveness) will influence organism variables (consumers’ attitude and perceived behaviour) and how organism factors influence response variables (eco-friendly purchase intentions) (See, Figure 1). Research in this field is limited, varied, and inconclusive. New insights had obtained as this research blends the ‘‘Stimulus-Organism-Response’’ theory. The study findings will assist green merchants in better understanding eco-friendly purchase intentions and developing innovative tactics to increase eco-friendly purchase sales; and it would assist policymakers and marketers in better grasping the problem and giving significant insights.

Figure 1. Proposed research model.



## 2. Theoretical background

### 2.1. The Stimulus organism response

The present study uses the previously stated conceptual framework centred on a fusion of the S-O-R idea. The SOR method is a neo-behavioural paradigm that explains how people regard themselves favourably or adversely in response to various stimuli (Jacoby, 2002). This paradigm shows the organism's (R) behavioural reactions while taking into account how a stimulus (S) influences internal states (O), which helps in the activation of cognitive or emotional processes. Researchers used the SOR paradigm to examine variations in decision-making in several backgrounds, including the service market (Gupta et al., 2019), tourism (Kim et al., 2020), and green purchases (Konuk, 2019). The SOR method is utilised in this study to evaluate the impact of specified factors (S) on customer eco-friendly purchasing. Altruistic values (environmental care), egoistic values (health concern), and perceived consumer effectiveness are stimulus elements, eco-friendly attitude and perceived behavioural control are organism factors, and eco-friendly purchase intention is a response component. This research shows how stimulus variables affect individuals (S), the organism, and the concerned state of consumers (O). There is a dual effect of attitude and perceived behavioural control on this condition. It impacts customer purchase intentions for eco-friendly goods simultaneously (R; Erni et al., 2021; Fleşeriu et al., 2020).

## 3. Hypotheses and model development

### 3.1. Altruistic values (Environmental concern) → eco-friendly attitude and perceived behaviour control

Altruistic value (environmental concern) and eco-friendly conduct developed as contemporary ideas in the recent period, and academics concentrated on environmental concern and behaviour and how they seem to be a significant predictor of consumer behaviour (Bamberg, 2003; Yadav, 2016). Several studies have shown that environmental concern is a manifestation of altruistic ideals. Altruistic principles are vital for influencing and developing consumer attitudes towards the environment (Heberlein, 1972; Lavuri, 2022). Shoppers' environmental awareness is increasing as a result of their altruistic ideals. It is also increasing due to their altruistic beliefs, which is reflected in their attempts to solve environmental issues through green buying (Birch et al., 2018; Kong et al., 2016; Magnier & Schoormans, 2015; Prakash et al., 2019; Zou & Chan, 2019). Furthermore, consumers are becoming more conscious of the environmental effect of the material for the packaging that is routinely utilized (Birch et al., 2018; Koenig-Lewis et al., 2014; Kong et al., 2016; Lavuri, 2022; Prakash et al., 2019). Consumers are inclined towards altruistic values and their contribution to sustainable living and the circular or sharing economy and their consumers concerned about the well-being of other individuals and the environment have positive attitudes toward organic consumption (Edbring et al., 2016; Erni et al., 2021). EC plays a significant role in the decision-making process of consumers (Lavuri & Susandy, 2020; Rusyani et al., 2021). An increasing number of EC consumers would boost both purchase intention and behaviour, and therefore, the individual EC is a significant inducement to purchase (Hutchins & Greenhalgh, 1997; Lavuri et al., 2021; Rusyani et al., 2021). Similarly, EC has a significant effect on the design of green packaged products, increased individual EC leads to the purchase of environmentally friendly goods, apps, and automobiles (Sangroya & Nayak, 2017; Wang et al., 2017; Birch et al., 2018; Jaiswala & Kant, 2018; Zou & Chan, 2019; Rusyani et al., 2021; Lavuri, 2021); and a high connection between EC and GA (Lavuri & Susandy, 2020; Rusyani et al., 2021; Lavuri, 2021). Consumer interest, social values, and environmental values all influence consumer choice for green goods positively (Heo & Muralidharan, 2019), and the EC has a substantial positive effect on the GA and PBC (Lavuri & Susandy, 2020; Rusyani et al., 2021). As a result, consumers' environmental concerns are a significant element in their purchasing choices for eco-friendly goods. Therefore, we hypothesized:

