

## RAMIFICATION OF GREEN PRODUCT KNOWLEDGE AND ATTITUDE ON GREEN PRODUCT SUSTAINABILITY

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### ABSTRACT:

**Purpose:** The increase in competitiveness has provoked a challenge in sustainability of the product in the long run. This has led to the challenge in identifying the factors which cater to product sustainability. The variables green product knowledge and green product attitude are identified as sustainability predictors from the literature and further their relationship values are measured using regression. **Design/methodology/approach:** Questionnaire was developed from various literature sources. Targeted sampling technique was used for collecting the samples from the population. 118 data were collected from various green product retail outlets in Chennai, India. **Findings/results:** The findings of the study, indicates the strong association between the variables green product knowledge, green product attitude and Sustainability. Also, green product attitude predicts nearly 61% and green product knowledge predicts 56% of product sustainability. Attitude positively mediates between green product knowledge and green product sustainability. **Practical Implication:** To spotlight the issues of green product sustainability which is currently growing? From the results, green product knowledge and attitude has to be engaged to the people through advertisements via various media. This would aid in increasing the awareness and demand for green products. **Originality/ Value:** The article addresses the issues of sustainability for the green product. The article also further analysis the various factors which can influence sustainability of the green products.

**Keywords:** Green Product knowledge, Green product attitude, Sustainability, targeted sampling, product expectation, reputation, environmental benefit.

### INTRODUCTION:

In the era of pandemic and climatic changes, consumption of quality food has gained more attention and interest from the consumer end. These factors have evolved in the business for the want for sustainable green products. World Commission on environment and Development 1987, WBCSD 1998, commission of the European community's 2001a, PCC 2007 has all discussed the stability of ecological, economic and social equity leading to sustainability, which is the prima factor for both society and companies.

Also, many organizations have been emerging and developing their business models aiming at the sustainable development of their products. The business also foresees sustainability as an opportunity cost factor which can enhance their product amongst their competitors. Sustainable Development Goals (SDGs) sept 2015 has been aimed on protecting the planet which would lead to prosperity of the life of the living being. Various business models have emerged and started practicing towards a better and healthier tomorrow.

Now the primary focus has shifted to the consumer end. Are all the consumers aware of green products? What is the knowledge of consumers on green products? How does the attitude of consumers affect sustainability? Will Green product Knowledge lead to sustainability?

## **LITERATURE REVIEW**

The theory which supports the research is the Theory of reasoned action, commonly referred to as the TRA model. This theory supports the relationship and broadly explains the behavioral attitude of the individual's in his predictability i.e attitude, intension etc. (Ajzen and Fishbein, 1980; Netemeyer et al., 1993; Oliver and Lee, 2002). The green products purchase intension and their environmental attitudes can be well established in this ground (Vazifehdousta, 2013; Rizwan et al, 2013).

### **Green Product Knowledge:**

Wang & Hazen 2015 defines green knowledge as the consumer's knowledge on product manufactured eco-friendly and the residual are also ecofriendly, thereby not causing any damage to the environment. Mohd suki & Mohd Suki, 2015; Michand & Llerena, 2011 studies clarifies that only the consumers who have knowledge about the green product prefer to buy the product. Hence, knowledge is an influential factor for purchasing decisions and uses it on a long run. There are also contradicting studies, suggesting all the knowledge of consumers has not led to purchase intention. Although, there is an awareness of green knowledge the share value of green product at the market are still low (Rex E, Baumann.H, 2007). Ahmad Reza Salimi, 2019 has examined the consumer's mediation role of perceived value, subjective norm behavioral control towards green product purchase and consumption. Hong Wang, Baolong Ma and Rubing Bai, 2019 knowledge has a greater role in decision making process.

### **Green Product Attitude:**

The act of people in the environmental exploitation of natural resources like dumping waste in rivers, illegal logging, indiscriminate use of plastics, paper etc shows that people in India have less awareness on environmental issues. There is a positive correlation between environmental awareness towards the attitude towards buying green products (Olli, Grendstand and Wallback 2001, Schifferstein & Oude Ophuis, 1998, Chen 2009).

