

Consumer and Planet: Reasons of Behavior and Behavior of Reason

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Abstract

The business and consumption practices are causing irreversible damage to planet earth. The factors behind degradation include pollution, waste and resources depletion. The capitalist enterprise and materialistic consumerism lay unending demands on resources on the finite planet. Before it is too late, course correction is needed both on the demand and supply side. One such path is development ecologically consistent consume behavior. This study sought to explore the relative influence of different drivers of ecologically consistent behavior based on the Theory of Planned Action. The model conceptualized attitude, social and norms and perceived behavior al control as factors that determine intention to behave in ecologically consistent manner. And intention to behave construct is proposed as determinant of behavior. These relationships were tested using structural equation modeling. Two relationships that were found be significant include the role of perceived behavioral control on intentions and intention's role on behavior. The implications that flow from this research is that marketing programs must be developed on insights such that relative contribution of the drivers is increased.

Keywords: Perceived behavioral control, social norms, environmental consciousness, ethical consumption, pro-environment behavior.

Paper Type: Research paper

Introduction

Environment degradation is one of the top most challenges facing the humanity. The quest for higher standards of living and consumption driven model of economic prosperity has been steadily pushing the planet earth on the verge of complete destruction. As a result sustainability has become an important buzz word in both the business and political arena. The counter voices

emerging from several quarters have forced the governments and businesses to take note of alarming rate of environmental degradation. It is a matter of serious unease whether earth has capacity to support the standard of living that Americans typically enjoyed (Carlson et al., 1996; Kilbourne et al.,1997). Taking note of the environmental problems, even the World Bank (2003) proposed to incorporate three aspects to sustainability. The strategies must focus on economic profit, social or people impact and environmental or planet goals. Among the factors that have contributed majorly to environment degradation is energy consumption (Dunn, 1997). The consumption driven economic model continues to exert pressure on fossil fuel like coal and oil extraction industries (Brown et al., 1994). The changing food pattern has given rise to resource intensive industrial agriculture which is not sustainable because it is based on non-renewable resources and some of these resources are consumed faster than their regeneration (Horrigan et al., 2002). Consumption is a major contributing factor of degradation and world's powerful countries externalize their environmental and ecological costs due to unequal relationships (Jorgenson, 2003).

The most widespread metric of development is gross domestic product. And countries with a lower GDP are said to be less developed (Bartelmus, 1994). The debate now centers on evolving mechanisms to reconcile apparently conflicting goals of sustainability and development. Sustainable development implies meeting the needs of present without compromising the future generations' ability to meet their needs (Brundtland, G.H., 1987). Consumption is gratifying but it is undesired if takes the form of overconsumption (Grove and Kilbourne, 1994; Tilikidou and Zotos, 1999). This rising consciousness has effect on both the consumption and production side of the marketing equation. On the supply side, this concern reflects in creation of sustainable products which contribute favorably to through their attributes and consequences to the environment (Reheul et al., 2001).

Green marketing aims at reducing the negative impact of marketing on environment (Polonsky, 1994b).Increasing inclination towards the relevance of green marketing got reflected in the published literature (Fuller, 1999; Ottman, 1993). Environmental sensitivity became an important area of research in the west, in some cases, firms focused on making their products 'green' and thereby minimize adverse impact on environment (Sarumathi, 2014).Taking cognizance of the imperative many firms

now put in efforts to develop products and processes that harmonize profits and environment simultaneously (Arnst et al., 1997). The counter discourse proposes alternative ways of consumption which go by different expression like 'frugal consumption' or 'responsible consumption' or 'conscience consumption' or 'ethical consumption' which include ways to minimizing environmental impact. Frugality is restrained and conscientious consumption which insists on recycling, durability and reparability (Nash, 1998). It also implies disciplined production. Environmental consciousness saw emergence of newer ideas in marketing including responsible consumption (Fisk, 1974) and ecological marketing (Henion & Kinnear, 1976). The impact of environmental consciousness gave birth to the notion of an ecologically sensitive consumer (Kardash, 1976).

