

Adetola, Odugbesan Jamiu; Aghazadeh, Sahar; Abdullahi, Maryam

## Article

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# **Perceived Environmental Concern, Knowledge, and Intention to Visit Green Hotels: Do Perceived Consumption Values Matter?**

Odugbesan Jamiu Adetola (Corresponding author)  
Department of Business Administration, Faculty of Economics and Administrative Science  
Cyprus International University, North Cyprus, Turkey  
Email: odugbesanadetola@gmail.com

Sahar Aghazadeh  
Department of Economics, Final International University, North Cyprus, Turkey  
Email: sarahaghazadeh@gmail.com

Maryam Abdullahi  
Faculty of Tourism, Eastern Mediterranean University, North Cyprus, Turkey  
Email: mam.shelia@yahoo.com

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## **Abstract**

Though, the call for environmental protection is on the increase, the ability of the hotel consumers to pay for green product is still a challenge for tourism industry. This study sought to expand existing understanding of consumer's environmental concern and knowledge in relation to consumers' green hotels visiting intention by testing the extended social exchange theory. Specifically, perceived environmental knowledge and concern were incorporated into the social exchange theory to understand comprehensively consumer's perceived consumption values with respect to their intention to visit green hotels. The data from 401 hotel guests in Nigerian hotels was analyzed using partial least square - structural equation modeling (PLS-SEM) by using WarpPLS 7.0 software. Results show that the theoretical framework proposed in the study has a significant capability to determine intention and identified significant impact of perceived environmental knowledge, concern and consumption values in generating intention to visit green hotels, as well as the significant mediating effect of perceived consumption value in the model. The finding from this study provides additional perspective into consumers' process of decision-making, with an implication for hotel managers in the development and execution of hotel operations that would account for eco-friendly purchase behavior among hotel guests in Nigeria.

**Keywords:** eco-friendly hotels, social exchange theory, perceived consumption values, Nigeria.

## 1. Introduction

All around the world, there is continuous growing concern in respect of the environmental challenges such as global warming (Han & Yoon, 2015; Mohd, 2015). Due to increase in environmental awareness, as well as the trends of the carbon reduction (Odugbesan et al., 2020), eco-friendly hotels are becoming a prominent direction for doing business in the hospitality industry (Demir et al., 2021; Yan & Chai, 2021). According to WTTC (2015) hospitality industry is posited to have generated about US\$7.6 trillion in 2014, which contributes significantly to many national economies (Esu, 2015), and grew up to US\$9.2 trillion prior to the pandemic, but suffered a loss of whopping US\$4.5 trillion to reach US\$4.7 trillion in 2020 (WTTC, 2020). Tourism and hospitality industry is known to have accounted for about 40% of services trade (UNWTO, 2015). In Nigeria for instance, about 1.7% (NGN 1,623.8 billion) to total GDP was accounted for by the tourism and hospitality industry in 2015, while about 1.6% (651,000) employment were created in the same year (UNWTO, 2015). Meanwhile, as at 2020, the travel and tourism industry in Nigeria contributes about 4.5% (US\$18,077million) of the total economy, while 4.7% (3.354 million jobs) of total employment were created during the same period (WTTC, 2020). This indicates the significance of travel and tourism industry to a nation's economy and the world economy in general. However, as a result of the intangible services and perishables services being rendered by hotels which aimed towards the satisfaction of their customers, and while in the process of satisfying the customers, lots of resources are expended and as well generated lots of waste; these have enabled the increase of the attention of scholars towards the industry sustainability (Hall and Lew, 2009).

