An Empirical Investigation of Factors Affecting Consumer Buying Behaviour for Green Personal Care Products in India

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Abstract

The impetus of this paper is to conduct an empirical investigation of factors affecting consumer buying behaviour for green personal care products in India. In this paper an empirical investigation is being carried out to test the reliability and validity of the proposed framework. In the beginning a brief introduction of the problem statement that is "Attitude- Behavioural" Gap has been explained. Further the methodology adopted for the formulation of the proposed framework with explanation of each initiative of (GBB) Green buying behaviour and the Hypothesis formulation has been described. After the hypothesis formulation, data analysis of the proposed framework is being done with the help of techniques like reliability analysis, factor analysis, bivariate correlation and multiple linear regressions. Though all the 7 initiatives were found to have positive and significant relationship with GBB, Green Environmental Attitude (GEA) emerged as the strongest predictor followed by Green Brand Preference (GBP) and Green Functional Attribute (GFA). The framework showed high level of reliability. The model was found to be significant and together the 7 initiatives explained 70% of the variance. The study is pioneering in sense that all the factors identified have not been tested before together in any of the previous identified frameworks. This makes the framework unique and dynamic in its approach. Secondly a new and different working relationship among the initiatives and GBB was being identified like mostly in literature Intension to Pay has been studied as a mediating variable but in our study researchers have explored its relationship with GBB as an Independent Variable. In conclusion, this paper informs about main predictors of GBB and how they work together too positively or negatively influence GBB. These initiatives would help policy makers and managers in formulating and implementing marketing strategies to encourage GBB. It will also help them to understand the importance and relevance of each identified initiative.

Keywords*: Attitude-Behavioural Gap, Green Buying Behaviour (GBB), Marketing Strategies, Green Environmental Attitude (GEA), Green Brand Preference (GBP), Green Functional Attribute (GFA).*

Introduction

After globalization the environmental and social consequences of unquestioning pursuit of economic growth had become crystal clear. With globalization consumer preferences of goods and services had tremendously increased along with their increased purchasing power, which led to over consumption and utilization of natural resources leading to extensive global warming and environmental degradation. Consumption of goods and services by private households alone accounts for 40% of environmental degeneration. Awakened by the magnanimity and the seriousness

of the events consumers were now carefully altering their buying behaviour. Sustainability once a long term goal or a vision of future had become a priority. Consumers were forced to find more equitable ways to produce, consume and live. They had become more concerned and aware the consequences of their choices regarding consumption of goods and services and their after effects. This shift or change in the attitude and new concern towards the environment was translated by high demand in environmentally oriented products by the consumers. According to (de Medeiros and Ribeiro, 2017) "Green Products, also named environmentally correct or environmentally sustainable products are those capable of adding long term benefits, reduce client stress and relieve them from their environmental responsibility, without however diminishing products and satisfying products". (Kang and choi, 2016) described "sustainable products, in this study, are broadly classified as those that embrace positive social, environmental and ethical attributes (Luths et al., 2010)". "Products which are produced without non-toxic chemicals or are recyclable, reusable, bio-degradable or having eco-friendly packaging and with low detrimental environmental impact at all stages of its life-cycle with the long term goal of preservation of natural environment are termed as green or environment friendly products" (OECD, 2009). In a many studies sustainable products have been defined as "products that have fewer negative effects on the environment during the whole lifecycle: production, use and disposal, compared to other products" (OECD, 2009). According to (Pettie and crane, 2010) "Green Products attributes generally fall into two categories 1) are those relating to the social and environmental impacts of the tangible product itself. 2) Relate to the processes by which the product is created and the attributes of the company that produces it. (The Marketing Book, pp 747). "This created new environmental ethics, which increased individuals 'awareness and significantly changed their consumption behaviour (Jang et al., 2011)". Companies responded by introducing a variety of green initiatives such as "green products and service design" (Chan et al., 2013; Danjelico and Pujari, 2010), "green supply chain management" (Wang and Chan, 2013; Tseng et al. 2013a), and "innovation practices" (Lin et al., 2013; Chen et al., 2006; Tseng et al., 2013b). "Lack of information to the consumers about green products often results in an attitude-behaviourgap between their environmental concern and actual buying behaviour thus hindering the market share for green products (Ohtomo and Hirose, 2007)". "Consumer research recognizes consumers' perception about green products, its price and quality (functional value), their urge to seek knowledge (Epistemic value), image concern, peer opinion (Social value), influence of promotional activities and subsidies (Conditional value), desire to exhibit protective role towards environment (Environmental value) may have strong influence and prognosticate sustainable consumption behaviour" (Sharma and Bagoria, 2012; Laroche et al., 2001). "Despite extensive research on consumers' environmental actions, attitudes and apprehension in the context of Europe and USA, such studies are remarkably absent in the context of the developing economies of the East" (Arkesteijn and Oerlemans, 2005; Saxena and Khandelwal, 2010).Many research studies were found studying, especially on "organic (sustainable) food purchase (see Gracia and Magistris, 2007; Vermeir and Verbeke, 2008; de Maya et al., 2011; Grankvist and Biel, 2007)". However, "the analyses of eco-friendly cosmetic, personal care or appliance products are rather scarce (Kim and Chung, 2011; Cervellon and Wernerfelt, 2012)". "Considering the location of the research of green products, the studies covering developing countries are growing in recent decade" (Tan, 2011; Lin and Huang, 2012; Chairy, 2012;Wu and Chen, 2014). With reference to these studies a theoretical framework