As in marketing, consumer is the focal point of environment movement. Firms are likely to embrace pro-environment approach if this sensitivity finds manifestation in their consumption behavior. A trend in favor of this is rise of reflexivity in consumers (Giddens, 1991). The reflexive consumer reflects upon cultural norms and looks critically upon the prevailing consumption practices from the perspective of environment. The new consumer's concern extends beyond the narrowly defined notions of value and embraces issues such as human rights, and working conditions of workers (Tallontire et al., 2001). Accordingly, it is not surprising that environmental consciousness and consumer behavior has been the focus on many studies (Prothero, 1990; Chase and Smith, 1992; Cramer, 1991; Shrum et al., 1995; Levin, 1990; Schlegelmilch, et al., 1996). These include studies environmentally sensitive consumer behavior (Follows and Jobber, 2000), renewal energy (Bang et al., 2000) and food consumption (Vermeir and Verbeke, 2006).

The modern lifestyle built upon the central notions of 'affluenza' and 'materialism' has become matter of critical debate (De Graaf et al., 2005). Equally important is the concern for ethical consumption and production. Ethical consumer seeks products that have minimum ecological and social impact (Lewis and Potter, 2011). One study reported that about thirty to forty percent of households in Melbourne gleaned items from hard rubbish (Lane et al., 2009). The ethicalization of consumption choices is driven by a complex set of motives including anti-consumerism and waste minimization and environmentalism (Lewis et al., 2012; Barnet et al., 2005). The ethical or responsible consumption which once linked with fringe lifestyle groups is entering into mainstream which was declared in Time magazine

as ‘The rise of the ethical consumer’ In one survey, about 40 per cent people revealed that they bought a product due to social or political value of its manufacturer (Stengle, 2009). The values find expression in consumer behavior. The ethical consumer’s feeling of concern for the society is expressed through his purchase behavior (De Pelsmacker et al., 2003).

The Study

The above background suggests that there has been a steady increase in awareness about the environment degradation and development of pro-environment attitude and values. The awareness about ecological problems including depletion of ozone layer, extinction of species, glaciers melting and water and air pollution is likely to mediate consumer buying by influencing alternative evaluation and selection in favor of environment compliant companies and brands (Han et al., 2010). The movie ‘Inconvenient Truth’ made a case for the need to be serious about the fast deterioration of the health of the planet earth. Three quarter of Americans think themselves to environmentalist (Ottman, 1997). Environment protection is no longer a political issue to be debated rather it is a moral imperative. The amalgamation of actors like the media, environmental organizations, and political discourse has contributed to building awareness about ecological crises and forcing people to realize their responsibility (Connolly and Prothero, 2008) and provided them with reason and rationale to shift to green life style (Prothero et al., 2011).

The surface reality check signals optimistic trend in consumer behavior. The pro-environment belief and attitude change can be assumed to act as a catalyst to force corporations to adopt eco-sensitive ways of doing business. But the critical issue is whether awareness or attitude is sufficient to drive consumers into eco-sensitive buying behavior. In one study (Verma, 2002), the green consciousness was supported by ecologically consistent consumer behavior. Similar inconsistency was reported in relation to marketing of renewal energy sources. It was found that although renewals enjoy widespread support yet firms marketing them have not been successful in their marketing (Gleason et al., 1996). The less than one percent of market share of products like organic food, fair trade products and legally procured wood signals an attitude-behavior gap (MacGillivray, 2000). The market for eco-compliant or green products continues to be insignificant (Rex and Baumann,2007). The presumed relationship between attitude and behavior is not new (Armitage and Christian, 2003) but doubts are often raised by attitude’s predictive

ability. For instance, the relationship between attitude and behavior was not established in the context of recycling behavior (De Young, 1990). The environmentally concerned people need not be the buyers of brands that are ecologically compliant (Barker and Ozaki, 2008; Kilbourne and Pickett, 2008). The gap between green attitude and behavior is reported in several studies (Jansson *et al.*, 2011; Kim and Chung, 2011). A study of Sri Lankan consumers found that strong green beliefs and attitude does not correspondingly lead to preventive action of buying green products (Samarasinghe, 2015).