**H1a: Altruistic values have a positive influence on eco-friendly consumer attitudes**

**H1b: Altruistic values have a positive influence on consumer perceived behaviour control**

### **3.2. Egoistic values (health concern)—→ eco-friendly attitude and perceived behaviour control**

Prior research studies demonstrated that customer health worries may influence their attitude toward eco-friendly goods (Kumar et al., 2017; Prakash & Pathak, 2017); and health-conscious customers are more likely than others to engage in environmentally beneficial behaviour (Lavuri, 2022; Rana & Paul, 2017). A pro-self-concept egoistic value paradigm is presented regarding the individual or family health concern. People may be motivated to engage in environmentally friendly activities by self-benefits (egoistic values), such as improved health and a higher quality of life (Verma et al., 2019). Most customers choose eco-friendly goods because they believe they are healthier. On the other hand, prior research has identified concerns about safety as essential considerations when purchasing green goods (Prakash & Pathak, 2017; Yadav, 2016). According to the present literature, consumers' health concerns as a factor that influences their attitude in their decision to purchase green goods (Lavuri, 2022; Nguyen et al., 2017; Prakash & Pathak, 2017). Consumers' attitudes are focused on conscientious consumption of products to contribute to health and ecology; these consumers prefer environmentally friendly and locally-made products increasing the purchase intention of organic foods (Chou et al., 2012; Lavuri, 2022). In addition, health-conscious customers are more likely than most to engage in the environmentally beneficial activity (Zanoli & Naspetti, 2002). Therefore, we hypothesized:

**H2a: Egoistic values have a positive influence on eco-friendly consumer attitudes**

**H2b: Egoistic values have a positive influence on consumer perceived behaviour control**

### **3.3. Perceived consumer effectiveness—→ eco-friendly attitude and perceived behaviour control**

Individual ecological concerns do not inherently have a beneficial impact on the procurement of eco-friendly products (Vermeir & Verbeke, 2005). Butler and Francis (1997) found that consumers presume that the environment can be addressed when purchasing apparel items only, and not in real buying scenarios. Prior environmental and socially responsible studies have found that there is a substantial difference between consumer purchasing behaviour and environmental concerns, both in terms of appearance, product types, and textiles (Lavuri, 2022; Roberts, 1996). The research attempts to bridge the gap between environmental issues and consumer sustainability. PCE is one of the keys and psychological factors in considering consumer behaviour in environmental consciousness (Roberts, 1996). As far as previous experiments are concerned, PCE impacts consumer purchase intention for environmental consumption (Ellen et al., 1991). PCE represents the degree to which the individual's conduct can create problem-solving consequences and differences (Ellen et al., 1991), and it assesses the consumer's willingness to lead by particular activities to particular sustainability benefits (Roberts, 1996). A high level of PCE enables consumers to demonstrate positive attitudes toward sustainable goods through actual buying behaviour (Moon & Lee, 2012; Vermeir & Verbeke, 2005). It is a significant indicator of social responsibility, which has a direct influence on ecologically and economically sustainable use, and on energy conservation and recycling activities (Kang et al., 2016). PCE is closely associated with the customer's willingness to consume eco-friendly goods (Lavuri, 2022; Uddin & Khan, 2016). Moon and Lee (2012) stated that consumers quickly buy green goods because their trust and PCE in green goods are very high. Therefore, we hypothesized

