Antecedents of Buying Intention towards Green Products – A Structural Equation Modelling Approach

Dr. Debasis Pani

Assistant Professor,
Gandhi Institute of Advanced Computer and Research,
Rayagada, Odisha
Mail Id: debasispani.iacr@gmail.com

Dr. Sunil Kumar Pradhan

Associate Professor,
Department of Business Administration,
Berhampur University,
Bhanja Bihar, Berhampur, Odisha.
Mail Id: sunil.sunita123@gmail.com

Abstract

The consumer in the present era is not only sensitive towards environment but also shows his concern towards environmental problem and health issues related to consumption of the non-green product. Hence the consumer ensures his consumption activity should not have any detrimental affect towards the environment; consequently the consumer shows favourable attitude towards the green product and strongly support for the consumption of eco-friendly product. This development of the green consumption behaviour is strongly preceded by the attitude and behavioural belief system of the consumer. Earlier cross-sectional studies have shown the attitude of the consumer is the important factor towards buying intention but earlier studies have not clearly stated the importance of social and control belief on the buying intention of the consumer. The thrust of the current study is to explore the relationship of attitude of green consumer towards their perceived subjective norms, perceived consumption effectiveness and buying intention. The data was collected from 428 respondents by adopting multistage random sampling procedures from important cities of Odisha. The collected data were analyzed with PLS-SEM technique.

The findings of the study revealed that the attitude towards green product is the most important factor that influences perceived subjective norms, perceived consumption effectiveness and buying intention of the consumer. The current study unveils the basic understanding about the consumption behavior towards green product. Further, the findings of the study can encourage marketers in developing strategies to entice green consumers.

Keywords: Attitude towards Green Product, Perceived Subjective Norms, Perceived Consumption Effectiveness and Buying Intention

Introduction

The consumer in the contemporary era are showing formidable attitude towards the green product, their concern for the green product further significantly influenced by the several environmental issues like global warming, resource depletion, and pandemic caused by COVID-19.

(Costa et al., 2020; Dangelico and Pontrandolfo, 2010) Subsequently the consumers are becoming more sensitive towards green product and marketing of green products takes a momentum. The concept of selling environmentally friendly green products is known as "Green Marketing." Green marketing focuses on meeting consumer requirements and wants while causing less detrimental affect towards environment. Consumption behaviour literature states, green products as those that are produced with using less natural resources, have a lower environmental effect, and generate less waste. (Policarpo and Aguiar, 2020). Several studies have shown that the consumer is showing favourable buying intention towards green product, in this juncture understanding the nexus between the buying intention of the consumer and its antecedents is a paramount interest for both the academicians and marketers. Past studies have shown the buying intention of green consumer and it's antecedents in the form of conceptual framework. However such kind of exploration study is in a nascent state in the context of Indian consumer, as the findings of the earlier cross-sectional studies has revealed that the buying behavior of green products is significantly influenced by several factors and it varies with the demography of the consumers. In the view of above discussion; an empirical understanding of buying intention towards green product is required. Hence, the thrust of the current research is to assess buying intention of the consumer towards green product in relation with three critical constructs as "attitude towards green product", "perceived subjective norms" and "perceived consumption effectiveness" in the form of a conceptual framework.

Review of Literature

Attitude towards Green Product (AGP): Attitude has long been emphasised as a crucial factor of behavioural intention. Attitudes may impact a customer's evaluation of a product's qualities, increasing or decreasing individual interest and influencing overall feelings about whether or not to acquire a product. To Fishbein and Ajzen (2005), "attitude as a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object" According to Chen and Deng,

(2016), "attitude towards green products is perceived as the degree to which performance of green purchase behavior is negatively or positively valued by individuals". Several studies related to 'Green Consumption' stated that consumer holding positive attitude towards green product are showing keen interest on acquiring knowledge about green products (Sharma and Dayal, 2016). Studies conducted by Kim and Chung (2011) revealed that the uses of green product increases for those consumer who have subsequently formed favourable attitude and positive mindset towards green product. Theoretical and empirical evidence supported the proposition that attitude towards the green product is a significant predictor of purchase intention of green product. Therefore the current study proposes a directional relationship between attitude towards the green product and buying intention.