From macro marketing perspective the rise of environmental beliefs and values on the one and poor ecologically insensitive consumption behavior on the other presents a mysterious puzzle. Intuitively there are broadly two possibilities of addressing environmental problems. The top down approach would involve legislations led corrective measures. The consumer led bottom up pressure can equally be effective in getting businesses to be ecologically compliant. The necessary condition for this to happen is when attitude-behavior gap is narrowed or completely eliminated. It is in this background that it is essential to find behavior determining factors and their relative influence. In order to address the issue of environmental degradation, specific behavior modifying interventions can only be devised after modeling antecedents to pro-environment behaviors. Not many studies have been done in this area of research in Asian countries (Chan, 2000; Lee, 2008) and general and India in particular (Khare, 2014). It is in this background the present study has been undertaken to investigate the pro-environment consumer behavior using the Theory of Planned Behavior (Ajzen, 1991) and Theory of Reasoned Action (Ajzen&Fishbein, 1980).

The Framework

Consumer behavior sits at the core of marketing. Marketing success both in social and for profit arena is built on getting the target audience respond in a particular desired way. The social or cause marketing like anti-smoking and drunken driving derives its success from behavior abandonment, modification and adoption of new behaviors. In this regard the construct of attitude offers help in strategy development. Attitude sums up the way someone thinks, feels and acts toward any aspect of environment including people, places and brands (Petty *et al.*, 1997). Attitude's relevance stems from their predictive ability of behavior. A person's attitude toward racism can be used to predict his behavior with other people (Baron

and Byrne, 1987). Similarly, how a person feels about the environmental problems may be a powerful indicator of his intention to adopt ecologically consistent behaviors. According to standard attitude hierarchy the learnt beliefs about something lead to formation of feelings which create disposition to behave in a consistent way (Lavidge and Steiner, 1961). Many studies, however, reported inconsistency between attitude and behavior and several additions were made in order to better its predictive ability (Shimp and Kavas, 1984).

One of significant contributions in quest for behavior prediction came in the form of multi-attribute model (Fishbein, 1983). Later this model saw modifications in order to improve its predictive ability in the form of the Theory of Reasoned Action ((Ajzen&Fishbein, 1977). The feelings of liking or disliking perform poorly in behavior prediction. Instead, intention to behave does the job better. Greater consistency is expected between attitude and behavioral intentions rather than attitude and behavior (Abelson, 1988). Therefore, behavioral intention measure is added to the model. It measures the attitude not toward the brand rather the attitude toward the act of buying or behaving. The feeling about buying and using an environmentally consistent brand or behaving in environmentally consistent ways are more valid than the feeling toward a brand. It further proposes that behavioral intention is influenced how significant others perceive when a particular behavior is adopted. It is perception how relevant social groups like friends or family would feel if someone adopts environmentally consistent behaviors. This construct is designated as social norms. Later, this theory evolved into the Theory of Planned Behavior (Ajzen, 1991) and a new construct was added labeled as 'perceived behavioral control'. It refers to an individual's perceived ability over performing a particular behavior. The people who perceive to enjoy control over their behavior are likely to stronger behavioral intentions (Fishbein and Ajzen, 2010). The people who perceive to have ability and freedom to behave in environmentally consistent manner are likely to have greater intention to execute pro-environment behaviors. Based on the theory of reasoned actions and theory of planned behavior, the following model indicating relationships between various constructs is used in the present study (Figure 1).

Figure 1: The proposed model

Methodology

In order to test relationships proposed in the structural model presented in figure 1 a questionnaire was developed after extensive review of literature. All relevant constructs namely attitude, social norms, perceived behavioral control, behavioral intention and environmentally consistent behavior were operationalised after establishing construct domain. This led to the development of a multi-item scale for securing responses.

The responses were collected on these statements. The respondents were asked to reveal their agreement or disagreement on a seven point scale. A total of 200 non –disguised questionnaires were distributed using convenience sampling method out of which 150 questionnaires were found to be complete in all respects. The responses were coded and entered for the purposes of running statistical analysis. The study employed structural equation modeling to test relationships between the constructs presented in the model for this purpose SPSS and AMOS were used. The SEM is suitable for testing specific hypothesis and examining relationships between constructs in the study. It enables answering interrelated question involving more than one dependent and independent constructs simultaneously (Gefen et al., 2000).

