

A Comparative Consumer Behavioural Intention Model for Green Hospitality Services – Evidences from Hotels, Restaurants & Theme Parks

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Cite as:

Choudhury Debdutta (2024), A Comparative Consumer Behavioural Intention Model for Green Hospitality Services – Evidences from Hotels, Restaurants & Theme Parks. *Proceedings of the European Marketing Academy*, (122497)

Paper from EMAC Regional Conference, Lisbon, Portugal, September 25-27, 2024



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Abstract

Hospitality industry, a major arm of tourism industry, has initiated several measures for green sustainable practices. To understand consumer behaviour in this industry, a literature review was done to develop the consumer behaviour model. A modified model using certain constructs of Theory of Planned Behaviour (TPB) and Values-Beliefs-Norms (VBN) were chosen as the base theories and a covariance-based structural equation model (CB SEM) was created to test the strength of relationships across the variables. The findings indicate that consumer environmental concern do not directly lead to positive attitude towards green services until it is mediated by environmental communication. This finding will help the green hospitality services to adequately design suitable communication strategies to increase consumer awareness, positive attitudes and pro-environmental behavioural intentions.

Keywords: Environmental Communication, Green Services, Behavioural Intention

1.0 Introduction

The United Nations estimates that Tourism constitutes 5% Carbon Dioxide emissions globally and that would increase drastically by 130% by 2035 (UNWTO, 2010). However, environment and tourism has to go hand in hand and the industry has to find a fine balance between sustainability and profitability (Moellar, Dolnicar, Leisch, 2011). In recent years, all the major constituents of the tourism industry including hospitality have taken several sustainability measures and have widely publicised them to create awareness among tourists. The changing customer awareness and preference for green lodging (Manganari, E.E.& Dimara, 2015) has made many hotels opt for eco-friendly measures but customer awareness is low for these measures (Rahman, I. & Reynolds, D., 2017). It is therefore imperative for the hospitality industry to communicate the several green measures they have undertaken to create trust among the customers.

2.0 Literature Review

Analysis of the extant literature highlights certain significant gaps in the current research on hospitality. The majority of the study had been on the green hotels and to some extent on the green restaurants. However there has been very little research to compare the relationships across three constituents of hospitality industry, namely, hotels, restaurants and theme parks.

2.1 Theory of Planned Behaviour (TPB)

Developed in 1985 to explain human conscious decision making (Ajzen,1985), TPB has been one of the most popular models to explain a wide range of behaviours from sports to medicine to tourism to retail etc. The central factor of this theory is the intention to conduct a certain behaviour. Intention as a construct captures the degree of willingness of an individual to conduct a certain behaviour. Therefore, for a volitional behaviour, intentions play a very key role (Ajzen, 1991).

2.2 Value Belief Norm (VBN) Theory

This theory proposes that pro environmental behaviour can be explained by values, behaviour and norms that each individual may develop (Stern et al, 1999). The causal chain moves from central human values to beliefs like NEP, understanding of adverse consequences (AC) and ascription of responsibility (AR). Based on these beliefs an individual develops a Pro Environmental Personal Norm. Pro Environmental Norm was defined as the moral obligation that creates a predisposition to act. The theory argues that individuals with certain humane values (Altruism etc.) develops and certain set of beliefs (NEP etc.) and norms that influences their worldview.

2.3 Problem Definition and Approach

TPB focus is on rational decision making based on expectancy value model where behavioural intentions and behaviours are transactional. VBN on the other hand stresses that behaviours are influenced by the fundamental personal values and beliefs. In the real world of environmental sustainability debate, there has always been a trade-off between rationality and humanistic values. Human attitudes towards environmental conservation and sustainability are shaped by altruistic and biospheric values and rational considerations of cost and convenience as witnessed in the COP 28 in 2023 and Paris Climate Agreement 2016. Hence the research would focus on a model that combines certain human values and beliefs from VBN theory along with rational mental heuristics of TPB model to create a sequential causal chain model towards consumer behavioural intentions towards green hospitality services.