**H3a: Perceived consumer effectiveness has a positive influence on eco-friendly consumer attitudes**

**H3b: Perceived consumer effectiveness has a positive influence on consumer perceived behaviour control**

**3.4. Eco-friendly attitude—> perceived behaviour control and eco-friendly purchase intention**

Attitude refers to an individual's psychological habits of assessing the degree of gain or loss associated with a specific situation (Bonne et al., 2007). Environmental Assessment was a deciding factor in favour of the environment (Nagar, 2015). Consumers who had a GA experience felt connected to the world (Zelezny et al., 2000); and a previous study indicates that positive GA is a critical variable (Uddin & Khan, 2016a; Lavuri & Susandy, 2020) that directly affects the GPI and a positive correlation with EC (Chaudhary & Bisai, 2018; Lavuri, 2022, 2021; Nguyen et al., 2017; Rusyani et al., 2021; Zhao et al., 2014), clothes purchase behaviour, and GPB (Chaudhary & Bisai, 2018; Tilikidou, 2007). According to literary assessments, GA is a significant factor affecting GPI (Lavuri et al., 2021; Liu et al., 2019). The activities of SNs and GA help increase PIs rate to purchase behaviour conversion (Shashi et al., 2015; Singh & Verma, 2017; Sun & Wang, 2019). Purchase behaviour significantly influences green purchasing habits (Khoiruman & Haryanto, 2017; Liu et al., 2020; Lavuri et al., 2021); and factors like GA (Uddin & Khan, 2016; Liu et al., 2020; Sun & Wang, 2019), EK, consumer personality traits, eco-sustainable products, eco-sustainable marketing techniques (Liu et al., 2020), and EC were used to calculate GPI (Lavuri & Susandy, 2020). Thus, the hypothesis below was suggested.

**H4a: Eco-friendly attitude has a positive effect on eco-friendly purchase intention**

**3.5. Perceived behaviour control—> eco-friendly purchase intention**

PBC denotes how easy or difficult it is to carry out a specific activity (Ajzen, 1991). It happens when a person is motivated and capable of doing, instead of having one or no reasons (Kautish et al., 2019, 2019; Lavuri, 2022; Zhou et al., 2013). The TPB model requires the formation of a prior intention to build perceived behavioural control. Customers' perceived allowances are perceptual evidence that they possess while purchasing goods. Olsen (2004) asserts that key PB variables like convenience and efficiency affect consumer food purchasing. Many studies have indicated that PBC is the essential human predictor and positively connects with GA and GPI, mainly in organic products/foods (Lavuri, 2021; Moser, 2015; Rusyani et al., 2021) and green hotels (Asif et al., 2018; Oroian et al., 2017; Singh & Verma, 2017). The PBC's role is to assess customers' purchase intentions and behaviour toward green products (Chaudhary & Bisai, 2018; Khoiruman & Haryanto, 2017; Paul et al., 2016; Yadav & Pathak, 2017). Thus, the hypotheses below were suggested.

**H5a: Perceived behaviour control has a positive effect on eco-friendly purchase intention**

**H5: Perceived behaviour control has a positive effect on consumer eco-friendly attitude**

**3.6. Moderating effect: Subjective norms and Eco-friendly consciousness**

A subjective norm refers to perceived societal pressure to perform or not, to particular conduct (Ajzen, 1991; Han et al., 2010), which is an individual view and significantly impacts a person's choice and action (Hee, 2000; Lavuri, 2021). SNs were established by family members, peer groups, friends, and co-workers; and their effect on individuals/consumers' choices and attitudes toward buying green (Du et al., 2017; Hansen et al., 2018; Paul et al., 2016; Singh & Verma, 2017; Teng et al., 2014), organic goods (Dean et al., 2012; Rusyani et al., 2021), and most customers revisited green hotels (Chen & Tung, 2014; Teng et al., 2014). Subjective norms significantly impact green consumption (Lavuri et al., 2021; Sun & Wang, 2019), and family members' values and norms have been strongly linked with green purchase intention (Kautish et al., 2019, 2019; Rusyani et al.,



2021). Subjective standards had a substantial impact on customer purchasing intentions for green products in the Indian context (Lavuri, 2021; Rusyani et al., 2021; Sun & Wang, 2019; Yadav & Pathak, 2017). However, Khare (2015) showed no relationship between SNs and GPB, while Paul et al. (2016) concluded no significant association between subjective norms and GPI intent. Subjective norms were a significant influence in encouraging green purchase intentions. Thus, the hypothesis below was suggested.