is built to examine the relationship and influence of several factors identified like Brand trust, self-Image, Social value, environmental knowledge, environmental concern, conditional value and their influences on buying behaviour of consumers' for products with green orientation.

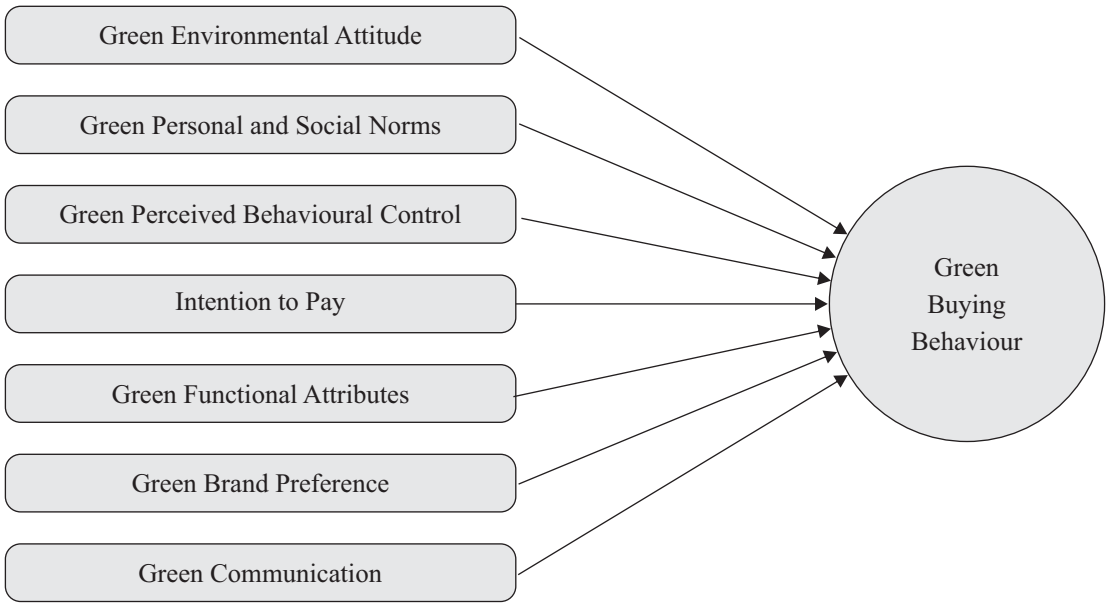
Development of a framework

Over the years there have been numerous efforts to minimize the attitudinal- behavioural gap. Researchers have found that a lot of studies has undergone to study as to what factors influence a green consumers buying behaviour, 23 frameworks have been identified in the literature which studies the gap. The major problem is that these identified elements cannot be used or adopted as it is, as there is lack of a proper system structure, Some of the expressed components and indicators in models of factors influencing Green purchase intentions do not fit with local needs and characteristics of a particular county and those factors cannot be evaluated in other countries. Frameworks identified are Static, not dynamic enough to adopt cultural and environmental factors and variables, in studies for identifying the factors influencing the green buying behaviour. The studies on Green buying behaviour of consumers were scattered. (Hessam, Yousefi and Goudarzi, 2013). (Lin and Huang, 2012; Sinnappan and Abdurrahman, 2011; Kaufmann et al; 2011). A Comparison table was prepared to show a matrix of numbers which represent the order of each element in the framework. The comparison was made on the basis of the elements/ constructs/ factors listed in each framework. Identifying and establishing a relationship among them has resulted in a new framework which would provide routes for the organization to bridge the gap. The comparative analysis revealed similarities between different frameworks under the study. Hence, the frequency of occurrence of each element listed under the framework was calculated. It was found that certain elements had a relative frequency of 0.2 or more than 20% or more frameworks are stressing the importance of that element. Such elements identified from comparative studies of identified frameworks were considered. The elements which were considered for the study are Environmental Attitude, Environmental Knowledge, Environmental Concern, Environmental Awareness, Perceived Seriousness of Environment, Man-Nature Orientation, Social Value, Self-Image, Emotional Value, Reference Groups, Conditional Value, Intension to Pay, Functional Attributes, Price, Quality, Performance, Design, Brand Preference, Brand Trust, Brand Satisfaction, Advertisements, and Emotional Value. All these elements were carefully clubbed together under these heading namely Green Attitude, Green Personal and Social Norms, Green Perceived Behavioural Control, Green Intention to Pay, Green Functional Attribute, Green Brand Preference, Green Communication. The clubbing was done on the basis similarity of the elements.