Reliability Analysis

The data were collected on multi-item scales for each of the five constructs. Therefore the data collected were subjected to testing of internal consistency of items. Cronbach alpha is one of the most commonly used measures in this regard especially when the items are scaled on Likert type questions. The first round of analysis revealed that some of the items had low item-to-total correlations on a threshold limit of 0.4. Therefore these items were deleted. The one item was deleted from the attitude scale (ATT5), three items were deleted from perceived behavioral control (PBC1, PBC2, PBC5) and five items were removed from behavioral intention measure (BI1, BI2, BI3, BI5, BI7). The reliability estimates were calculated again and these were found to be satisfactory. Although higher reliability coefficient is considered better but closer to 0.7 and above are acceptable (Loewenthal, 2004). These reliability scores for constructs used in the study are presented in the table 1.

Table 1: Reliability Coefficients of Constructs

SEM Analysis

Our model based on Theory of Planned Behavior sought to assess the interrelationships between five constructs. These relationships could be presented in two regression equations with two independent variables. The behavioral intention is shown to be dependent upon three

independent variables: attitude, social norms and perceived behavioral control. In the second equation the behavior is shown to depend upon behavioral intentions. Structural equation modeling is suitable in testing relationships in these kinds of situations because it allows concurrent investigation of several regression equations through specification and examination of structural model (Hair et al., 1998; Gerbing and Anderson, 1988). SEM helps in evaluating the theory by exploring the relationships between endogenous and exogenous variables (Byrne, 2001; Tabachnick and Fidell, 2001). Through structural equation modeling the relationship of dependence between latent variables which is captured in structural model and linkages between the latent constructs and their indicators given in measurement model can simultaneously be analyzed. The technique makes use of Maximum Likelihood Estimation wherein the probability of obtaining observed covariances from same population (indicated by correlations) is maximized.

The inter-relationships between the constructs are illustrated through a structural model in SEM. Several indicators make up a construct which is called a latent variable, while the indicators of the construct are known as measured variables. Our study has five latent variables namely, attitude, social norms, perceived behavioral control, intent and behavior. These variables are measured by multiple observed variables. In our measurement model, four observed variables represent attitude, three observed variables relate to social norms, perceived behavioral control is measured by two variables, intention is assessed through six observed variables and behavior is reflected by two observed variables. Measurement error is accounted for by error terms with every observed variable. The regression coefficient between independent variable and dependent variable is depicted by single headed arrows.

Figure 2: Structural Model for assessing Pro-environment Behavior

Our structural model (figure 2) is based on four substantive hypotheses derived from theory of planned behavior. The task of substantiating the extent to which the proposed structure of relationships is consistent with empirical data is confirmatory in process. This is done by comparing the implied covariance matrix with actual covariance matrix based on observed data. Accordingly, the structural model was estimated using ML (maximum likelihood) method and model estimates were examined. Firstly, fit indices were looked into in order to establish the degree of model fit to the observed data. The structural model exploring the inter-relationship between the constructs was

found to have a good fit to the observed data. The normed chi square statistic (CMIN/DF) was found to be 1.955 (well below the threshold limit of 3.0) (Wheaton et al., 77). CMIN/DF is based on the magnitude of discrepancy between the sample and fitted covariance matrix. CFI was found to be 0.965 (recommended level-0.95) (Hu and Bentler, 1999) and RMSEA (root mean square estimation of error of approximation) was 0.069 which indicated a fair degree of fit.

The overall adequacy of the comprehensive model was examined by testing hypothesis with the help of path analysis (SEM). Table 2 below gives the path coefficients (standardised estimates) of the structural model, along with standard error, critical ratios and the p-value. Standardised estimates are the standardised regression weights; standard error is with respect to the regression weight estimate; critical ratio is the z estimate derived by dividing the regression weight estimate by the estimate of its standard error, it tells by how much standard error is the regression weight estimate above zero and p value is the estimation of whether the probability of getting the given critical ratio in absolute value is less than 0.001.