Attitude is a psychological tendency which is acquired from the values and beliefs of a person or product (Eagly & Chaiken 1995, Assael, 1998). There are also many studies which show a strong connection between values leading to attitude which reflects the behavior.

The peoples' general belief on green products is evaluated to a healthy lifestyle and environment. Thus, when green product knowledge is enhanced, the attitude of the people to buy would add to the sustainability of the product in the market for a long run.

Ida Ayu Debora Indriani; Mintarti Rahayu; Djumilah Hadiwidjojo, 2019 has established the relationship between environmental knowledge, Green brand Image, attitude, towards green product purchase intension. Further, signalling theory approach was stimulated green

marketing and integrated the variables attitude, and customer value towards their intension to purchase Ying-Kai Liao 1, Wann-Yih Wu and Thi-That Pham, 2020.

The research article addresses the gap of identifying the various factors which enables the sustainability of green products.

### **OBJECTIVE:**

To identify the factors which aid green product sustainability.

1. To understand the green product knowledge and attitude amongst the population.
2. To examine the influence of Green Product knowledge and Attitude on Green Product sustainability.

### **RESEARCH METHODOLOGY:**

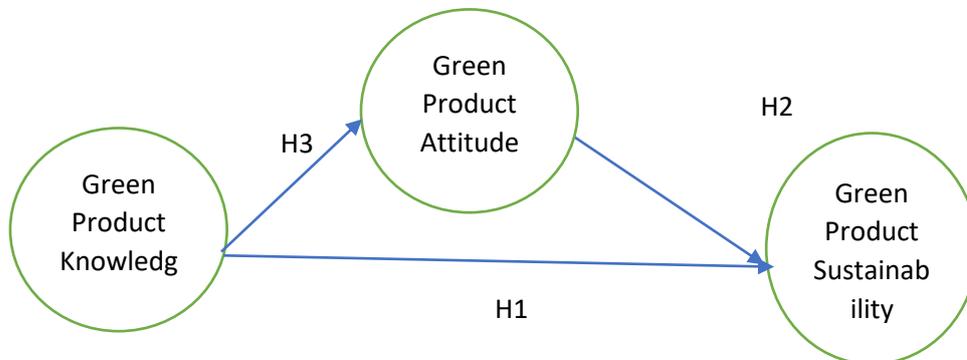
#### **Questionnaire development:**

The research is to analyze the influence of green product knowledge and attitude amongst the people which would impact sustainability on green products and for the environment. Green Product knowledge of the sample population by taking the following criteria - opting as investment for long term, meeting their expectations, reasons for demand, environment friendliness, environmental benefits (Ida Ayu Debora Indriani; Mintarti Rahayu; Djumilah Hadiwidjojo, 2019). Attitude is measured based on the green products reputation, reliability, its environmental performance and dependability, trustworthiness, meets expectation, keeps up promise and protects the environment (Ida Ayu Debora, Indriani; Mintarti Rahayu; Djumilah Hadiwidjojo, 2019). Sustainability is measured by the product's experience and with the nature, origin and sustainability, grappling with host country culture, adaptability and frequency of usage of green products (Iris Vermeira, Wim Verbekeb, 2007).

#### **Sampling technique:**

Targeted sampling is used in the research to identify the people who used the green products at various purchase points of green products in Chennai region Beringer, D. B., 1990. The well-constructed questionnaire instruments were requested to be filled. The respondent rate was too long due to pandemic and walk-ins were also relatively less. Some of the survey forms were also sent via WhatsApp and Google form links to the customer for contactless views for the research. 118 valid data were available for the analysis.

**Proposed Framework**



**DATA ANALYSIS**

The acquired data were validated using reliability test and validity test the cronbach alpha value was 0.938, which acknowledges that data are consistent with the research objective. Also the KMO values of KMO Bartlett's Test for GPK (.780), Attitude (.828) and sustainability (.744) and p values were all proved to be significant. Hence convergence and discriminant validity of the data are tested.