Attitude with Subjective Norms and Consumption Effectiveness

The attitude and buying experience determine the consumer's perceived social norms and consumption effectiveness, and the buying experience shapes the consumer's desire to buy ecological products. Vermeir and Verbeke, (2006) found in his study that the environmental and social values encourages the consumer to use green product. Further; several studies reviled that goods with social and natural purposes could encourage consumers to make environmentally friendly purchases (Joshi & Rahman; 2015). A similar study conducted by Sharaf et al., (2015) emphasized the importance of social influence on the attitude of the consumer towards green product. Above empirical findings connotes a positive relationship between the attitude of the consumer and perceived subjective norms. But this study aims to understand whether the perceived social beliefs of the consumer are shaped by the attitude of the consumer or not.

Another important factor that influences that attitude of the consumer is the perceived consumption effectiveness. As consumers can effectively ensure that his or her consumption activity is not damaging the environment. Several studies suggest that perceived consumption effectiveness strongly influences consumers cognitive

thought process and emotional responses (Bandura, 1977). Study conducted by Durndell and Haag (2002) found existence of strong positive correlation between the perceived consumption effectiveness and attitude of the consumer. In contrary, Ng and Law (2015) in his study found that the perceived consumption effectiveness influences the attitude of the consumer. Hence from the above study it is evident that Attitude influences the perceived subjective norms and consumption effectiveness, which is supported by both theoretical and empirical research. As a result, it suggests that attitude positively influences the subjective norms and consumption effectiveness of the consumer.

Perceived Subjective Norms (PSN): Normative beliefs are the main predictors of subjective norms (Ajzen, 2015) In most cases, the acts or responses of family, friends, advisors, or other experts play a significant role in determining consumers buying decision (Davies et al., 2002). The acceptance, advice, or recommendations of referents, on the other hand, might interfere with or modify an individual's behavioural cognitions (Arvola et al., 2008). According to Hee, (2000), "Subjective norm is the opinions of others that are influential on an individual's decision making. If he or she believes that people who are significant to him or her approve the behavior, they are likely to perform the behavior, and vice versa". Furthermore, it is anticipated that subjective norms will have an impact on consumers' intentions to buy green products. This means that consumers' intentions to buy green products may be affected by the strong judgement made by the reference group. Sharaf et al., (2015) in his study found, for consumption of green product the influence of social forces are indispensable. In contrast, Paul et al. (2016) found that consumers' intentions to make decisions to buy green product were unaffected by subjective norm. Therefore it is an implication before the researcher to explore the nexus between perceived subjective norm and buying intention.

Perceived Consumption Effectiveness (PCE): The purchasing of green products has been connected to consumers' belief in their potential to successfully tackle environmental concerns (Samdahl and Robertson, 1989). Several academics research has identified perceived

consumption effectiveness as a significant predictor of green purchase behaviour (Dagher, G.K., Itani, O., 2014). The term "perceived consumer effectiveness" refers to people's perceptions of how much their activities can help solve environmental problems (Ellen et al. 1991). According to Jaiswal, D., & Kant, R. (2018) "the phenomenon of perceived consumption effectiveness was also interpreted in terms of behavioural control and internal locus of control, and self-efficacy in the ecological consumer research" Perceived consumption effectiveness is a measure that assesses an individual's subjective evaluation of his or her ability to contribute to the solution of societal environmental problems, and it is closely linked to self-evaluation in the context of environmental issues (Kim and Choi,2005). Given the preceding discussion, this study is sincere attempt to see the effect of perceived consumption effectiveness on buying intention.

Buying Intention (BI) : the intention of the consumer plays an important role in shaping the buying behavior, as consumers having a strong intention will more likely to perform desired buying behavior than compared with a consumer without intention. (Devonish et al., 2010) A consumer's willingness to buy green products for the benefit of the environment is referred to as buying intention towards green products, and such a consumer's willingness includes a motive to buy green products (Dagher and Itani, 2014). When confronted with a consumption circumstance, a person's intentions dictate behaviour, which is a very particular action that he or she will choose. There is evidence from a several research that the intention to buy green product and behavior related to buying green products are positively correlated. (Nguyen et al., 2016; Kumar et al., 2017) Insights gained from the earlier empirical studies stated that consumers are more likely to behave in a particular way if they have a higher intention to do so (Ajzen, 1991).