**H6a: Subjective norms have a moderation association between eco-friendly attitude and eco-friendly purchase intention**

Prior research illustrated that ecological consciousness and behavioural intentions have a strong connection in the context of green marketing (Kautish et al., 2019; Mishal et al., 2017), and this multifaceted concept differs from its precursors and psychological consequences on a low level (generic) to a high one (product; Sharma & Bansal, 2013). Perceived environmental benefits have emerged as the most reliable readiness indicators to support ecological initiatives (Joshi & Rahman, 2015). Numerous studies on recycling intents and pro-ecological performance (Yadav & Pathak, 2016), and green purchase behaviour, have validated the TPB (Nguyen et al., 2017); Schlegelmilch et al. (1996) stated that consumers' ecological consciousness influences individual decision-making. Consumers' consciousness also includes positive utilitarian and ecological characteristics and excellent quality, potent motivators for genuine eco-friendly purchases (Kautish & Sharma, 2018). Previous research has shown a favourable relationship between ecological consciousness and ecological purchase intention (Wang et al., 2014) and has an ecological moderate influence on intent and purchase behaviour (Žabkar & Hosta, 2013). We enhance ecological consumers' consciousness by bridging the gap between ecological attitude and perceived behavioural control to act on ecological purchase intention.

**H6b: Eco-friendly consciousness has a moderation association between eco-friendly attitude and eco-friendly purchase intention**

**4. Methods**

**4.1. Research procedure and design**

Using the SOR approach, this research investigates the influence of altruistic values, egoistic values, and perceived consumer effectiveness on eco-friendly purchase intention, with moderating effect of subjective norms and ecological consciousness. Researchers selected the Indonesian sample using the snowball sampling technique, which is a well-accepted strategy that is appropriate for this research study (Lavuri et al., 2022b; Leong et al., 2020; Talwar et al., 2020b). Due to the threat posed by COVID-19, the researchers took all necessary measures to gather preliminary data, which started in the first week of July and will conclude in the third week of September 2021.

The survey method is used to gather primary data from Indonesian consumers with help of a structured questionnaire. Over 650 questionnaires were sent for data collection. However, only 491 (75.5%) were included in the final analysis. The research sample size of 491 with seven constructs of 24 items was also considered acceptable and suitable over ( $418 > 22 \times 15 = 330$ ) the recommended number of 10 to 15 instances per item/parameter given by Kline (2015) and Hair et al. (2015) for SEM model implementation. The demographic profile of the shopper is shown in Table 1.

**4.2. Measures**

To investigate the effect of altruistic values, egoistic values, and perceived consumer effectiveness on the eco-friendly purchase intention of Indonesian consumers, researchers design the research questionnaire using pre-validated items to create a structured questionnaire. Pilot research was conducted



**Table 1. Respondent's demographic status**

Respondent's status		(N = 491)	
		F	%
Age	Below 25 years	55	11.2
	25–35 years	210	42.8
	35–45 years	109	22.2
	45–55 years	98	20.0
	55 and above	19	3.9
Gender	Male	221	52.7
	Female	198	47.3
Education	Below Degree	112	22.8
	Degree	139	28.3
	pg degree	158	32.2
	Above PG	82	16.7
Occupation	Govt employee	152	31.0
	Private employee	195	39.7
	Business	60	12.2
	Home maker	52	10.6
	Students	32	6.5
Monthly income	Below 8 million IDR	57	11.6
	IDR 8 to 9.999	75	15.3
	IDR 10 to 11.999	190	38.7
	IDR 12 to 13.999	123	25.1
	IDR 14 and above	46	9.4

on 51 participants to test the questionnaire. After a pre-test, the questionnaire was completed with slight modifications to minimize sample group issues. The research questionnaire is divided into two sections: the first section has five questions on the sample demographic features. The second section contains eight constructs with 24 items that aid in examining the eco-friendly purchase intention of Indonesian consumers. We adopted a 3-items scale for assessing Altruistic Values and Egoistic Values from the studies conducted by Prakash et al. (2019) and Lavuri (2022). Furthermore, a 3-item scale was adopted for assessing the Eco-Friendly Attitude, Perceived Behavioral Control, Subjective norms and Eco-Friendly Purchase Intention from the studies conducted by Prakash et al. (2019), Lavuri and Susandy (2020), Rusyani et al. (2021), and Lavuri (2021), and Lavuri et al. (2022b), and 3-item scale for measuring Perceived Consumer Effectiveness and Eco-friendly consciousness, adopted from the study conducted by Uddin and Khan (2016). A five-point scale was used to evaluate green women's purchase intention, ranging from the strongly disagree-5 to strongly agree-1.