Table 1 : Dependent Variable, Independent Variables and their Antecedents

Dependent Variable	Independent Variables	Antecedents
Green Buying Behavior	Green Environmental Attitude	Environmental Attitude Environmental Knowledge Environmental Concern Environmental Awareness Perceived Seriousness of Environment Man-Nature Orientation,
	Green Social and Personal Norms	Social Value, Self-Image, Emotional Value, Reference Groups
	Green Perceived Behavioral	Conditional Value
	Control	Intention to pay
	Green Intention to pay Green Functional Attribute	Price, Quality, Performance, Design and functional Attribute
	Green Brand Preference	Brand satisfaction Brand Trust
	Green Communication	Advertisements

Fig 1: Framework of Factors Influencing the Green Buying Behavior of Consumers



Research Methodology

The systematic approach of empirical research proposed by Flynn et al. (1990) was followed step by step to conduct the empirical study. The first step in the systematic approach is theory verification. Accordingly, the exploratory study was aimed at conducting an empirical investigation of green buying behaviour in Indian industry with respect to the proposed framework. With this objective a cross- sectional survey was conducted across the nation targeting the urban

population of the country in I tier and II tier cities of the country.

Hypothesis Formulation

Hypothesis testing begins with a postulation, called hypothesis, which is made about a population parameter. Sample data is collected, Sample statistics is calculated, and then this information is used to infer the likelihood that the hypothesized population parameter is accepted.

Green Environmental Attitude

(Allport, 1935) discusses attitude as a: "A mental and neural state of readiness, which exerts a directing, influence upon the individual's response to all objects and situations with which it is related". "Attitudes are conventional assessment of objects, people's perception or topics represented by a clear inclination towards one direction" (Ajzen, 2001). It can be simply concluded that, attitude is a reflection of consumer's choices (Blackwell et al., 2006) and their buying behaviour is mostly dependent on their green attitudes (Irland, 1993). According to (Chyong et al., 2006) attitudes are thought to be one of the most accordant factors while explaining consumers' intention to pay for environmentally sustainable products. This consortium between environmental attitude and the relative behaviour may differ, depending on the context of the study. Green Attitude in this study will be studied in context of consumer's attitude towards GBB that is a person's response towards environmental issues. Across the literature mixed empirical evidence can be found supporting a positive (Kim and Chung, 2011; Yahaya, Nizam and Aman, 2011;Sinnappan and Rahman, 2011) in different product categories like organic foods, consumer durables etc. as well as negative or no influence at all like (Abdul Wahid and Abustan, 2009; Tan, 2010) association between environmental attitude and behaviour. "Attitude is thought to be most crucial predictor explaining consumers' intension towards green oriented products" (Laroche et. al., 2001). Studies show that even if consumers have little awareness about the environment they still manifest strong emotional bonding towards the environment. "Attitude is an important predictor of behaviour" (Mostafa, 2007). Hence, it becomes necessary and crucial to study it in Indian context and see what influence it has on green buying behaviour.

- H1: Green Environmental Attitude has a direct and positive relationship with Green Buying Behavior.

Green Personal and Social Norms

"Conceptualized in TPB, relate to Social pressure of complying with certain behaviour" (Ajzen, 1991). "People use social norms as guidelines for appropriate behaviours to decide not only what is morally right or wrong but also whether it is easy or beneficial to act in such a way" (Bamberg ad Moser, 2007). "By incorporating social norms into consistent personal values system, personal norms are established" (Jansson et al., 2010). ***Personal Norms:*** are defined as "feelings of strong moral obligations to engage in altruistic or green behaviour" (Ajzen, 1991). "Personal norms have a positive effect and behaviour, which is empirically, confirmed in the domains of green mobility" (Jansson et at., 2010) and "energy efficiency products" (Ha and Janda, 2010). "Strong Personal norms even increase the probability of changing consumption patterns overtime to environmentally friendly behaviour" (Thogerson and Olander, 2006).