2.4 The Research Framework

Altruism is acting for the benefit of others without thinking of oneself (Schwartz, 1977). Customers with a high level of altruism are more environmentally conscious without thinking of their benefit (Nath et al., 2014). Customer Environmental Concern can be defined as “general attitude toward environment that reflects the extent to which consumers are worried about threats to the environment” (Lee et al., 2014). Environmental concern can be looked upon as a “subset of morally tinged human concerns, rooted in universal values” (Stern et al, 1995). In other words, environmental concern has its roots in altruistic mindset of a person. Recent research also shows Altruistic behaviour promote pro environmental behaviour (Xu et al. 2021) and green patronage reasons (Tan et al 2020). Therefore, we propose the following Hypothesis.

H1: Altruism positively influences Customer Environmental Concerns

Numerous studies have been conducted to investigate the relationship between customer environmental concerns and green service attitudes. Attitude towards a behaviour is based on person’s belief about the outcomes associated with the behaviour and the strength of the relationships. (Ajzen, 1985). Research revealed that customers with higher environmental concerns perceived green restaurant services more positively (Hsu et al, 2018). Similar studies across multiple service domain has established that customers with higher environmental concerns will have a more positive attitude on green services (Lee et al, 2017; Chiu et al, 2017; Wang et al, 2018; Singh et al, 2019). Recent research also supports that knowledge and environmental concerns impact the attitude of green services (Adetola et al. 2021; Wang et al. 2020; Sultana et al. 2022). Therefore we propose the following hypothesis.

H2: Customer Environmental Concern has a positive influence on Attitude towards Green Services.

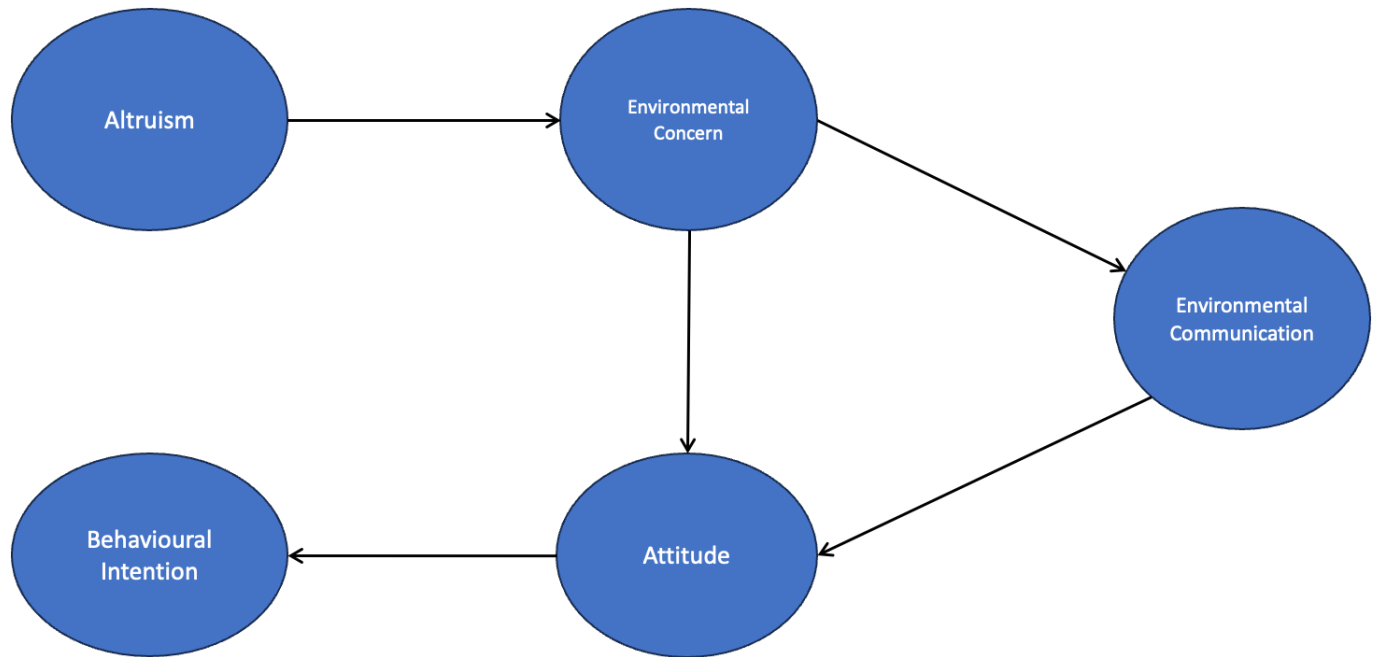
Environmental communication is defined as: “the process of communicating environmental information to build acceptance, reliability, and partnerships, to raise awareness, and to use in decision making. The processes used and the content of environmental communication will vary with objectives and circumstances of the organization” (Daddi et al, 2011). Mandatory and voluntary environmental communication and disclosure leads to reputation (Kumar S, 2021). Service providers today are implementing green practices and communicating the same to their prospective and present customers. Customers can only appreciate the green practices if the service provider can communicate this effectively and assist the customer in developing a favourable perception (Prud’homme et al, 2013; Wang et al, 2018). Research has shown that consumer attitude towards provider green practices is influenced by provider environmental communication (Acompora et al, 2022). Therefore, we propose the following hypothesis.