Researchers utilized the SEM (Structural Equation Model) method to analyze research data to determine the maximum likelihood of the suggested hypotheses (Hair et al., 2015), and evaluated the proposed research model using SPSS and AMOS 23 version software.

## 5. Results

### 5.1. Common method bias (CMB)

The Harman single-factor test was used for data screening to measure the common bias of the technique. The test result showed that a single component explained 31.285% of the total variance; this did not imply common bias problems in the data set. The difference is under 50% (Talwar et al., 2020c). To verify normality, researchers performed kurtosis and skewness tests, and the findings were within the suggestions of  $\pm 1$ . Researchers calculate the variance inflation factor

(VIF; Lavuri et al., 2022b; Talwar et al., 2020b). The results of the predictor variables show that the VIF levels were below three so the investigator has determined that the data set is not a multi-linear problem (Lavuri et al., 2022b).

### 5.2. Reliability and validity

The results of CFA first indicated excellent fit:  $\chi^2/df = 2.152$ ,  $NFI = .944$ ,  $RMSA = .048$ ,  $RFI = .929$ ;  $CFI = .969$  and  $TLI = .961$  for verification by the use of software AMOS 23 (see, Table 4). Due to low factors, certain items such as EA (1-items) and PBC (1-items) were eliminated, which led to an increase in the loading factor above 0.70, and the findings reveal that FL ( $>0.70$ ), CA ( $>0.70$ ), AVE ( $>0.5$ ) and CR ( $>0.6$ ) values were over the threshold value (Hair et al., 2015; see, Table 2). It has been shown that, in all instances, discrimination shows that the validity is higher than interrelation values, and the values are revealed in the bracket (see, Table 3).

### 5.3. Hypothesis testing

The suggested research hypotheses were verified using structural equation modelling, which yielded a satisfactory model fit:  $\chi^2/df = 2.149$ ,  $NFI = .943$ ,  $RMSEA = .048$ ,  $CFI = .968$ , and  $TLI = .961$  and  $RFI = .929$  (Hair et al., 2015). The hypothesis findings showed that H1a to H5 were supported; the findings of the hypotheses showed that AV had a favourable effect on the EA (H1a:  $\beta = .443$ ,  $p < 0.001$ ), PBC (H1b:  $\beta = .141$ ,  $p < 0.05$ ). Likewise, EV had a beneficial effect on EA (H2a:  $\beta = .044$ ,  $p < 0.001$ ), PBC (H2b:  $\beta = .059$ ,  $p < 0.05$ ). PCE had a significant impact on EA (H3a:  $\beta = .137$ ,  $p < 0.001$ ), PBC (H3b:  $\beta = .142$ ,  $p < 0.05$ ). Similarly, EA had a prominent effect on EPI (H4a:  $\beta = .264$ ,  $p < 0.001$ ); PBC has a negative impact on EA (H5a:  $\beta = -.014$ ,  $p < 0.05$ ) and has a positive impact on EPI (H5b:  $\beta = .076$ ,  $p < 0.05$ ). The following are the explications for the variance in the dependent variables: 15.8% for EA and 14.3% for PBC and 17% for EPI (Figure 2 and Table 4).

### 5.4. Moderation analysis

The model includes interaction variables to assess the moderating effects of subjective norms (SNS) and eco-friendly consciousness (EC) on the relationship between EA, PBC, and EPI. Researchers calculated interaction values by assigning standardised values to SNS, EC, EA, PBC, and EPI. The findings showed that SNS was significantly associated with the EA and EPI ( $\beta = .227$ ,  $p < 0.001$ ); but PBC had no association with the EA and EPI ( $\beta = .132$ ,  $p < 0.001$ ).