Conceptual Framework Hypothesis Development

In the view of above discussion, findings of empirical studies and under the premises of theory the below conceptual framework is proposed. The exogenous variables in this model are "Attitude toward green

products", "Perceived subjective norms", "Perceived consumption effectiveness". The endogenous variable is "Buying intention".

Figure No:-1. The Proposed Research Model
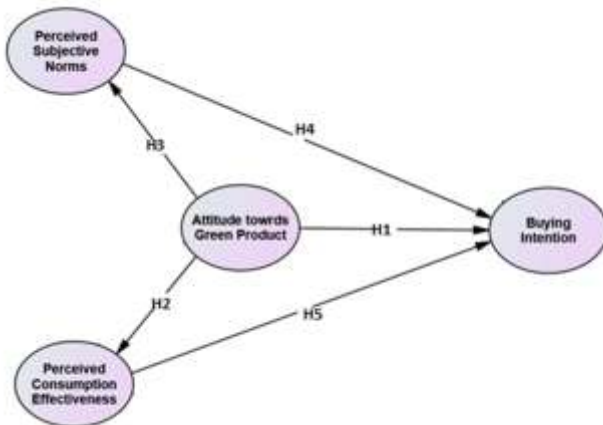
Source: Authors own analysis

Hypothesis 1. (H1) Consumer's attitude towards green product positively influences their buying intention

Hypothesis 2. (H2) Consumer's attitude towards green product positively associated with their perceived consumption effectiveness

Hypothesis 3. (H3) Consumer's attitude towards green product positively associated with their perceived subjective norms

Hypothesis 4. (H4) Perceived subjective norms have positive effect on buying intention for green product

Hypothesis 5. (H5) Perceived consumption effectiveness have positive impact on buying intention for green product

Methodology

The objective of the study is to understand the buying intention of the consumer relating to eco-friendly green products, in the form of a conceptual framework. The various constructs undertaken in the study are Attitude toward green products (AGP), perceived subjective norms (PSN), perceived consumption effectiveness (PCE) and buying intention (BI). Before development of the questionnaire 30 respondents were selected for pilot study from the city of Berhampur. During the interviewing process enough care was taken by the researcher to understand their buying motives and attitude towards green

product. A questionnaire was devised to examine customers' attitudes regarding use of green product after taking into consideration essential recommendations and suggestions from the respondents. To validate the proposed conceptual model a five point likert scale based and self-administered questionnaire was used. The data collection was carried out both online and offline surveys in important cities of Odisha to measure the response of the customer relating to four constructs (AGP,PSN, PCE and BI). To measure the construct AGP, PSN the scales were adopted from earlier studies (Maichum et al.;2016, Wu & Chen, 2014; Al Mamun, et al. 2018). For the scales representing the construct PCE is devised from the earlier study conducted by (Maichum et al. 2017). Finally to measure the BI, the scales were adapted from earlier studies (Ha & Janda, 2012; Al Mamun, et al., 2018;Chen, C. C., et.al., 2018). All of the scale items included in the questionnaire of current study is based on the adopted scale. The response of 428 valid sample were collected through both online and offline survey methods from five important cities of odisha by adopting multistage random sampling method. The questionnaire was to collect the demographic information of the respondents relating 7 attributes and his response relating to 33 scale based items. The scale based items were measured with 5-point Likert scale where the lowest point 1 represents "strongly disagree" to highest point 5 represents "strongly agree". According to Norman (2010), if the sample size is large then parametric test can give extreme robust result even if some of the assumption of normality is not fulfilled. The current study has incorporated large sample size of 428. However, to validate the conceptual framework the researcher used Smart-PLS, a non-parametric test to access the measurement model and bootstrapping method to test the hypothesised relationship among the construct.

Data Analysis and Results

Respondents Profile

A total of 428 respondents were surveyed during the study from five important cities of odisha. The respondents were categorised based on their demographic variable like place (Districts), gender, age, qualification, occupation, marital status and income.

Table No: 1 Demographic profile of the green consumer.