- H2: Green Personal and Social norms have a direct and positive relationship with Green Buying Behavior.

Green Perceived Behavioural Control

"is the perceived control one has over one's actions. It refers to the capacity of an individual to perform a given behaviour (Ajzen, 1988)". "In most of the studies it was seen that there existed a significant and positive impact on green buying behaviour (Ma, Littrell and Niehm, 2012; Wang et al., 2014)". There was however few studies stating that there exists no relation between the two (Arvola et al., 2008). It can be said although there is some evidence that PBC positively influences green buying behaviour, yet further empirical investigation is required. Hence,

- H3: Green Perceived Behavioral Control has a direct and positive relationship with Green buying Behavior.

Green Intention to Pay

"It is conceptualized as the probability and willingness of a person to give preferences to products having eco – friendly features over the other traditional products in their purchase considerations (Ajzen, 1991)".J. Walter Thompson, an advertising agency, conducted a survey where 82% of the respondents agreed to pay minimum 5% to 20% more for products and services that were green oriented (D'Sauza, 2004). A study conducted in Malaysia on intention to pay for organic vegetables revealed that price, to a certain extent did affect the consumers' attitude (Rezai, Mohamed and Shamsudin, 2011). "However, Tan and Lau (2010) cited the finding from the research of (Chyong, Hasan and Buncha, 2006) stating that a consumer might be willing to pay more for a green product if they were environmentally conscious and responsible. In a study of American consumers through a focus group interview (Progressive Grocer, 1990) stated that consumers were only willing to pay more for green products only if they thought the product was likable and product was of similar or better quality from their counter parts in the similar product category. "In a study on Australian consumers, (Suchard and Michael,1991) found that 61.5% of the respondents would pay more for environmental friendly products that cost 15% and 20% higher while 22.2% were unsure if they would pay more for green products". "There are literatures suggest that strong environmental motivations may result in a greater willingness to pay a price premium of up to 10% (D'Souza, Taghian and Lamb, 2006)".

- H4: Green Intention to Pay has a direct and positive relationship with Green buying Behavior.

Green Functional Attribute

"Consumers are willing to integrate sustainable actions into their everyday shopping behaviour and place high importance on ecological attributes, for instance when they buy dishwashers (Richter, 2010) or food (Gadema and Oglethrope, 2011)". "Price is one the major attributes on which purchasing decisions are based (Mai and Hoffmann, 2012)"."Consumers state high prices as barriers to green consumption (Gleim et al., 2013; Paul and Rana, 2012; Vega- Zamora et al., 2014)". "Researchers found that product attributes positively influenced purchase of green products (e.g., Chen et al., 2012; Young et al., 2010)". "Consumers preferred functional attributes of the product (that fulfil personal needs and desires) over its ethical characteristics (Chen and Lobo, 2012; Tsakiridou et al., 2008)". "Taste, quality and healthiness of product have been reported as important attributes for consumers who purchase green food products (Cerjak et al., 2010)". In most of the studies it was reported that the functional attributes, product quality and design had prominent influence while making a purchase of green products(Mondelaers et al., 2009; Smith and Paladino, 2010; Tsakiridou et al., 2008), only in one study (Chan and Wong, 2012) it was reported

that product attributes had no significant influence on consumers buying decision. “Perceived high quality of green products has a positive influence (Aertsens et al., 2011; Mondelaers et al., 2009)”.Hence, one can come to a conclusion that functional attributes along with green characteristics combined with high product quality and design can positively influence consumers' green buying behaviour.

- H5: Green Functional Attribute has a direct and positive relationship with Green buying Behavior.

Green Brand Preference

“The green commitments and concern of the firm will add or subtract value to the products and services offered by the brand, which results in the green brand preference. In other words the consumer's perception of the brand will affect their choices (Gunasti and Ross, 2010)”. When green products were introduced three decades ago they were considered to be of inferior quality and did not fulfil consumer's needs and wants and did not perform according to consumers expectations. Many companies also made false claims of their products and services were green. This early and bad experience with green products created a buzz in the market which was not clarified later on. Therefore, consumers are willing to trust only well-established brands and will choose or make purchasing decisions of green products based on their previous experiences.

- H6: Green Brand Preference has a direct and positive relationship with Green buying Behavior.