## 6. Discussions and conclusion

Eco-conscience has emerged as a new symbol of business success in the new millennium, and people from all walks of life are taking note of this. Environmental issues are becoming more severe in Indonesia at an alarming rate. The purpose of this exploratory research is to predict the purchase intentions of environmentally conscious people. The SOR paradigm will be used to investigate the impact of altruistic values and egoistic values and perceived consumer effectiveness on eco-friendly purchase intention and the moderating effect of subjective norms and ecological awareness on eco-friendly purchase intention.

According to the study results, altruistic value (EA) significantly impacts the EA (H1a) and PBC (H1b), which is confirmed in studies conducted by Jaiswala and Kant (2018), Prakash et al. (2019), and Lavuri and Susandy (2020). According to these results, having a high altruistic value level correlates to improved environmental performance. Individual EK has had a significant environmental impact and has been linked to EA and PBC.

Similarly, egoistic value (EV) has a favourable effect on the EA (H2a) and PBC (H2b), as shown by Prakash and Pathak (2017), Rana and Paul (2017), Lavuri (2022), and Kumar et al. (2017). It suggests that egoistic value allows respondents to increase EA purchases of environmentally friendly products so that PBC growth in consumer issues is reflected in efforts to address ecological concerns via green procurement.

**Table 2. Reliability and validity of the study**

<b>Dimensions</b>	<b>FL</b>	<b>CR (&gt;0.6)</b>	<b>AVE (&gt;0.5)</b>	<b>CA (&gt;0.7)</b>
<b>Altruistic Values (Environmental Care) (AV)</b>				
I make extra efforts to buy recycled products.	0.724	0.847	0.651	.846
Due to ecological concerns, I have switched to other goods.	0.815			
When choosing between two comparable goods, I pick the least damaging to other humans and the environment.	0.875			
<b>Egoistic Values (Health Concern) (EV)</b>				
To maintain my health, I select my food wisely.	0.833	0.873	0.698	.871
When purchasing a product, I constantly considered its health advantages.	0.762			
I considered myself to be a health-conscious shopper.	0.906			
<b>Perceived Consumer Effectiveness (PCE)</b>				
I could preserve the environment by purchasing environmentally friendly goods.	0.875	0.842	0.642	.840
I believe I am competent in assisting in the resolution of environmental issues.	0.793			
When I purchase goods, I attempt to think about how their usage will impact the ecology and other customers.	0.73			
<b>Eco-Friendly Attitude (EFA)</b>				
I think eco-friendly goods include less agrochemical.	0.764	0.889	0.730	.885
I think eco-friendly goods include eco-friendly packaging and labelling.	0.911			
Eco-friendly goods are safer and healthier, they benefit everyone.	0.882			
<b>Perceived behaviour Control (PBC)</b>				
I am hoping to buy eco-friendly goods.	0.753	0.879	0.708	.840
I help the environment by buying eco-friendly goods.	0.893			
I have the time, the money, and the desire to purchase eco-friendly goods.	0.873			
<b>Eco-Friendly Purchase Intention (EPI)</b>				
I will consider buying eco-friendly products since they will be less polluting in the future.	0.767	0.824	0.610	.823
I will explore switching to eco-friendly companies due to environmental concerns.	0.762			
I like to spend more than the usual amount on environmentally friendly/sustainable products.	0.814			

Note: Average variance extracted (AVE), factor loading (FL), Cronbach's alpha (CA) and Composite reliability (CR).

**Table 3. Convergent and discriminant validity**

Constructs	AV	EV	PCE	EA	PBC	EPI
AV	<b>(0.807)</b>					
EV	.127	<b>(0.835)</b>				
PCE	.106	.155	<b>(0.801)</b>			
EA	.409	.124	.234	<b>(0.854)</b>		
PBC	.138	-.099	.201	.081	<b>(0.841)</b>	
EPI	.139	-.101	.176	.231	.089	<b>(0.781)</b>

Similarly, perceived consumer effectiveness (PCE) has a favourable influence on EA (H3a) and PBC (H3b), as indicated by Roberts (1996), Vermeir and Verbeke (2005), and Moon and Lee (2012); thus, individual PCE level highly influences people’s desire to make a voluntary environmental sacrifice. EA has a significant impact on EPI (H4), as verified by Paul et al. (2016), Lavuri and Susandy (2020), Rusyani et al. (2021), and Lavuri et al. (2021). PBC has a necessary component for humans and has a statistical effect on EA (H4a) and EPI (H5B) and these results are supported by the studies of Lavuri et al. (2021), Rusyani et al. (2021), and Lavuri (2021).