Barber (2014) and Han et al. (2011) observed that hotels that adopt eco-friendly designs and operation by adopting eco-friendly practices, such as reduction of emissions from pollutants, procuring eco-friendly products, and preservation of water and energy, are considered to be green hotels. Thus, it is expected of green hotels to ensure the reduction of environmental degradation through the adoption of measures such as conservation of energy, reduction of waste, and conservation of water (Demir et al., 2021; Ecomall, 2008; Yan & Chai, 2021). Krakovsky (2008) opined that an appeal should be made to their guest environmental awareness by advising them to reuse towels and stay away from utilizing disposable items during their lodging period in the hotel. The adoption of these measures by the hotel will enable them to contribute their quota to the conservation of environment and sustainable development, while also attracting customers who identify with these ideas (Gunter, 2005; Jones, 2002). Similarly, Wang et al. (2018) argued that a hotel that adopts the eco-friendly practice has a lot to gain aside the contribution to the environmental sustainability. The adoption of ecologically friendly practices would enhance the hotel credibility, while it would also decrease the functionality costs, as well as generating an appreciable economic benefit (Demir et al., 2021). This view was congruent with the position of Mousavi et al. (2017) who observed that adoption of green practices have become an important strategy for hotels in carving a niche for themselves in the industry with the aim of achieving competitive advantages. But, not all the hotel managers are yet adequately understands the benefits of eco-friendly hotels, which makes them failed to

tends towards eco-friendly hotels. This is an indication that more research is still required to entrenched deeper understanding of the concept (Mousavi et al., 2017). Meanwhile, Chang et al. (2014) argued that the unsatisfactory development of green hotels should not be solely blamed on the hotels' management, but also the customers who have a role to play, because their intention to stay at the hotel is significant for the improvement in the development of the green hotel. Thus, Rahman et al. (2015) posited that the transformation of a hotel to a green hotel should be cooperation between the hotel management and the customers.

Studies abounds that have previously investigated environmental issues within the hospitality and tourism industry, which includes environmental behavior and concerns (Alzboun et al. 2016; Batle, Orfila-Sintes, & Moon, 2018; Demir et al., 2021; Hsiao et al., 2018; Hou & Wu, 2020; Nimri et al. 2020), green marketing (Chan, 2013; Maichum et al., 2016), the willingness of the customers to pay for green consumptions (Kang & Stein, 2012; Rahman & Reynolds, 2016; Wnag et al. 2018), and their intention to visit and stay in an eco-friendly hotel (Chang et al. 2015; Choi & Jang, 2015; Choi et al., 2015; Han et al., 2010; Lee & Cheng, 2018; Nezakati, 2015; ; Yan & Chai, 2021; Zhang et al. 2018; Wang et al. 2018). Meanwhile, some of the studies are within the developed world context, while the studies within developing world are few and scant, especially in Nigeria. This leaves a gap that becomes imperative to fill. Moreover, some of the studies are mostly on the customers and their green practices (Han et al. 2010; Hu et al. 2010), whereas, Griskevicius et al. (2010) observed that the attitude of hotel customers towards green product/services are often times not influenced by their purchasing attitude. Goldstein et al. (2008) observed that while some guests believe the protection of the environment should not be their concern, some feels there is existence of trade-off between their social benefits at the long-run, and individual needs in the short-run. The study stressed further that some guest thinks about what would be their reward if their eco-friendly practices contribute to the reduction of the hotel operation cost. Thus, there is possibility of having more involvement of the customers in the green practices if they are aware of their benefits or they will be assisted in achievement of some personal goals.

Therefore, it becomes imperative to investigate the hotel customer's behavior changes from the view of whether perceived consumption values (PCVs) have influence on their attitude. This is in line with the argument of some studies who posited that the expected outcome of customers' staying in an eco-friendly hotel, and what they have to offer and stand to gain are determinant factors in intention to purchase green products which are yet to be fully explored (Barber, 2014; Lee et al. 2011). In this regard, the contributions of this paper are in two folds: first, to bridge the knowledge gap and clear up the understanding of the hotel guests perceived environmental concern (PEC), knowledge (PEK) and intention to visit green hotels (IVGHs) within the context of Nigeria; and secondly, the contribution to the theory with the use of social exchange theory (SET) to address the role of PCVs in the nexus between customers' behavior and intention to visit the green hotel. In reference to Emerson (1962), researchers are enabled to evaluate the multi-facet dimensions of benefits that the hotel guests considered to be achieved and sacrificed at every time they stay at green hotels through the use of SET, and also for the researcher to know other determinant