Green Communication

“The theory of reasoned Action (Ajzen and Fishbein, 1980) suggests that marketers can influence consumer's attitude and intentions by changing their evaluations through adding new beliefs and targeting normative beliefs”. Branding plays a crucial role in altering of attitudes. “Brands are effective because they have an effect on the affective domain: rational reasons are translated into emotional preferences (Travis, 2000)”. Thus, brands possess power to change a consumer's perception about a brand and can make them shift to more sustainable and greener consumption patterns. For e.g., visceral marketing can change a non- resistant green consumers perception, who is ready to pay a higher price for green products to more sustainable organic consumption “many shades of green” (Ottman, 1998). Hence, it can be comprehended that with right marketing and branding efforts consumers who are willing to pay more for green products but are hesitant, there perception can be altered and they can be motivated to inculcate more greener and sustainable consumption patterns (Ottman, 1998).

- H7: Green Communication has a direct and positive relationship with Green buying Behavior.

Design of Questionnaire and Data Collection Method

The questionnaire was constructed into 3 sections that is A, B and C. Each section had a specific purpose like section A designed was to collect the demographics of the consumers which would help in building the profile of the respondents. Section B was a structured questionnaire having questions related to Brand Awareness, Brand Recall and Recognition. This part of the questionnaire was constructed to see if respondents were able to recall and recognize green brands, what personal grooming products they were using most and if they knew about few companies working in the area of green marketing. The third section that is Section C was developed using five –point likert scale(structured questionnaire) for evaluating the usefulness and importance of each item/element

under the 7 initiatives identified. The respondents were requested to fill questionnaire and assign a value ranging from 1 to 5 depending on the importance of each element under the identified initiatives according to their level of understanding of the subject area as to achieve maximum potential for that particular initiative.

Structured questionnaire was used to collect the data. Data was collected using convenience sampling. The sector chosen was personal grooming sector. A mixed method approach was used where researchers themselves went to various cities and collected the data and questionnaires were also sent through e-mails and some respondents were also contacted and Questionnaire was filled via telephonic conversation. The survey was designed with an amalgamation of identified elements under the 7 initiatives to study green buying behaviour of consumers after the necessary rectification done as identified by the researchers. The questionnaire was designed to check the level of influence each element had in explaining the concerned initiative. In addition to this, general questions regarding Brand recognition and recall were also asked as well as the demographics of the consumer.

Structured Questionnaire was administered for the data collection method. In total 650 questionnaires were sent using a mixed method approach that is through e-mails, telephone and researchers themselves also went to various shopping points to get the questionnaire filled. A scale was designed using five-point likert scales for each element, where 1 represented the lowest score which meant least important and 5 represented as highest score meaning most important.

Table 2: A typical example is shown below:

Green Environmental Attitude		**Lowest ⟶ highest**				
1	We are approaching the limit to the number of people the earth can support.	1	2	3	4	5

According to (Hair, et al., 2006) a minimum of five subjects per variable is must or a sample of 100 is acceptable to achieve good results. In the present study the sample size is 330. As it is greater than the minimum requirement of 300 (30 variables*10), hence is adequate for any statistical analysis. From the 650 Questionnaires sent around 400 responses were received back. Some responses were found to be invalid or incomplete. After the cleaning of the data was done a total of 330 Questionnaires were selected for the study which was more than enough giving a total response rate of 100%.

Data analysis and Results

The data obtained from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS) software. The results of statistical analysis done for the proposed framework are presented here.

Reliability Analysis

"It measures the overall consistency of the items that are used to define a scale". It focuses on the problem that whether the questionnaire administered will be able to produce the same results, under same settings disregarding of who administers it to a respondent. Reliability analysis or scale reliability is checked for each pillar or the construct of the survey instrument. Scale reliability is measured on the basis of correlations between the elements that together make up the scale and the variances of the items. Various kinds of

reliability coefficients, with values ranging between 0.00 (not reliable) and 1.00 (highly reliable), are generally used to signify the reliability of the scale. In this study internal consistency method is being administered which is considered to be most effective and requires only one administration and is used widely (Suresh Chandar et al., 2001). It is the degree to which elements in the set are similar and how well they explain the initiative in question. Internal consistency can be estimated using reliability coefficient, such as Cronbach's alpha "The minimum generally acceptable value of Cronbach alpha is 0.70. The Cronbach's alpha of constructs discussed in this study is above 0.70".(Flynn et al., 1990; Nunnallly, 1978).