Variable	Categories	Frequency	Percentage
Districts	Cuttack	96	22.4
	Baleshwar	93	21.7
	Berhampur	101	23.6
	Sambalpur	43	10.0
	Bhubaneswar	95	22.2
Gender	Male	306	71.5
	Female	122	28.5
Age	Below 30	133	31.1
	30 to 45	232	54.2
	Above 45	63	14.7
Qualification	Matriculation	83	19.4
	Intermediate	179	41.8
	Postgraduate	53	12.4
	Graduate	113	26.4
Occupation	Service	104	24.3
	Business	94	22.0
	Student	112	26.2
	Homemaker	85	19.9
	Others	33	7.7
Marital Status	Single	251	58.6
	Married	177	41.4
Income	Below 25,000	136	31.8
	25,001 to 50,000	115	26.9
	50,001 to 75,000	120	28.0
	Above 75,001	57	13.3

Source: Authors' own interpretation.

The above table describing the demographic profile of the green consumers indicates that there are 71.5% of male and 28.5% of female respondent were surveyed. Maximum respondents were belongs to the age category of 30 to 45 years. However the 41.8% of the customers were educated upto intermediate. Maximum green consumers are students and their percentage is 26.2%. Further, the 58.6% of the green consumers are single. Finally maximum green consumers in this study falls in the income category of below 25000 and their percentage is 31.8%.

Structural Equation Modelling (SEM)

SEM analysis based on Partial Least square (PLS) algorithm is widely used by the researcher to across the world to validate both formative and reflective constructs. PLS-SEM is extremely useful is extremely useful when we have to predict a group of dependent variable with the help of a wide number of independent variable. (Abdi, 2007). According to Hair et al.,(2019) "The PLS-SEM method is very appealing to many researchers as it enables them to estimate complex models with many constructs, indicator variables and structural paths without imposing

distributional assumptions on the data." The PLS-SEM is a very handy in comparison with CB-SEM as it does not require complex calculation and programming. (Ringle et al., 2015).

Common Method Bias test

The problem of common method biasness is inevitable because the primary data has been collected from a similar group of respondents. Therefore the correlation matrix method was used to address the problem of 'common method bias' (Guide & Ketokivi, 2015; Yüksel, 2017). According to Bagozzi, Yi & Phillips, (1991) higher correlation among the constructs (r>0.90) indicates existence of problem of 'common method bias'. It can be shown in the below table that the coefficient of correlation among the constructs are less than 0.90. hence the data collected during the research process were not having the problem of biasness and it is appropriate for further analysis.

Table No: 2 Construct correlation matrix

	AGP	PSN	PCE	BI
AGP	1			
PSN	0.763	1		
PCE	0.728	0.687	1	
BI	0.773	0.771	0.700	1

Source: Authors' own interpretation.

Analysis of Measurement Model

Measurement models is the preliminary stage of evaluation of a model that indicates the relationship between the constructs and the various items representing the constructs. In PLS-SEM, the evaluation of the measurement model depends upon the scale of the construct whether it is formative or reflective. The ultimate objective of the model assessment is to increase the robustness of the research for that the construct must have to satisfy the validity and reliability criteria. The current study includes 21 items representing four constructs after the purification process of the constructs.

Table No: 3 Reliability and validity

Constructs	Items	Factor Loadings	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Attitude towards Green Product (AGP)	B1 B3 B4 B5 B7 B8	0.799 0.844 0.853 0.806 0.845 0.834	0.915	0.917	0.934	0.701
Perceived Subjective Norms (PSN)	C1 C2 C4 C6 C9	0.871 0.753 0.833 0.907 0.840	0.882	0.911	0.914	0.681
Perceived Consumption Effectiveness (PCE)	D2 D4 D6 D8	0.861 0.924 0.926 0.805	0.902	0.908	0.932	0.775

Constructs	Items	Factor Loadings	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Buying Intention (BI)	E2	0.802	0.905	0.909	0.926	0.677
	E3	0.844				
	E4	0.783				
	E5	0.863				
	E7	0.817				
	E8	0.827				

Source: Authors' own interpretation.