H3: Provider Environmental Communication mediates the relationship between Customer Environmental Concern and Attitude towards Green Services.

The relationship between attitude and behavioural intentions is well established in research literature. Both Theory of Planned Behaviour (TPB) and Cognitive Dissonance Theory postulate that human beings are comfortable if their beliefs and behaviour are consistent. The theories suggest consumers with strong environmental mindsets tend to have pro-environmental behaviour (Lin et al, 2022) With relation to the hospitality industry, studies indicate positive attitudes towards food leads to intentions of purchase intentions (Choe & Kim, 2018). Tourism studies also revealed that antecedents such as Environmental Attitude is one of the key drivers to pro environmental behaviour (Kiatkawsin and Han, 2017; Wong et al., 2020; Premi et al, 2019). Therefore, we propose the following hypothesis.

H4: Customer Attitude towards Green Services has a positive influence on Customer Behavioural Intentions.

Figure 1: Proposed Theoretical Model



3.0 Methodology

A questionnaire was designed with the help of existing literature to collect data against the variables in the model. All items were measured with a 7 point Likert scale strongly disagree (1) to strongly agree (7). Primary data was collected through a quota sampling method based on age demographics using a questionnaire created from established literature. A minimum 200 samples of respondents were targeted to maintain sample size to free parameter ratio around 1:10 (Bentler & Chou, 1987) and between 200-400 (Jackson, 2001; Bandalos, 2014)

The respondents profile would include the following.

- Stayed in a 4 or 5 star hotel at least once in last 1 year, Dined at a restaurant at least once in last 1 year and visited at least one theme park in the last 1 year.
- Has to be at least an adult i.e. 18 years old.

Quota Target

Age Group	% of Sample
18-30	70- 75%
30-45	11-15%
>45	5-10%

Total 368 responses were collected and after eliminating partially filled responses and outliers, 322 responses were used for model calculation.

4.0 Data Analysis

4.1 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was conducted separately for each constituent of the hospitality industry and the data confirmed the factors identified through literature review. The factor structures are as per literature. However, the observed variable “A1” has a loading of < 0.6 in hotels and restaurants and marginally above 0.6 in the latent variable “Altruism” which is above the minimum loading. The variable A1 was not considered. The entire model fit for CFA is also satisfactory and hence the data can be processed for CB-SEM Analysis.

4.2 Structured Equation Model

The theoretical model was tested using Smart PLS software through a Covariance based Structural Equation Modelling (CB-SEM). The observed variable “A1” was not considered for the model building.