It is recommended by some of the most prominent authors to measure the Inter- item correlations before measuring the internal consistency of the measures (Cronbach's alpha). Therefore an Inter-item correlation matrix was constructed. If the correlation (inter-item) was to be less than 0.2 it simply signified that the items or elements chosen for the study were inappropriately selected (Nunnaly, 1988). In our study inter-item correlation for all the constructs was found to be adequate ranging from .441 to .817. This fits well in the requirement criteria. For all the initiatives, the alpha value was found to appropriate and high and so all the items/elements within each initiative were found fit for statistical analysis. Although, removal of few items from the scales would have improved some of the alpha values, but no items were removed as they were fulfilling the criterion of exceeding 0.7 The range of alpha value varied from .732 being least and .923 being the highest. The results of the reliability analysis are shown below:

Table 3: Reliability Analysis of Green Buying Behaviour Constructs

S. No.	Construct	No of Items	Cronbach's Alpha	Standardized item alpha
1	Green Attitude	4	.732	.738
2	Green Personal &Social Norms	4	.923	.925
3	Green Perceived Behavioral Control	3	.806	.807
4	Green Intension to Pay	3	.789	.789
5	Green Functional Attribute	3	.807	.804
6	Green Brand Preference	2	.816	.817
7	Green Communication	2	.767	.777
8.	Green Buying Behavior	3	.804	.789

Note: None of the items are deleted at this stage as the alpha value is high for all constructs.

Validity Analysis

It measures the item or scale measures what it has been designed to measure and nothing else.

Face validity

According to (Kaplan and Sacuzzo 1993) "a measure is said to have face validity if the elements are associated to the perceived purpose of the measure" (Sharma and Kodali, 2011). Researchers relied heavily on their intuition and subject knowledge throughout the process. This study carried out a thorough review of literature and detailed domain analysis of studies factors affecting green buying behaviour in general

assured that 7 initiatives identified had face validity. It was further assured by the expert inputs.

Construct Validity

It measures if a scale is appropriate operational definitions of an out- come i.e. green buying behaviour. Factor analysis performed on a single scale will show whether all the items (elements) within a summated scale will load a single or same initiative/Pillar/construct or it measures more than one construct.

To confirm and examine the details of an assumed factor structure principal component analysis method with varimax rotation was carried out on all the identified variables.

The Kaiser- Meyer- Olkin (KMO) measure verified the sample adequacy for analysis, KMO= .658, which is above the threshold limit of 0.6 ((Field, 2009), (Hair, et al., 2006)). Bartlett's test of sphericity x2 3324.322, p <.001, is significant. It indicates that correlation among the items/ variables are sufficiently large enough to go for factor analysis. The anti-image correlation matrix also revealed that measure of sampling adequacy (MSA) of each individual item is well above the threshold value of 0.5, which substantiates the application of factor analysis on the data. The mean value of communalities was also found to be more than 0.7, which is regarded to be a good measure of adequacy of sample (MacCallum, et al., 2001).

Running Factor analysis suggested 7 factors or constructs are adequate enough to represent the data. These 7 factors have Eigen value above the Kaiser's criterion of 1 and together explained 70% of the variance. Factor Analysis was also performed on GBB (dependent variable) together with other independent variables simply to check whether it was breaking or not. These 8 factors together explained 75% of the variance having Eigen value above the Kaiser's Criterion of 1. The results can be seen in the table below:

Table 4 : Results of Factor Analysis

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.389	14.734	14.734	3.389	14.734	14.734
2	2.922	12.706	27.440	2.922	12.706	27.440
3	2.234	9.714	37.154	2.234	9.714	37.154
4	2.117	9.205	46.359	2.117	9.205	46.359
5	1.849	8.037	54.396	1.849	8.037	54.396
6	1.768	7.688	62.084	1.768	7.688	62.084
7	1.690	7.347	69.430	1.690	7.347	69.430
8	1.260	5.480	74.911	1.260	5.480	74.911

Content Validity

"Content validity of an instrument refers to the degree to which it provides a fair representation of the conceptual domain that it is designed to cover" (Hair et al., 2006). "If the items depicting the various constructs of an instrument are verified by a comprehensive review of the relevant literature, content validity can be ensured" (Bohrnstedt, 1983). It is also a measure of how correct the items seem to be in the expert's opinion (Saraph et al., 1989; Flynn et al., 1990; Talib et al., 2013).

In the present study, the most of elements used are taken from established scales (after extensive literature review) whose face and content validity have already been checked. Hence, the 7 initiatives identified for measuring green buying behaviour had strong face and content validity. Further it was ensured through a detailed assessment by the experts and extensive literature review by the authors. Some elements derived from different frameworks and were modified accordingly prior to the final analysis. The survey was administered to academicians and business professionals.