The reliability of the constructs are measured by roh_A and Cornbach's Alpha and it is clearly evident from the above table that reliability estimates are greater than 0.8. Therefore the construct reliability condition is satisfied. The construct validity can be measured in two stage as "convergent validity" and "discriminant validity". Fornell and Larcker (1981) have given three criteria for measuring the convergent validity "they are as follows (1) All measurement factor loadings must be significant and exceed 0.70, (2) Construct reliabilities must exceed 0.80,

and (3) Average Variance Extracted (AVE) by each construct must exceed the variance due to measurement error for that construct (that is, AVE should exceed 0.50)." in the present study the indicator loading of all the items are greater than 0.702. The composite reliability otherwise known as construct reliability estimated values are greater than 0.8 and finally the AVE estimated values are greater than 0.5, hence the conditions laid by Fornell and Larcker (1981) to fulfil the convergent validity is satisfied.

Table No- 4: Fornell-Larcker Estimates

Constructs	AGP	BI	PCE	PSN
AGP	0.837			
BI	0.777	0.823		
PCE	0.721	0.693	0.881	
PSN	0.769	0.792	0.676	0.825

Source: Authors' own interpretation.

The Discriminant validity shows the extent to which the scale do not correlate with those constructs, which are conceptually different. According to Gefen and Straub (2005), "discriminant validity is shown when each measurement item correlates weakly with another construct excepts for the ones to which it is theoretically associated" In the present study the Discriminant validity is satisfied with three criteria as suggested by Fornell and Larcker. In the above table the diagonal values represents the square root of AVE for each construct. The diagonal values are greater than the corresponding column values

and row values. In the above table, both the conditions laid for discriminant validity are satisfied. Therefore the discriminant validity of all the constructs in our conceptual model is accepted.

Analysis of Structured Model

At structured model the researcher evaluates relationship between the latent constructs. This stage of assessment is to be done when all the conditions for measurement model are satisfied. Initially the VIF statistics of formative constructs were measured to check existence of problem of multi collinearity.

Table No- 5: VIF Estimates

Formative constructs	VIF Values
Attitude towards Green Product (AGP)	2.944
Perceived Subjective Norms (PSN)	2.621
Perceived Consumption Effectiveness (PCE)	2.334

Source: Authors' own interpretation.

It can be noticed from the above table that the VIF estimates of all the formative constructs of Buying intention are less than 3.33 (Diamantopoulos et al., 2008). Hence there is no problem multicollinearity among the formative constructs of the conceptual model. The structured model is further analysed based on goodness of fit. (Hair, Anderson, Tatham, & Black, 1998;Bagozzi et al., 1991). Henseler et al. (2014) proposed SRMR as goodness-of-fit estimates for PLS-SEM analysis, the significance of this estimation is to avoid misspecification. The estimated SRMR value is 0.068 that is less than the ideal criteria of 0.08 (Hair et al.,2019). The NFI estimates is 0.815 is greater than 0.8, then the model is acceptable fit (Bollen,1989; Forza & Filippini,1998; Greenspoon & Saklofske 1998).

Figure No:2   PLS-SEM Output showing P-Value of Conceptual Model

The above figure shows the conceptual model obtained through PLS-SEM output by applying the consistent bootstrapping option (Hair et al.,2019). The conceptual model together represents the inner model and the outer model. The inner model of the conceptual model shows the path coefficients and P-value where as the outer model shows the outer loading of the observed variable and P-value. It is clearly evident in the inner model the relationship between the perceived consumption effectiveness and the buying intention is not significant. Except this all the relationship in the inner model and outer model are significantly related. The path coefficients provided by the PLS algorithm are equivalent to the standardized beta values provided by multiple regression. The value of these path coefficients indicates the magnitude of impact between constructs.

Table No – 6 : Structural Relationship Testing

Hypothesis Path				Path Coefficients	T Value	P Value	Null Hypothesis
H_1	AGP	→	BI	0.372	3.925	0.000***	Rejected
H_2	AGP	→	PCE	0.721	14.842	0.000***	Rejected
H_3	AGP	→	PSN	0.769	22.887	0.000***	Rejected
H_4	PSN	→	BI	0.426	5.404	0.000***	Rejected
H_5	PCE	→	BI	0.170	1.777	0.000***	Rejected

*** *is significant at the 0.001 level (2-tailed)*

Findings and Discussion

The thrust of the study was to explore the various underlying factors and their influence on the buying intention of the consumer towards eco-friendly products. After reviewing the available literature extensively and reviewing the relevant theories the present study proposed four important constructs that is "attitude towards green product", "perceived subjective norms", "perceived consumption effectiveness" and "buying intention". The relationships among these constructs were shown in the form of a conceptual framework.