Table 1: Path Coefficient Comparisons

	Hotel Path coefficients (standardized)	Restaurant Path coefficients (standardized)	Theme Park Path coefficients (standardized)
Altruism -> Environmental Concern	0.680	0.787	0.730
Environmental Concern -> Attitude	0.161	0.110	0.085
Environmental Concern -> Environmental Communication	0.583	0.656	0.646
Environmental Communication -> Attitude	0.759	0.811	0.876
Attitude -> Behavioural Intention	0.884	0.895	0.948

The path coefficient comparisons across all the three sectors of hospitality reveals a similar trend across individual paths. In all three domains, Environmental Communication to Attitude and Attitude to Behavioural Intention show the strongest relationship among all paths. The model is comparable across all three constituents of the hospitality industry in question in this research and thereby shows replicability across domains. Environmental Concern is weakly linked to development of green Attitude. However, the relationship becomes significantly stronger when mediated by provider Environmental Communication.

Construct Reliability across all three constituents using Cronbach Alpha and Average Variance Extracted shows satisfactory values. Discriminant Validity was tested using Fornell Larcker criteria across the three constituents and found to be satisfactory.

Model fit was tested across three constituents. The values are as per the table below.

Table 2: Model Fit

Constituents	Chisquare/ Degrees of Freedom	Root Mean Square of Approximation (RMSEA)	Normed Fit Index (NFI)	Tucker Lewis Index (TLI)	Comparative Fit Index (CFI)	Standardised Root Mean Square Residual (SRMR)
Hotels	2.484	0.081	0.881	0.911	0.925	0.068
Restaurants	2.772	0.074	0.913	0.932	0.942	0.054
Theme Parks	2.402	0.093	0.879	0.911	0.925	0.054

4.3 Mediation Effect

Mediation effect of Environmental Communication in the relationship path between Environmental Concern and Attitude was tested using Preacher & Hayes (2008) procedure. This procedure involves bootstrapping twice i.e. once without the mediator variable and once with the mediator variable.

A CB-SEM bootstrapping was performed with 5000 iterations and at a significance level of 0.05. The indirect effects demonstrate that the paths without Environmental Communication shows a p value higher than 0.05 whereas with Environmental Communication shows p value within 0.05. This establishes the mediation effect of Environmental Communication.

VAF (Variance Accounted For) score was calculated for all three constituents, namely hotels, restaurants and theme parks. The scores are given as per table below.

Table 3: VAF Scores

	Hotels	Restaurants	Theme Parks
VAF Score	0.3973	0.4547	0.4654

Since the VAF Scores lie between 0.39 and 0.46 the mediation is considered partial.

Sobel Test Statistics was also conducted to again verify Mediation effect. The scores are given as per table below.

Table 4: Sobel Test Scores

	Hotels	Restaurants	Theme Parks
Sobel Z Score	5.67041929	5.67041929	5.83614247

The Sobel test scores also confirm the mediation effect.

The VAF score across the three sectors, namely hotels, restaurants and the theme parks varies from around 0.39 to 0.46 indicating partial mediation of environmental communication between environmental concern and green attitude. Environmental concern is a construct that captures consumer's value and belief system. This research shows that in case of green hospitality services, values and beliefs can be converted into positive green attitudes through an active mediator like environmental communication. In this case, environmental communication partially mediates the said relationship and highlights the importance of communicating the efforts towards sustainable practices by the service providers in shaping the attitude of the consumers. The partial mediation signifies that environmental concern is partially linked to developing green attitude through the mediation variable.

4.4 Hypothesis Testing

Hypothesis	Conclusion
H1: Altruism positively influences Customer Environmental Concerns	Supported
H2: Customer Environmental Concern has a positive influence on Attitude towards Green Services.	Not Supported
H3: Provider Environmental Communication mediates the relationship between Customer Environmental Concern and Attitude towards Green Services.	Supported
H4: Customer Attitude towards Green Services has a positive influence on Customer Behavioural Intentions.	Supported

The hypothesis that environmental concern has a direct positive impact on consumer green attitude could not be supported across all three constituents of the hospitality industry. This is a significant finding especially from a practical standpoint since it implies that

environmental concern does not automatically leads to green attitude but needs a moderator like environmental communication to develop thus.