Table 2: Standardised estimates for hypothesized relationships

Discussion and Implications

The four hypothesized relationships of dependence which were tested in this study were derived from the theory of planned behavior in the context of pro-environment behavior. The statistical summary of the results of the structural model is presented in the table 2. The four hypothesized relationships were as follows:

- H1: pro-environment attitude contributes significantly to intention to adopt pro-environment behaviors
- H2: social norms contribute significantly to intention to adopt pro-environment behaviors
- H3: perceived behavior control contributes significantly to intention to adopt pro-environment behaviors
- H4: pro-environment intention to behave significantly contributes significantly to pro-environment behavior

The four paths are depicted in the Table 2. The coefficient of the two paths reflecting the H1 and H2, Attitude → Intent, Social Norms → Intent were not found to be significant. However, the H3 indicated by the path perceived behavioral control → Intent is accepted because it has significant

coefficient. The relationship indicated by Intent → Behavior was found to be significant hence H4 stands accepted. The question that arises is what how can these results be interpreted and what are their policy implications.

In our study a lack of connection between attitude and intention to behave has been found. This implies that the feelings against environmental degradation do not contribute significantly to intention to behave in ecologically consistent manner. It is like people may have negative attitude towards pollution yet they don't intend to compromise on their pollution causing behaviors including car driving. What causes this gap to happen? One reason that may cause this to happen is perceived lack of involvement with the issue in question. When attitude is held at global level and is not compelling enough; that causes a person to see its importance from his personal point of view. In such situations, involvement with the issue can be raised, that is by establishing a linkage with something of significance for the target audience. For instance, people tend to have very high involvement with their children. A communication can transform global positive attitude in favor of environment protection into personally relevant by showing how it can harm their children and thereby strengthen attitude's connection with intention. Further, attitude may weakly contribute to intention formation because of lack of availability or perceived difficulty in adopting some behaviors. This relationship can be strengthened by providing easy to adopt alternatives. For instance, energy production is one of the major contributors to environmental degradation yet people may not intend to adopt energy saving options because of perceived difficulty in their adoption due to price or compatibility. People don't intend to adopt solar energy due to upfront investment and low ease of adoption of these systems (Vermeir and Verbeke, 2005).

The second hypothesis is derived from the theory that social groups exert pressure on individual to behave in conformity with the norms and values. This influence tends to be stronger in closed cultures like that of Asian countries. By an implicit system of reward and reprimand social groups extract compliance from its members. Our study revealed insignificant contribution of social norms towards building intention to behave in environmentally sensitive manner. It implies that pro-environment behaviors are neither appreciated and nor anti-environment behaviors are looked down upon. This social influence neutrality does not create pressure on

people to develop intentions. The implication that flows from this analysis is that unless environmentally inconsistent behaviors are perceived to be violation of injunctive social norms the behavior modification is unlikely to happen. Injunctive social norms suggest behavior acceptability or unacceptability (Schulz et al., 2007). For instance when a picture of smoke billowing car on face book gets huge number of 'dislikes and questioning emoticon, it suggests disapproval. However, much better results could be achieved if pro-environment behaviors become injunctive norm at the personal level (Stavrova et al., 2011). This is likely when environment consistency assumes the position of personal beliefs and values. The environmentally conscious people likely find pro-environment behaviors personally satisfying for their consistency with their attitudes and values.

The poor effect of social norms on behavioral intention throws up an interesting challenge for the planners. It is important that environmental consistency must become as a dominant social injunctive norm. It should enter the collective consciousness and emerge as cultural value or standard. Culture is set of widely shared beliefs, values, thoughts and manners (Goodenough, 1971; Child and Kieser, 1977). It prescribes the acceptable social ways of behaving. Currently the environment conservation may exist as injunctive social norm for limited 'green' consumers sub-culture but for it to be effective it needs to become a dominant cultural value. The learnt ways of behaving which are passed on inter-generationally require change. In this regard top down communication from authoritative opinion leaders could be leveraged to introduce value change by way of serial word of mouth communication. The authoritative and credible leaders could be employed as change agents to inject new pro-environment values in their social sphere of influence. Further reference groups which enjoy referent power can motivate people into environmentally consistent behavior by the process of emulation and identification. For instance, many young women identified with Kareena Kapoor and adopted her style of yoga as standard of exercise.