1. It is clearly evident from the above table that the consumers "attitude towards green product" positively influences their "buying intention" (β = 0.372, t-Value=3.925, p<0.000).   Hence the consumer's attitude towards the green product is the prime instrumental factor that positively influences the buying intention of the consumer. Consumers who have a positive attitude about the various attributes of green products are more likely to have a positive intention to buy. The findings of the present study also supported by the earlier studies Ajzen et al.,(2011); Deng, (2016) and Kim and Chung , (2011).

2. Earlier studies have neglected the impact of attitude on consumption effeteness. In the current study we found that the "attitude towards green product" has significant impact on "perceived consumption effectiveness" (β = 0.721, t-Value=14.842, p<0.000).

The control belief that shapes the consumer perceived consumption effectiveness of the consumer is greatly influenced by the attitude of the consumer. Perceived consumption effectiveness occurs when consumers feel they have the power to act or decide on a particular consumption behaviour that is significantly shaped by the attitude of the consumer and established beliefs. In contrast the control belief to perform or not to perform certain buying behaviour towards green product is greatly influenced by the attitude of the consumer.

3. The "attitude towards green product" has significantly impact on "perceived subjective norms" ($\beta = 0.769$, t-Value=22.887, p<0.000). The consumer's social beliefs about the eco-friendly products are greatly shaped by the attitude of the consumer.

4. The "perceived subjective norms" significantly influences the "buying intention" of the consumer ($\beta = 0.426$, t-Value=5.404, p<0.000). The present research has unveiled the perceived subjective norms of the consumer have positive effect on the buying intention of the consumer relating to green product. The subjective norm is the influence of others' perspectives on an individual's decision-making. Consumers are more inclined to engage in the consumption of green products if they feel that individuals who are important to them approve of such behavior.

5. However the "perceived consumption effectiveness" is not significantly influences the "buying intention" of the consumer ($\beta = 0.170$, t-Value=1.777, p=0.076>0.05). However the consumers control beliefs shaped consumption effectiveness are not positively influencing their buying intention. The control belief of the consumer relating to buying green product not going to influence their buying intention.

Conclusion and implication

A conceptual framework was proposed in this research paper pertaining to unveil the nexus between the buying intention and its antecedents. The current study successfully explained the important constructs such as Attitude toward green products, perceived subjective norms, and perceived consumption effectiveness and their

hypothesised relationship with buying intention. It is concluded from the study that consumer's attitude toward green products is the crucial component that not only favourably influences buying intention, but also positively impacts the consumer's social beliefs and control beliefs. Hence it is an implication before the marketers to design and develop appropriate communication that focuses upon developing favourable attitude of the consumer. Social norms also have a significant impact on consumer purchasing intentions. Consumer control beliefs that determine consumption effectiveness, on the other hand, do not have a favourable impact on their purchasing intentions. The outcome of the study will help the various stake holders directly and indirectly dealing with the marketing of eco-friendly products.

Limitation and scope for future research

The current study is not free from limitation that can be minimized by the future researchers. Earlier studies suggest that the control belief is an important predictor of buying intention, but we found a non significant relationship between these. Hence more research is required in future to explore the non significant relationship between the consumer's consumption effectiveness and with its buying intention.

The second limitation is the current study did not explore the mediation effect of perceived subjective norms and perceived consumption effectiveness in relation between the attitude towards green product and buying intention.

Finally the present study considered the respondents from five important cities of Odisha and neglected rural areas, hence future researchers are encouraged to do research in larger demography and compare the buying behaviour of urban and rural consumers relating to green product.

Reference

- Abdi, H. (2007). Bonferroni and Šidák corrections for multiple comparisons. *Encyclopedia of measurement and statistics*, *3*, 103-107.

- Ajzen, I. (2015). The theory of planned behaviour is alive and well, and not ready to retire: a commentary on Sniehotta, Presseau, and Araújo-Soares. *Health psychology review*, *9*(2), 131-137.

- Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior.

- Ajzen, I., 1991. The theory of planned behavior. Organ. Behav. Hum. Dec. 50, 179–211.