5.0 Contributions

5.1 Theoretical Contribution

This research has several theoretical contributions in terms of modifying and extending the extant models for consumer decision making. This research establishes that Values and Beliefs can be antecedents to attitude in the context of the hospitality services. The research establishes that “Altruism” as a construct, positively influence “Environmental Concern”. Altruism is a native human value that influences belief and norms. Environmental Concern is a combination of cognitive and normative beliefs that positively influences green attitude through “Environmental Communication”. This research establishes that Values and Beliefs (VBN Theory) influence Attitude and Behavioural Intention (TPB) through a partially mediating variable “Environmental Communication”. Hence Environmental Communication acts as the trigger for converting humane values and beliefs into rational attitude and behavioural intention.

Perceived Behavioural Control has been made implicit in this research by considering only users of a certain level of hospitality services for the data analysis. This research is for existing users of a certain level of hospitality services to understand whether their behavioural intention would be as strong and if there is a positive impact on loyalty and premium pricing intentions due to green practices. The research establishes a strong positive relationship across the model in such case.

Environmental Concern has been constructed as a mixture of beliefs and subjective norms and has been conceptualised as an antecedent of attitude. This is a departure from the standard TPB model but has mentions in the extant literature (Han, 2015). This research reaffirms the new path and also establishes that environmental communication as a mediator strengthens the path between Environmental Concern and Green Attitudes in the hospitality industry.

The trigger construct of Environmental Communication in converting fundamental human values and beliefs into a rational transactional attitude and behavioural intention is a novel theoretical find. Environmental Communication as a construct has several mentions in the extant research. However, the impact of this variable in partially mediating the relationship of a deep belief (Environmental Concern) into an attitude for using green services. This is an indication that deep human values and beliefs can be converted to attitude and intention if a communication stimulus is provided. This underlines the importance of communication in the green hospitality services which is still a relatively new area.

The research therefore establishes a new decision model for consumer intention on green hospitality. The model created was built with certain elements of TPB and VBN. However the model is unique and not just a integrated TPB-VBN model as is in most extant literature. Though the path from values to intentions are quite established but this model combines to create certain new paths to indicate a new facet of consumer behaviour. The connection between altruism to environmental concern to environmental communication to attitude to behavioural intentions is unique and can be construed as a contribution to incremental theory building.

5.2 Practical Implications

This research has wide ranging practical implications. Firstly it covers three components of hospitality industry namely hotels, restaurants and theme parks which covers three levels of temporal engagements. Hotel stay can be construed as a longer time engagement between service providers and customers, whereas Theme Parks have a medium range

engagement (3-5 hours) and restaurants a shorter engagement (1-2 hours). This research looks at the consumer behaviour across these three domains of hospitality and compares the different relationships. The path relationships across the three models denote similar strengths of relationships. This signifies that the model is widely acceptable as a common predictor across these domains of the hospitality industry.

This model also highlights the importance of Environmental Communication that triggers positive green attitude. This signifies that effective environmental communication will impact customers with high environmental concern to think positively about sustainability initiatives of the service providers. Hence it is of paramount interest to the hospitality industry to create effective, memorable and impactful communication artifacts about their sustainability initiatives. Thus behavioural intentions of revisit and paying price premiums can be achieved when the right set of customers are targeted with the right communications mix.

6.0 Limitations and Future Research

The research has a geographical limitation of all respondents being from India. The research is limited to the experiences of customers above the age of 18 but younger customers may be more important target group for the theme parks. However since this research is based on established theoretical models it should be replicable in various demographics. Future research can work on these limitations and create a more broad based project. The scale also needs to be tested with other constituents of hospitality industry mainly destinations and resorts. Future research may also extend the same to consequences of behaviour intention into building consumer loyalty and brand image.

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