The coefficient of third path indicating a dependence of behavioral intentions on perceived behavior control is found to be significant. It implies the people who perceive that they can or able to behave in environmentally consistent manner plan to do so. It is all about perception of control over one's behavior not actual reality. Many factors may contribute to the development of this 'can do' spirit including the wherewithal or necessary resources and freedom to act. Stated conversely, the perception of incapability dampens the motivation and dampens intention

to behave. People hold beliefs about the presence of factors that obstruct or facilitate in performing certain behaviors. The perception of presence of obstructing factors and ability to counter their effect are likely to determine intentions. Those who think that they have required skills, capabilities and resources to perform are likely to have a sense of perceived behavioral control (Bandura, 1997). The implications that flow from this finding are that a sense of control requires to be created among people by altering perception. For instance if cost of adoption of solar panel or water recycling method is behavior impeding factor then communication that creatively minimizes the perception of cost could have intention altering effect. But prior to perception management the presence of pro-environment products and services is essential. Many people have adopted hybrid cars after their efficacy is proved both in terms of product performance and cost of ownership. Similar results have been achieved with regard to energy conservation by adoption of LED bulbs.

The last path in our model exhibits the dependence of behavior on intention to behave. This relationship has been found to be significant. That is intention to behave is a significant predictor of behavior which is in consonance with Ajzen (1991, 2001). Getting the people to develop environmentally consistent behavior intention is important first step before they actually begin to adopt those behaviors. As discussed in earlier paragraphs, intentions determining factors as stated in the model and their relative contribution should become basis of this transformational marketing efforts. Contrary of our finding, often the relationship between these construct may also not be significant. That is, the intentions may not fully lead to behavior actualization. One study found that intentions could only explain about thirty percent of variance in behavior (Sheeran, 2002). This could be bridged by creating implementation intentions (Gollwitzer and Sheeran, 2009) by which where, when and how to behaving are specified instead of cultivating intentions on a globalized basis.

Concluding remarks

Environmental degradation over time has been pushing the planet earth on the edge of irreversible damage. To a great extent environmentally insensitive business and consumption activities are responsible for this phenomenon. In order to get back on course, a shift of business and consumer behavior is needed. The two pronged efforts in this direction require that business either voluntarily or legally adopt pro-environment practices like recycling, pollution control and reducing dependence on fossil fuels. And consumers, on the other hand, must adopt environmentally sensitive behaviors including recycling, adoption of green products and energy and water conservation. It is in this background this study was conducted on youth segment to

find out their ecologically consistent behavior using the framework prescribed by the theory of planned behavior. This theory explains determinant of behavior by way of three independent variables: attitude, social norms and perceived behavior control. In order devise appropriate marketing strategy to promote ecologically consistent behavior it is important to estimate the contribution of independent variables. For this purpose, structural equation modeling was used. It was found that attitude and social norms did contribute significantly to the intention to behave. However, perceived behavioral was found to be a significant contributor to intentions. The marketing implications include that the attitude to intention relationship can be strengthened by communication making environmental protection as personally significant. The absence of norms or their influence requires that environment conservation be raised to a level of collective consciousness such that it operates as an injunctive norm. Lastly, since perceived behavioral makes a significant contribution to intention to behave in ecologically sensitive manner, a sense of perceived ability or 'can do' spirit must be created and reinforced by appropriate communication and alongside enablers of pro-environment behaviors must be provided.