- Al Mamun, A., Mohamad, M. R., Yaacob, M. R. B., & Mohiuddin, M. (2018). Intention and behavior towards green consumption among low-income households. Journal of environmental management, 227, 73-86.

- Anitha, M. P., & Vijai, C. (2021) An Empirical Study on Green Products and Green Marketing.

- Aragao, J.P.S., Holanda, C.L. de S., Castro, J. C de, Costa, M. F. da, (2020). Modelo de apoio `a decis˜ao para identificaç˜ao e priorizaç˜ao de aç˜oes socioambientais. Exacta 18 (4), 842–857. https://doi.org/10.5585/exactaep.v18n4.16035.

- Arvola, A., Vassallo, M., Dean, M., Lampila, P., Saba, A., Lähteenmäki, L., & Shepherd, R. (2008). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the Theory of Planned Behaviour. *Appetite*, *50*(2-3), 443-454.

- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative science quarterly*, 421-458.

- Bandura, A., 1977. Self-efficacy: toward a unifying theory of behavioral change. Psychol. Rev. 84, 191–215.

- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, *88*(3), 588.

- Bhatia, M., & Jain, A. (2013). Green marketing: A study of consumer perception and preferences in India. Electronic Green Journal, 1(36).

- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological methods & research*, *17*(3), 303-316.

- Chen, C. C., Chen, C. W., & Tung, Y. C. (2018). Exploring the consumer behavior of intention to purchase green products in belt and road countries: An empirical analysis. Sustainability, 10(3), 854.

- Chen, K., Deng, T., 2016. Research on the green purchase intentions from the perspective of product knowledge. Sustainability 8, 1–16.

- Dagher, G.K., Itani, O., (2014). Factors influencing green purchasing behaviour: empirical evidence from the Lebanese consumers. J. Consum. Behav. 13 (3), 188–195.

- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, *28*(12), 1615-1628.

- Devonish, D., Alleyne, P., Charles-Soverall, W., Marshall, A.Y., Pounder, P., 2010. Explaining entrepreneurial intentions in the Caribbean. Int. J. Entrepreneurial Behav. Res. 16, 149–171.

- Diamantopoulos, A., Riefler, P., & Roth, K. P. (2008). Advancing formative measurement models. Journal of Business Research, 61(12), 1203-1218.

- Durndell, A., Haag, Z., 2002. Computer self-efficacy, computer anxiety, attitudes towards the Internet and reported experience with the Internet, by gender, in an East European sample. Comput. Hum. Behav. 18, 521–535.

- Ellen, P.S., Wiener, J.L., Cobb-Walgren, C., (1991). The role of perceived consumer effectiveness in motivating environmentally conscious behaviors. J. Public Policy Mark. 102–117.

- Fishbein, M., Ajzen, I., (1975). Belief, Attitude, Intention, and Behavior: an Introduction to Theory and Research. Addison-Wesley Publishing Cmpany.

- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

- Forza, C., & Filippini, R. (1998). TQM impact on quality conformance and customer satisfaction: a causal model. *International journal of production economics*, *55*(1), 1-20.

- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, *16*(1), 5.

- Greenspoon, P. J., & Saklofske, D. H. (1998). Confirmatory factor analysis of the multidimensional students' life satisfaction scale. *Personality and Individual Differences*, *25*(5), 965-971.

- Guide Jr, V. D. R., & Ketokivi, M. (2015). Notes from the Editors: Redefining some methodological criteria for the journal. Journal of Operations Management, 37(1), v-viii

- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, *31*(1), 2-24.

- Hee, S.P., 2000. Relationships among attitudes and subjective norm: testing the theory of reasoned action across cultures. Commun. Stud. 51, 162–175.

- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.

- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. Journal of Retailing and Consumer Services, 41, 60-69.

- Joshi, Y., Rahman, Z., 2015. Factors affecting green purchase behaviour and future research directions. Int. Strateg. Manage. Rev. 3, 128–143.

- Kim, H.Y., Chung, J.E., 2011. Consumer purchase intention for organic personal care products. J. Consum. Market. 28, 40–47

- Kim, Y., & Choi, S. M. (2005). Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. *ACR North American Advances*.

- Kripa, N. S., & Vinod, L. (2021). A Study on Consumer Behavior towards Green Products and Barriers in Consumer Purchase Decision. Annals of the Romanian Society for Cell Biology, 25(6), 9588-9598.