factor of the guest intention. The customers' process of making decisions as opined by Zeithaml (1988) are influenced by their personal values, as well as the knowledge and concern of a particular phenomenon by the hotel guest will influence their PCVs; owing to the fact that the study of Barber (2014) revealed a significant nexus between EC and intention of the guest to stay in a green hotel. Therefore, the guests' PEC and their PEK will be added as the antecedent to PCVs which will result to the green hotel visit intention by the consumers within the context of Nigeria, with the aim of providing an insightful understanding on the role of PCVs in the nexus between guests' PEC, PEK and the guest intention to stay in a green hotel, so that the managers can identify the marketing strategies that suits their guests, so as to enhance the guests' demand for eco-friendly products/services. Finally, this study theoretically demonstrated the effectiveness of SET in providing understanding on the mediating role of guests' PCVs in the relationship between guests' intention to visit green hotels and its antecedents. In addition, provide an insightful understanding for the stakeholder in hospitality industry in Nigeria on how the hotel guests' PEC and PEK can contribute to their intention to visit green hotels through their PCVs.

## **2. Review of Literature**

### *2.1 Social Exchange Theory (SET) and Tourism*

The conceptual framework in this study is based on social exchange theory (SET). SET was initially developed to investigate human behavior (Homans, 1958). Subsequently, the theory was applied to examine organizational behavior (Blau, 1964; Emerson, 1962). The social exchange was described in the literature as "as the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons" (Homans, 1961). The notion that exchanges are not restricted to materials goods, but in addition to include symbolic value was essentially introduced in the description of social exchange by Homan (Cropanzano & Mitchell, 2005). The SET according to Ward and Berno (2011) and Lee et al. (2014) is mainly focused on the perception of the relative costs and benefit of the nexus, as well as the impacts on a satisfactory relationship. Therefore, Tam et al. (2013) opined that "a positive difference obtained by subtracting costs from benefits perceived by residents will likely lead to their positive attitude towards tourism development, while a negative difference indicates otherwise". Meanwhile, Kelley and Thibaut (1978) opined a possibility of downside of the exchange which could be in form of money, energy and time, while Emerson (1976) believed the reward could be in form of services, goods, information or status.

In reference to tourism perspective, it was proposed in the SET that individuals' attitude in relation to tourism and the attendant support for its development could be influenced by the outcomes of tourism assessment on the community (Ozel & Kozak, 2017). Vong (2008) and Weaver & Lawton (2013) argued that people who are conscious of socio-economic, environmental, and cultural effect of tourism are more favorably disposed towards tourists. Owing to the focus of SET on exchange between two individuals, it is suitable for explaining resident attitudes towards tourism (Homans, 1961). Differently, it was observed

that the exchange might not be only tangible things but also intangible elements like happiness, prestige, and anger (Homans, 1958). Meanwhile, in reference to tourism, satisfaction seems to be the most preferred outcome of an exchange, which is solely intangible for both host and tourists (Ozel & Kozak, 2017). The examination of tourism in reference to the development of tourism, and its expected rewards and costs was argued by Ap (1992). The study modeled resident attitude as a cost-benefit analysis, while it was also suggested that the effects of tourism are perceived as positive when the resources exchange increases, otherwise, it turned out to be negative when the resources is low (Rockey and Lankford, 2012).

SET has been utilized in several studies for understanding various aspects of tourism-host relationships (Burns & Fridman, 2011; Chuang, 2010; Nunkoo et al. 2013; Ozel & Kozak, 2017; Schofield, 2011; Siu, Lee, & Leung, 2013). Meanwhile, in this study, the attitude of individual in the SET is considered to be environmental concern and knowledge which are explained in the SET that could affect the expectation of both the hotel management and the guest in terms of what they stand to gain if they participate in the visiting of green hotel. The benefit in the SET is what this study considers to be perceived consumption values. In the context of Nigeria, studies are scant, thus this study aims to explore this aspect to provide more understanding on how the green hotel can be developed and sustained in Nigeria.