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Appendix

Figures

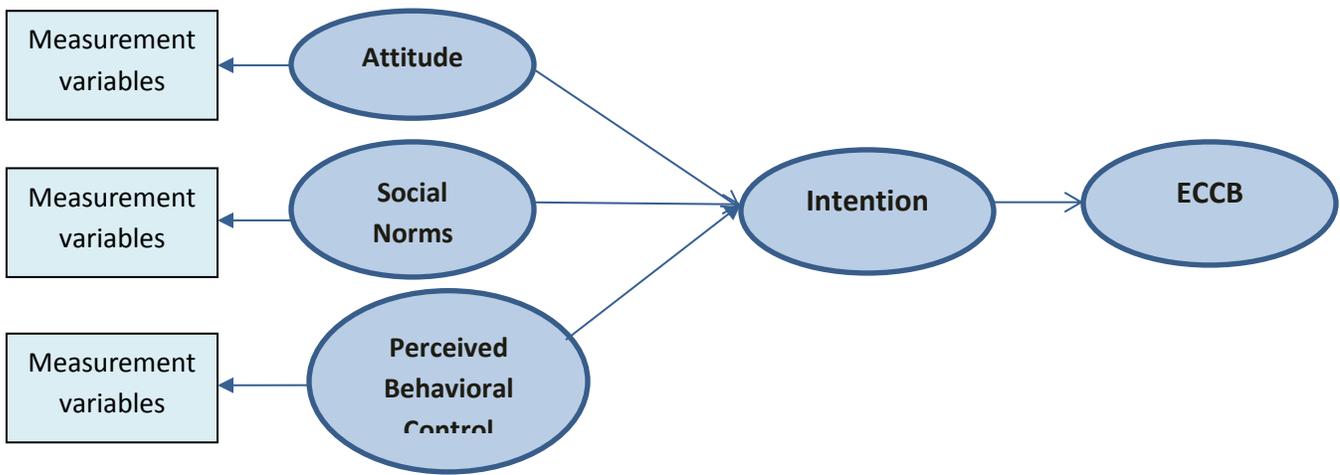


Figure1: The proposed model

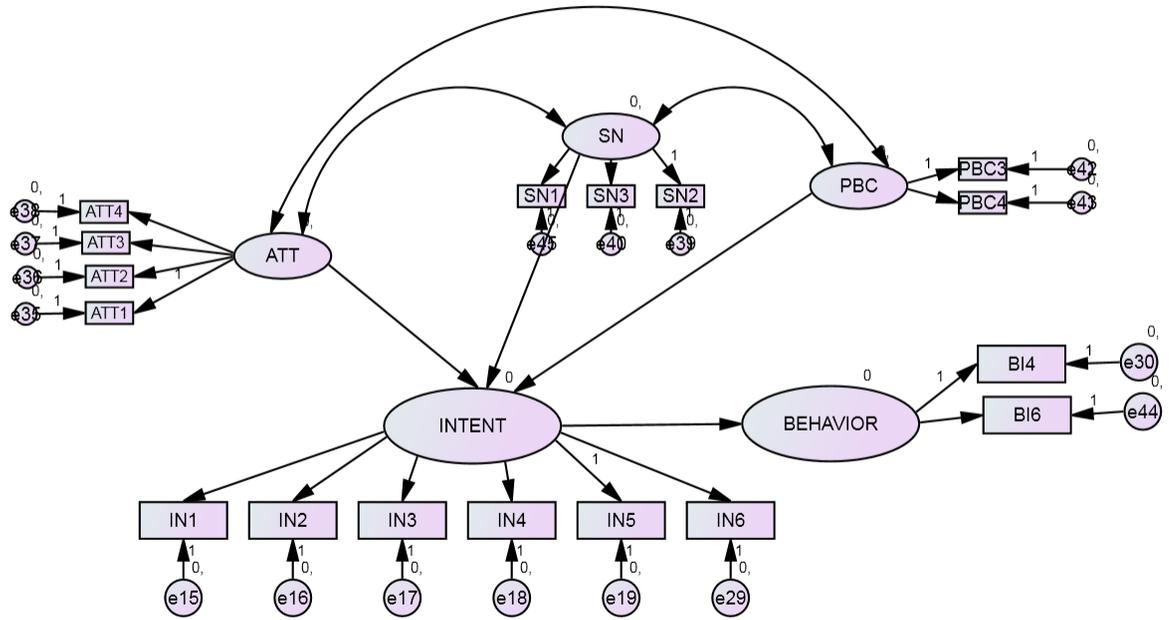


Figure 2: Structural Model for assessing Pro-environment Behavior

Tables

Table 1: Reliability Coefficients of Constructs

Construct	Reliability Coefficient
Attitude	0.698
Social Norms	0.685
Perceived Behavioral Control	0.649
Intention	0.734
ECCB	0.840

Table 2: Standardised estimates for hypothesized relationships

Hypotheses	Relationship	Standardized Estimate	Standard Error	Critical Ratio	P Value

H1	Attitude → Intention	0.170	0.240	1.074	0.283
H2	Social Norms → Intention	0.121	0.105	0.863	0.388
H3	Perceived Behavioral Control → Intention	0.845	0.168	3.692	***
H4	Intention → Behavior	1.000	0.181	4.045	***

*** This implies regression weights significant at 0.1% significance level.