The moderating impact results showed that subjective norms had a significant correlation between the EA, PBC, and EPI. Similarly, eco-friendly awareness shows a favourable relationship between the EA and EPI but not between the PBC and EPI.

## 7. Implications

### 7.1. Theoretical implication

The SOR was employed in this research to investigate eco-friendly purchase intentions among Indonesian consumers. This work contributes to the literature by comprehensively understanding the components and their interactions with SOR model elements that influence the GPI.

The new study has significant consequences for corporations in charge of advertising eco-friendly goods; because PBC was strongly related to the GPI, the findings of this study will help to understand and increase knowledge of Indonesian consumer behaviour in recent times. If businesses adopt green marketing tactics and advertising campaigns, environmentally concerned clients will be willing to pay more for green goods that meet their demands. As a result, the AV, EV, and PBC have substantially correlated and impacted GPI towards purchase behaviour directly or indirectly. When consumers have a favourable attitude toward the environment, it shows how they choose to consume goods and services. In terms of consumer behaviour, customers will first intend to buy a specific product before deciding which one to buy. Eco-friendly items will be more appealing to customers due to their increased environmental awareness and positive attitude toward the environment. Companies should consider green marketing and green brand image in this manner since they will improve customer loyalty to the business. Advertisers and marketers should use realistic and valid environmental statements in their ads to create a brand reputation, which increases sales and revenues and build brand value in the target audience for their green products. Increasing the availability of green goods may be done by boosting R&D transparency and establishing new distribution channels (Lavuri, 2022). As a result, the issue of acquiring sustainable items is alleviated, and customer perception control is enhanced. Policymakers must shape cultural views on the use of green products.

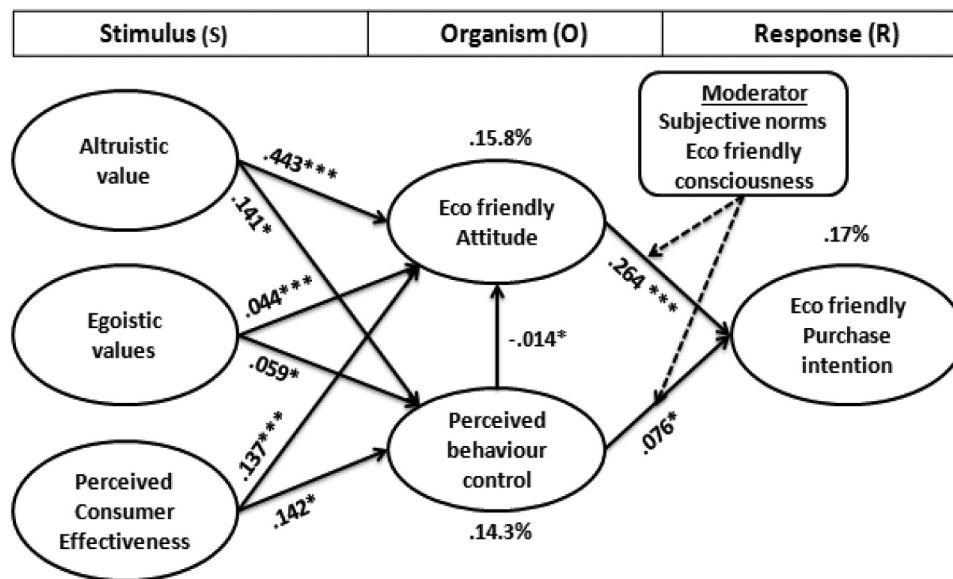
### 7.2. Managerial implication

The findings of this research have important ramifications for company leaders in charge of eco-friendly marketing products. As a result, researchers will better understand Indonesian consumer behaviour while making environmentally responsible purchases. According to the findings of this study, consumers’ attitudes and purchase intentions toward environmentally friendly goods are