**Table 1: Reliability and validity of data**

Reliability and Validity	Significant value
Cronbach's Alpha	0.938
Green Product Knowledge	KMO 0.780 ; p .000
Green Product Attitude	KMO 0.828 ; p .000
Green Product sustainability	KMO 0.744 ; p .000

**Hypothesis 1: There is no significant influence of green product knowledge on green product sustainability**

Variables	R square value	Anova model Fit Sig value	Coefficient values	Constant Value
Green Product knowledge —> Sustainability	0.565	.000	0.713	1.128

Linear regression was run using SPSS 23 software to understand the relationship of green product knowledge on sustainability of the product. The output shows that there is a

significant relationship as the significant value is .000 and the R square value. Hence, the relationship equation can be written as:

$$\text{Sustainability} = 1.128 + 0.713 \text{ Green Product knowledge.}$$

**Hypothesis 2: There is no significant influence of green product attitude on green product sustainability.**

Variables	R square value	Anova model Fit Sig value	Coefficient values	Constant Value
Green Product Attitude —> Sustainability	0.614	.000	0.749	1.082

Linear regression was executed between the green product attitude and sustainability of the product. The relationship was found to be highly significant with a value of .000. The R square value is 0.61, which shows a high and positive influence of attitude on sustainability.

$$\text{Sustainability} = 1.082 + 0.749 \text{ Green Product Attitude.}$$

**Hypothesis 3: There is no mediation of green product attitude between green product knowledge and sustainability**

Variables	R square value	Anova model Fit Sig value	Coefficient values	Constant Value
Green Product knowledge-> Attitude —> Sustainability	0.688	.000	.370 (GPK) .482 (GPA)	0.600

The regression relationship equation performed clearly directs that, attitude plays an enhanced mediating role between Green product knowledge and sustainability of the product at significant value of .000 and R square value of relationship strength 0.688.

$$\text{Sustainability} = 0.600 + 0.370 \text{ Green Product Knowledge} + 0.482 \text{ Green Product Attitude.}$$

**Statistical Results:**

Hypothesized Paths		Path Coefficients	Results
<b>Direct relationships</b>			
H1	Green Product Knowledge → Green Product Sustainability.	0.713	Supported
H2	Green Product Attitude → Green Product Sustainability	0.749	Supported
<b>Mediating Effect</b>			
H3	Mediation attitude between Knowledge and Sustainability	0.482	Supported

Hence, the statistical results prove that there is a direct and positive relationship between green product knowledge and its sustainability, positive relationship between green product attitude and sustainability. Further, the mediating role of individual's attitude of green product enhances the relationship strength and existence of green product sustainability.

### **DISCUSSION:**

Sustainability of the product is very much essential for a product. Through substantial review of literature in this topic green product knowledge and attitude plays a significant role in purchase decisions of the product. Constant purchasing behaviour leads to sustainability of the product. On analyzing the relationship between green product knowledge and sustainability of the product, green product knowledge proved to predict 56% of the product sustainability. Similarly, the analysis of relationship between green product attitudes towards sustainability reveals green product attitude predicted 61% of sustainability for a green product.

### **MANAGERIAL IMPLICATIONS:**

There is a strong relationship on green product knowledge on product sustainability and green product attitude on sustainability of the product. Hence for product to sustain more of the market, product knowledge should be deliberated effectively. The product attitude at the purchaser has to be advertised or communicated rightly. Reputation of the product, trustworthy, meeting the expectation and environmental protections are the factors contributing to attitude towards product sustainability. Environmental friendly benefits, demands and long term health benefits are factors of green product knowledge which caters to sustainability.

### **CONCLUSION:**

Sustainability is vital for the business in the current competitive era. Thus, understanding the factors contributing to it is essential to be identified. Reputation, reliability, trustworthiness, people expectation, environmental safety is broadly classified into green product knowledge and green for attitude, and they largely are related to sustainability.

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