## *2.2 Hypotheses Development*

### *2.2.1 Perceived environmental knowledge (PEK), Perceived environmental concern (PEC), and intention to visit green hotels: The Nexus*

Some studies on consumer research considered PEK as one of the significant factors that impact the stages in the process of decision-making, as well as the manner consumer assess the goods and services in the market (Ostergarrd & Bode, 2016; Wang et al. 2018). Environmental knowledge according to Ahmad and Thyagaraj (2015) was described as the ability of individual to recognize the environmental concepts, symbols, and behavior that are linked with pro-environmental goods and services. Similarly, significance of environmental concern (EC) is on increase in consumer studies, as Caruna (2007) observed that customers intend to pay more for ethical and eco-friendly goods. It was then proposed by Paul et al. (2016) that in the study of consumer-behavioral intention, EC should be added to enable comprehensive understanding of consumers' green purchase intentions, owing to the fact that the studies explored this aspect were scanty. Dunlap & Jones (2002, p. 485) described environmental concerns as "the degree to which individuals are more aware of the environmental problems as well as supporting all efforts to solve it". This description was corroborated by Fujii (2006) who opined that EC induces "a sense of responsibility to perform a behavior which in turn activates a personal norm or moral obligation to perform the behavior". In other words, EC would activate people's norm to pro-environmental behavior or pro-environmental intent (Hou & Wu, 2020). Kim & Choi (2005) opined that attitudes are gradually formed and matured which eventually become significant determinants that will compel individual to commit to eco-friendly behavior. The study stressed further that individual level in respect of environmental issues is confirmed to be a significant predictor of environmentally conscious behavior, such as waste recycling, and

purchase behavior. It is believed that consumers with a stronger environmental concern are more tends to purchase eco-friendly product than those who are less environmentally less concerned. Chen & Chang (2012) described green purchase intention as the “likelihood that a consumer would buy a particular product due to his/her environmental needs”. In view of this, Millar & Baloglu (2011) observed that the decision about a certain product is being made by consumer based on the attributes of the product/services in general.

In the recent time, there has been an increase in the studies that regards consumers’ green purchase (Chen & Tung, 2014; Eid, Agog, & Shehawy, 2020; Hou & Wu, 2020; Nimri et al. 2020; Ozed & Kozak, 2017). These studies developed a theoretical framework based on theory of planned behavior (TPB) to explore the consumers’ attitude and behavior in respect to green hotels visit intention and revealed attitudes and behavior to be an important factor. In addition, a positive and direct impact of environmental concern on consumer intention to purchase green product was demonstrated by Hartmann & Apaolaza-Ibanez (2012), while Paul et al. (2016) established that consumers’ attitude to green hotels is positively impacted by environmental concerns. Similar finding was demonstrated in the recent study by Hou & Wu (2020), Demir, Rjoub, & Yesitas (2021), and Yan & Chai (2021) that showed environmental concerns to significantly affect consumer intention to stay in green hotel in China. Meanwhile, the study of Demir, Rjoub, & Yesitas (2021) failed to establish a significant effect of consumers’ environment knowledge on intention to visit green hotel in North Cyprus. Based on the extant literature, it is evident that most of the studies reviewed demonstrated significant relationship between PEC, PEK and consumer relationship with green purchase. Meanwhile, the literature in the context of Nigeria is scant, which could possibly exhibit different outcomes based on the geographic and economic differences. Therefore, we hypothesized the following:

- **H<sub>1</sub>:** There is a direct relationship between perceived environmental knowledge and intention to visit green hotels.
- **H<sub>2</sub>:** There is a direct relationship between perceived environmental concern and intention to visit green hotels.

#### 2.2.2 Environmental knowledge, environmental concern, perceived consumption value and intention of tourist to visit green hotels

Moreover, consumption values according to Hanninen & Karjaluoto (2017) are the comprehensive evaluation of the products/services utility by consumers subsequent to their purchase and use of the product/service. Khan & Moshin (2017) observed that benefits to be accrued form a product/service is the yardstick used by consumer for assessment when choosing a product/services. The perception of the consumer on the product/service is very important to their process of decision-making (Fang et al. 2016). In respect of the hotel industry, consumption relies on several aspects like quality of rooms and meals, as well as the hotel environment. In essence, consumption values could be tangible or intangible and could be different from individuals. Therefore, this study adopted the measure of consumption values from four dimensions as proposed by Sweeney & Soutar (2001). The dimensions are functional value quality, functional value price, emotional value, and social

value. These values were considered in the literature to be significant to consumers' decision-making (Azam et al. 2017; Han & Hyun, 2018; Wang et al. 2018). Functional value quality is seen in form of product/services utilitarian, physical, and functional performance, while functional value price is when for instance consumer perceived some services being rendered in green hotel is worth paying for (Demir et al., 2021; Han & Hyun, 2018; Yan & Chai, 2021). As for the emotional value, Khan & Mohsin (2017) described it as the utility acquired on product/services which arose affective feelings like excitement, security, and comfort. Meanwhile, Jiang & Kim (2015) described social value as when in the process of choosing green hotels, the consumers think his/her social group would have good rating of them based on their choice.