To check the content validity, the firstdraft of the questionnaire it was referred and checked with experts in MNIT Jaipur, after that the questionnairegradually progressed in its final stage. The full and final version was sent to the respondents for the survey.

Criterion-related Validity

Traditionally, criteria- related validity is measured by assessing the strength of relationships among the identified initiatives with the measure of Green buying behaviour (Saraph et al. 1989). This helps in investigating the inter-relationship between the (Predictor) that is the 7 initiatives and their respective scores with (the criterion), outcome i.e. the green buying behaviour. Correlation is considered to be most effective tool for measuring the criteria- related validity.

The correlation among green buying behaviour and various factors/ constructs is shown in table no 5 and it can be seen that it is quite high and significant for all of the constructs. The strongest relationship is with Green Environmental Attitude (.881*) followed by Green Functional Attribute (.673*) and Green Brand Preference (.515*).All correlation were found to be higher than 0.30. The strongest coefficient of correlation in the study is 0.8 which is below 0.90, suggesting that the data does not have a multicollinearity problem (Hair et al., 1998). Hence, the data in the research has no co linearity and multicollinearity problem.

Table 5: Results of Bivariate Correlation Analysis

Dependent Variable	Independent Variables	Correlation Values
Green Buying Behavior	Green Environmental Attitude	.881*
	Green Social and Personal Norms	.500*
	Green Perceived Behavioral Control	.308*
	Green Intension to pay	.285*
	Green Functional Attribute	.650*
	Green Brand Preference	.673*
	Green Communication	.515*

** Correlation is significant at the 0.01 level (2- tailed

Regression Analysis

It is a statistical technique for assessing the relationship among the variables. A mathematical equation is being formulated establishing the association among the dependent variable that is GBB (Criterion) and one or more independent variable (Predictors). It is also helps in determining the overall fit of the model (variance) and the influence or contribution of each identified initiative to the total variance explained. The goodness of constructed multiple regression equation can be checked by examining the value of (R^2) which always lies between 0 to 1 and is popularly known as the coefficient of determination. Nearer to 1 it is better is it value. The results of Regression analysis are shown below.

Table 6: Results of Regression Analysis (Model Summary).

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.917[a]	.842	.838	.17709	.842	244.647	7

a. Dependent Variable: BB
b. Predictors: (Constant), COM1, ITP2, PBC, AA1, PSN1, BP11, A1

Table 7: Coefficients Table of Regression Analysis

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations
		B	Std. Error	Beta			Zero-order
1	(Constant)	-.809	.165		-4.893	.000	
	A1	.622	.035	.609	18.025	.000	.881
	PSN1	.107	.021	.129	5.073	.000	.500
	PBC	.004	.021	.005	.210	.834	.308
	ITP2	.066	.024	.063	2.714	.007	.285
	AA1	.131	.031	.123	4.192	.000	.650
	BP11	.125	.031	.125	4.100	.000	.673
	COM1	.114	.027	.110	4.269	.000	.515

From the results above it can be seen that the value of R^2 was .842, demonstrating that 84.2% Green Buying Behaviour can be explained by the above 7 independent variables. The proposed model was acceptable as the F- statistics was found to be significant at 1 percent level ($p<0.01$). This states that the overall model was statistically significant and there is a positive relationship between Green buying behaviour and the 7 identified independent variables. The following equation was been formulated.

GBB= .622*A1+ .107* PSN1+ .004* PBC+ .006* ITP2+ .131*AA1+ .125* BP11 + .114* COM1- .809

Discussion

This section provides a meticulous discussion of the results achieved in regard with the hypotheses associated with various factors identified in the literature affecting GBB on Table No 8 summarises the results of hypothesis tests.

The reliability analysis established internal consistency of the constructs as the Cronbach α value for all construct was above the threshold value of 0.7. Hence all items within the constructs were considered for further analysis. In Factor Analysis none of our factors were broken. Hence, Factor Analysis on each construct depicted unidimesionality of construct, thus proving the construct validity of each construct. Finally seven factors were extracted explaining 70% of the variance. Significant Pearson's correlation coefficients (r) between green buying behaviour and 7 constructs established the criterion validity. The maximum value of Pearson's correlation coefficient (0.881*) between dependent and independent variable suggest no problem of multicollinearity in data as it was less then threshold value of 0.9.