- Kumar, B., K. Manrai, A., A. Manrai, L., 2017. Purchasing behaviour for environmentally sustainable products: a conceptual framework and empirical study. J. Retail. Consum. Serv. 34, 1–9.

- Maichum, K., Parichatnon, S., & Peng, K. C. (2017). Factors affecting on purchase intention towards green products: A case study of young consumers in Thailand. Young, 16, 17.

- Midilli, f., & tolunay, a. K. (2021). An exploratory study on turkish consumers'attitude and purchase intention towards green products. Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 23(1), 249-270.

- Ng, M., Law, M., 2015. Encouraging green purchase behaviours of Hong Kong consumers. Asian J. Bus. Res. 5, 1–17.

- Nguyen, T.N., Lobo, A., Greenland, S., 2016. Pro-environmental purchase behaviour: the role of consumers' biospheric values. J. Retail. Consum. Serv. 33, 98–108.

- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in health sciences education*, *15*(5), 625-632.

- Parkinson, J., Russell-Bennett, R., Previte, J., (2018). Challenging the planned behavior approach in social marketing: emotion and experience matter. Eur. J. Market. 52 (3/ 4), 837–865. https://doi.org/ 10.1108/EJM-05-2016-0309.

- Paul, J., Modi, A., Patel, J., (2016). Predicting green product consumption using theory of planned behavior and reasoned action. J. Retail. Consum. Serv. 29, 123–134.

- Persada, S.F. (2016) Pro Environmental Planned Behavior Model to Explore the Citizens' Participation Intention in Environmental Impact Assessment: An Evidence Case in Indonesia. Ph.D. Thesis, Industrial Management Department, National Taiwan University of Science and Technology, Taipei, Taiwan.

- Policarpo, M.C., Aguiar, E.C., (2020). How self-expressive benefits relate to buying a hybrid car as a green product. J. Clean. Prod. 252, 119859. https://doi.org/ 10.1016/j.jclepro.2019.119859.

- Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. *Bido, D., da Silva, D., & Ringle, C.(2014). Structural Equation Modeling with the Smartpls. Brazilian Journal Of Marketing*, *13*(2).

- Riskos, K., Dekoulou, P., Mylonas, N., & Tsourvakas, G. (2021). Ecolabels and the Attitude–Behavior Relationship towards Green Product Purchase: A Multiple Mediation Model. Sustainability 2021, 13, 6867.

- Samdahl, D. M., & Robertson, R. (1989). Social determinants of environmental concern: Specification and test of the model. *Environment and behavior*, *21*(1), 57-81.

- Sharaf, M.A., Isa, F.M., Al-Qasa, K., 2015. Factors affecting young Malaysians' intention to puchase green products. Merit Res. J. Bus. Manag. 3, 29–33.

- Sharma, N., Dayal, R., 2016. Drivers of green purchase intentions: green self-efficacy and perceived consumer effectiveness. Global J. Enterprise Inf. Syst. 8, 27–32.

- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. Journal of consumer research, 15(3), 325-343.

- Swadia, B. U.(2021) A study on consumers' behaviourtowards green products. Journal of the Maharaja Sayajirao University of Baroda, 55(2),24-28.

- Vermeir, I., Verbeke, W., 2006. Sustainable food consumption: exploring the consumer "attitude–behavioral intention" gap. J. Agric. Environ. Ethics 19, 169–194.

- Wang, J., Wu, L., (2016). The impact of emotions on the intention of sustainable consumption choices: evidence from a big city in an emerging country. J. Clean. Prod. 126, 325–336. https://doi.org/ 10.1016/ j.jclepro.2016.03.119.

- Yan, H., & Chai, H. (2021). Consumers' Intentions towards Green Hotels in China: An Empirical Study Based on Extended Norm Activation Model. Sustainability, 13(4), 2165.

- Yüksel, A. (2017). A critique of "Response Bias" in the tourism, travel and hospitality research. Tourism Management, 59, 376-384.

- Zhang, Q., Zhao, Q., Zhao, X., Tang, L., (2020). On the introduction of green product to a market with environmentally conscious consumers. Comput. Ind. Eng.139, 106190. https://doi.org/ 10.1016/j.cie.2019.106190.