Several studies have explored the environmental behavior as the antecedents of addressing environmentally responsible issues, as well as the assessment of the consumption values (Azam et al. 2017; Lieflander et al. 2015; Wang et al. 2018). For instance, a positive and significant influence of EK was found on consumers' perceived values in the study of Azam et al. (2017). This finding corroborated the study of Latif et al. (2016) who established positive influence of EK on the instillation of perceived values about green behavior; and the study of Suki (2015) who concluded that EK significantly drives consumption value for eco-friendly products. A recent study by Wang et al. (2018) also found the significant impact of EK on consumption value which in turn affects consumer visiting intentions. In addition, Schultz (2000) and Stern et al. (1999) found a relationship between EC and fundamental's beliefs or values. The study of Demir et al. (2021) utilized the three dimensions of perceived consumption values and found environmental knowledge and concern to have a positive and significant effect on the three dimensions. These finding has been demonstrated in some studies and concludes that people with adequate understanding and concern about environment protection actions usually tends towards having positive feelings towards green products and their willingness to pay for green products/services (Demir et al., 2021; Jiang & Kim, 2015; Namkung & Jang, 2017). It is evident from the literature reviewed that guest that are concerned and has understanding of environment are likely to afford consumption values than guest with less knowledge and concern, but studies within the context of Nigeria is scant. Hence, it becomes imperative to investigate the scenario in the context of Nigeria. Thus, we proposed in this study that:

- **H<sub>3</sub>:** There is a direct relationship between perceived environmental knowledge and perceived consumption value.
- **H<sub>4</sub>:** There is a direct relationship between perceived environmental concern and perceived consumption value.
- **H<sub>5</sub>:** There is a direct relationship between perceived consumption value and guests' intention to visit green hotels.

### 2.2.3 Mediating Role of Perceived Consumption Values

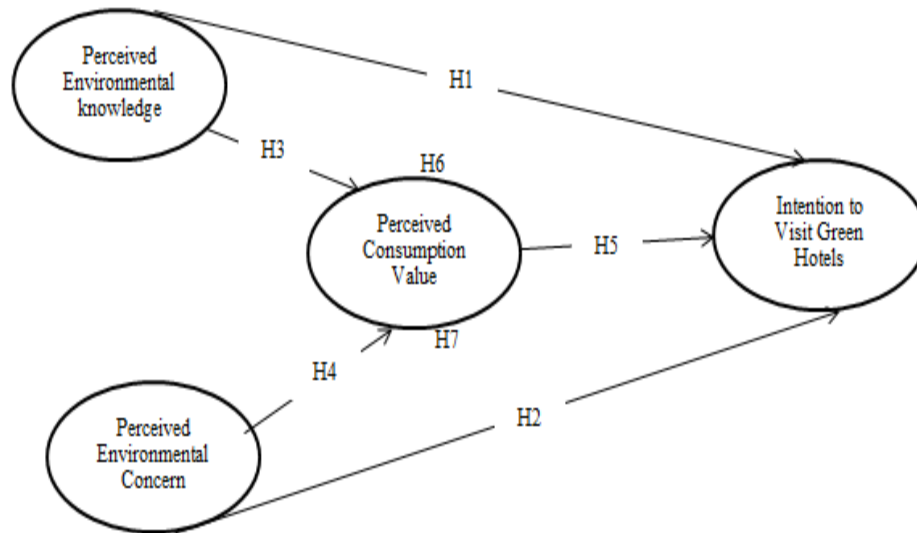
Cabuk et al. (2014) and Newton et al. (2015) opined that environmental knowledge and concerns may have impact on several environmentally-oriented behaviors and intentions. The relationship between EC, EK and pro-environmental behavior intentions has been