Table 4. Hypothesis results				
Hypotheses	Path	$\beta$	p-value	Supported
H1a	AV→ EA	.443	<0.001	Yes
H1b	AV→ PBC	.141	<0.05	Yes
H2a	EV→ EA	.044	<0.001	Yes
H2b	EV→ PBC	.059	<0.05	Yes
H3a	PCE→ EA	.137	<0.001	Yes
H3b	PCE→ PBC	.142	<0.05	Yes
H4a	EA→ EPI	-.014	<0.05	Yes
H5a	PBC→ EA	.264	<0.001	Yes
H5b	PBC→ EPI	.076	<0.05	Yes
Moderation Effect				
Subjective norms	EA→ EPI	.227	<0.001	Yes
	PBC→ EPI	.177	<0.001	Yes
Eco-friendly Consciousness	EA→ EPI	.132	<0.001	Yes
	PBC→ EPI	-.078	>0.001	NO

Note: \*: p < 0.05; \*\*\*: p < 0.001.

Figure 2. Hypothesis results.



influenced more by AV (altruistic values) than by EV (egoistic values). Egoistic motivations are more important than altruistic values in influencing consumer purchasing choices of organic food items; food items are anticipated to have a greater effect on people’s health than the packing material of goods used in daily life. As a result, in the context of food items, health issues could become prominent. Environmental considerations may have a greater impact on the assessment of eco-friendly goods. Our results indicate that these principles (altruistic and egoistic values) have a beneficial effect on customers’ views on environmentally friendly packaged products. Based on this study, Indonesians believe that eating green foods is good for their health and the ecosystem. Positive customer sentiments have also increased purchase intentions for environmentally friendly goods packaged in recyclable materials (Lavuri et al., 2022a). Managers and marketers should address consumers’ environmental concerns while developing packaging strategies and plans (altruistic values) environmentally. Green packaging advertising and marketing may have an altruistic allure. Sustainable and environmental packaging and related advantages should set

the companies apart from rivals. Because of the tight relationship between PBC and an eco-friendly attitude, marketers would be wise to get familiar with the model's components. Market segmentation based on eco-consciousness may be used to target consumers with a high EPI reaction. Making eco-friendly goods more readily available to consumers may have the opposite effect of increasing consumer interest and demand (Lavuri et al., 2022a).

Consumers may have more options if R&D is more transparent and marketers expand distribution networks. Consumer perception control increases when purchasing sustainable products becomes more convenient. Policymakers must influence public views of green products. Environmental awareness is raised via advertisements and campaigns that depict deteriorating environmental situations. Increase your consumption of green foods. Make environmentally sustainable products a socially acceptable norm to influence people's intentions, behaviour, and attitudes towards green products. By enhancing their external image and selling more environmentally friendly goods, companies may utilise CSR efforts to quadruple their revenues. Sustainability and competitiveness will be integral parts of the company's business plan. By working with environmental technology providers, customers, and the environment, companies can remain competitive. Finally, the study's findings will aid legislators in formulating GPU-related legislation and strategies to preserve the environment (Lavuri et al., 2022a).

## 8. Limitations and future directions

Consumers in Indonesia are the only ones included in the study's geographical scope. Research findings and conclusions have limitations as a consequence. Because the study used the snowball sampling technique, it is unlikely that the findings will be applicable across studies. The researchers used a well-chosen sample, but further study is needed. The current research examined the influence of altruistic, egoistic, and perceived consumer effectiveness on eco-friendly purchase intentions in Indonesia's emerging markets, with subjective norms and ecological consciousness serving as moderators. Further study on the impact of socioeconomic and psychological factors on purchasing green products may be done. Although the current study is restricted to green consumers, gender-based studies including generations X, Y, and Z may be contrasted. Researchers only utilised six structures in this study (AV, EA, PCE, EA, PBC, and EPI). Another element that may be included in the present model is perceived risk and pro-environmental behaviour. These factors could help us better grasp the complexity of green purchasing.

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### Correction

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