Table 8: Results of the Hypotheses Testing

S. No	Hypothesis Formulated	Result (Accepted/ Rejected)
1	Green Environmental Attitude has a direct and positive relationship with Green Buying Behavior.	Accepted (Strong Correlation)
2	Green Personal and Social norms have a direct and positive relationship with Green Buying Behavior.	Accepted (Moderate Correlation)
3	Green Perceived Behavioral Control has a direct and positive relationship with Green buying Behavior.	Accepted (Weak Correlation)
4	Green Intention to Pay has a direct and positive relationship with Green buying Behavior.	Accepted (weak Correlation)
5	Green Functional Attribute has a direct and positive relationship with Green buying Behavior.	Accepted (Strong Correlation)
6	Green Brand Preference has a direct and positive relationship with Green buying Behavior.	Accepted (Strong correlation)
7	Green Communication has a direct and positive relationship with Green buying Behavior.	Accepted (Moderate Correlation)

These results are significant as they empirically validate the premise in the literature that these 7 factors affect GBB positively(Ahlstrom, 2004; Malmbrandt & Ahlstrom, 2013; Hadid et al., 2016) .The results indicate that positive impact is driven by the factors Green environmental attitude, Green Personal and Social norms, Green Personal and Social Norms, Green Perceived Behavioural Control, Green Intention to Pay, Green Functional Attribute, Green Brand Preference and Green Communication on Green Buying Behaviour.

Green Environmental Behaviour was found to have the strongest influence/ predictor of GBB. Thisresult is also supported by previous studies(Sinnappan and Rahman, 2011; Kim and Chung, 2011; Yahaya, Nizam and Aman, 2011). After GEB, Green Brand Preference and Green Functional Attribute were found to have strongest influence. Previously also in literature it was seen that consumers were willing to pay for brands which were trustworthy and were giving them value for money(Gunasti and Ross,

2010),(Mondelaers et al., 2009; Smith and Paladino, 2010; Tsakiridou et al., 2008). This was followed by Green Communication (moderately influencing).In these studies also it was found to have a lot of significance on Green buying behaviour. (Good, 2006; Holbert et al., 2003). Researchers believe that if some campaign appraisals are being done to provide knowledge regarding green products and their need and functionality consumers will be motivated to buy these products as it clearly goes to show from the above result that these things matter to the consumer in their buying decision. One interesting aspect of this study was that usually all the predictors of TPB were found to be highly correlated in majority of the studies to green buying behaviour but only when their relationship was mediated by Intention to pay. In our study we have studied these predictors that Green Environmental Attitude, Green Personal and Social Norms, Green Perceived Behavioural Control and Intention to Pay independently, having direct relationship with Green buying behaviour and though they are having positive influence (Green environmental Attitude having highest influence) but the other three are comparatively less correlated (Green personal and Social Norms (Moderate Influence) and Green Perceived Behavioural Control and Intention to pay have weak correlation but positive and significant) as compared to other studies(D'Souza, Taghian and Lamb, 2006),(Ha and Janda, 2010), (Jansson et al., 2010), Thogerson and Olander, 2006).This goes to show that when these predictors are studied indirectly with Intention to pay as a mediating factor in between them and the dependent variable that is Green buying behaviour they seem to have more influence. It helps us in concluding that Intention to pay has more influence on green buying behaviour when studied as a mediating variable rather than an Independent variable. This also helps us in giving new insights regarding the working relationship among these factors.

Further regression analysis was done to see the impact of individual factor on GBB. Overall, the outcome of this study stipulated that the 7 factors/ predictors were found to positively impacting GBB.

In this article uniqueness of the framework is reflected in the fact that it is an amalgamation of 22 factors which have not been studies in the literature together before and its reliability and validity is also being empirically tested. Secondly it gives an idea as to what factors organizations need to pay attention to more and in which order with respect to Indian market while positioning them.

Conclusion

In this paper an overview of the Green Marketing concept was given, along with the discussion about the proposed framework. Finally the validity and reliability of the framework was investigated. The survey responses were analyzed on various issues related to green marketing and as to what factors influence or motivate consumers to buy a green product as well as analysis of the framework was done. Various statistical techniques, such as Descriptive Analysis, Reliability Analysis, Factor Analysis, Correlation and Multiple Regression were used. The data were analyzed using SPSS. The proposed framework was tested on the basis of 330 responses. The framework was found to be reliable. Validity analysis showed high levels of reliability. Researchers believe that using this structured framework and few problems that researchers have identified from the empirical investigation, researchers would be able to develop a Green Marketing grid which would guide marketers to position themselves in the minds of the consumers and build strong brand recall and recognition. Researchers aim to present this grid in there next paper with proper validation of the grid using Delphi technique.

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