demonstrated in the literature (Arun et al. 2021; Azam et al. 2017; Demir et al., 2021; Hou & Wu, 2020; Lieflander et al. 2015; Suki, 2015; Wang et al. 2018). Meanwhile, Abeliotis et al. (2010) observed that even though there is increase on the people's knowledge and concern about environment, only few of them are willing to change attitude towards reduction of the effect on the environment. Anderson (2015) opined that "consumers are generally value-driven and they often make decisions based on their perceived values". The author stressed further that the more PCV, the more the consumer intends to make the decision. In relation to hotel customers, it is expected that customer that is concerned about deteriorating environment and also has sufficient knowledge is more likely to purchase green product like visiting green hotel, not because the consumer EK or EC have a direct effect on such behavior but because of their conviction on the consumption value specific to pro-environmental behavior (Pagiaslis and Krontalis, 2014). This position was evident in the study of Demir et al. (2021) and Wang et al. (2018) who found the mediating effect of PCV in the relationship between EK, EC and intentions to visit green hotels to be significant. In view of these, this study hypothesized the following:

- **H<sub>6</sub>:** Perceived consumption value mediates the relationship between perceived environmental knowledge and intention to visit green hotels.
- **H<sub>7</sub>:** Perceived consumption value mediates the relationship between perceived environmental concern and intention to visit green hotels.

The graphical representation of the study hypotheses is presented in Figure 1. The model indicates the proposition of PCVs as a mediator variable in the relationship between PEK and intention to visit green hotels in one hand, and between PEC and intention to visit green hotels on the other hand. This is with the view of fully explaining the antecedents of perceived consumption values towards guests' intention to visit green hotels. The model presents a causal statement in reference to the literature that suggested establishment of causal linkages between constructs (Bollen & Pearl, 2013; Pearl, 2014). These authors proposed that in social science research, demonstration of causality requires the establishment of the mechanisms where an independent variable will be related to dependent variable. In doing that, the linkage between the variables is fully accounted for by these causal mechanisms. This is with the aim of developing a strong foundation for causal statements.



**Figure 1: Research Framework**

### 3. Research Methodology

The minimum sample size required for our empirical study is expected to be determined, and in doing so, Cochran’s (1977) sample size determination formula was adopted, which is helpful when the study population is unknown, or unavailable (Bartlett et al., 2001). Hence, 385 sample size was found to be appropriate minimum sample size. Meanwhile, 401 sample size was used in our study which is more than the estimated minimum sample size (The details of respondent’s information and sample collection methods are presented in the scales and sample section).

Structured-questionnaire was adopted in this study as the instrument for data collection. For the data analysis, structural equation modeling (SEM) was employed through the partial least square (PLS) method owing to the potential of this method for building on techniques that accommodate the non-normality distribution of the data (Kock, 2016). In doing so, WarpPLS (7.0) was employed (Kock, 2020). An extension set of outputs were provided in this software which we utilized in a comprehensive evaluation of our measurement model with the view of ensuring that the estimates are not an artificial output of psychometrically biased assessment.

#### 3.1 Measurement of Items and Sample

The constructs in this study model were tested using previous tested and validated scales. Our study examined perceived environmental knowledge (PEK) and environmental concern (PEC) through the scale developed by Wong & Yeh (2009) using 3 and 7 items respectively. For this study, the measure has a Cronbach’s alpha score of 0.873 and 0.878

respectively. Similarly, PCVs was measured using Wang et al. (2018) PCVs scale measured from four dimensions (quality value, price, emotion, and social) with 15 items in all and the Cronbach's alpha for this measure in this study was 0.940. The guests' green hotels visit intention was measured with 3 items adapted from Jim & Kim (2015). It is worthy to note that, all the items utilized in this study were measured using 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The information on measurement factor structure and the test of the study hypotheses were provided by the PLS model, which the details will be given later. Meanwhile, the generally accepted guidelines for an appropriate factor model were met by the study measures. The measures evaluating their perceived environmental knowledge and concern towards consumption values and the implication on guests' intention to visit green hotels were completed by the respondents.

The sample for this study came from 45 randomly selected four- and five-star hotels in the city of Lagos, Nigeria. The names and location of the hotels were extracted from the directory of hotels in Lagos, Nigeria. City of Lagos was selected based on its status as center of excellence and business capital of Nigeria where there is large concentration of four- and five-star hotels. Each of the randomly selected hotels was visited to explain the purpose of the study, as well as seeking their consent in distributing the questionnaires to their guests. The target respondents in this study are the hotel guests. Introduction letter detailing the purpose of the study and seeking their consent was first sent to the hotels, before a follow up to provide more clarification on the survey instruction, especially anonymity and voluntary nature of the survey, while a secure drop box was provided for the returns completed surveys. The retrieved survey shows response rate of 89.11% (401 survey distributed and 450 were retrieved). In order to address the response method and non-response biases, the approach suggested by Abraham et al. (2009) was used and the outcomes suggested an absence of biases.

#### **4. Data Analysis**

##### *4.1 Descriptive Statistics*

The descriptive statistics of the respondents indicates that 60.5% are male while 39.5% are female which indicates male dominance of the survey. In respect of the age, about 39.2% and 30.6% of the respondents are within the age group of 35-44 years old and 45-54 years old respectively, while their level of education showed that 59.5% possessed Diploma, while 42% are bachelor's degree holder. Moreover, most of the guests have between 2-3 persons in the family, 30.8% have full-time jobs, while 29% were self-employed.

##### *4.2 Assessment of Measurement Model*

The outcomes of a number of measurement model assessment tests are presented in this section. Nunnally and Berstein (1994) opined that these tests are essential, mainly to display the psychometrical soundness of the measurement model of our study. In other words, it is to show that errors that could occur from measurement were kept at an acceptably low levels, also that the respondents understood questions items in the same way that other respondents and the authors did, as well as to ensure that all latent variables

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measured are distinct constructs. The benefit of these is to ensure that the main results that will be discussed in the next section are devoid of error measurement model. The loadings, cross-loadings and weights corresponding to the variables and their respective indicators that were obtained through a confirmatory factor analysis in line with previous studies are presented in Table 1 (Kline, 2015; Kock, 2014). The loadings are shaded cells in Table 1, while the *p* values associated with loadings and weights are also shown in the table.

**Table 1: Assessment of Model Measurements**

	Loads and cross-loadings.				P (Lds)	Wts	P (Wts)	
	PEC	PEK	PCV	ITV				
Perceived Environmental Concerns	PEC1	.792	-.032	.025	-.032	<.001	.195	<.001
	PEC2	.734	-.058	.129	-.110	<.001	.181	<.001
	PEC3	.831	-.132	-.237	.185	<.001	.204	<.001
	PEC4	.759	-.028	.135	.032	<.001	.187	<.001
	PEC5	.788	.016	-.262	.243	<.001	.194	<.001
	PEC6	.796	.052	-.025	-.020	<.001	.196	<.001
	PEC7	.612	.237	.337	-.404	<.001	.151	.001
Perceived Environmental Knowledge	PEK1	.020	.910	.035	.010	<.001	.380	<.001
	PEK2	-.019	.865	-.034	-.043	<.001	.361	<.001
	PEK3	-.002	.905	-.002	.031	<.001	.378	<.001
Perceived Consumption Values	PVC1	.131	.278	.740	.012	<.001	.090	.035
	PVC2	.043	.086	.564	-.399	<.001	.069	.084
	PVC3	.221	-.025	.783	-.003	<.001	.095	.027
	PVC4	.085	-.149	.719	-.204	<.001	.087	.039
	PVC5	-.088	-.114	.837	.041	<.001	.102	.020
	PVC6	-.093	-.083	.835	.036	<.001	.101	.020
	PVC7	-.138	-.151	.864	.093	<.001	.105	.017
	PVC8	-.188	-.201	.766	.068	<.001	.093	.030
	PVC9	.195	-.032	.746	.013	<.001	.091	.034
	PVC10	.040	.122	.785	-.043	<.001	.095	.027
	PVC11	.035	.029	.769	-.099	<.001	.093	.030
	PVC12	.073	-.024	.693	-.127	<.001	.084	.045
	PVC13	.126	-.011	.655	.232	<.001	.080	.054
	PVC14	-.071	.086	.612	.204	<.001	.074	.067
	PVC15	-.345	.292	.682	.116	<.001	.083	.048
Intention To Visit	ITV1	.055	-.036	.026	.912	<.001	.354	<.001
	ITV2	-.018	.013	-.007	.951	<.001	.369	<.001
	ITV3	-.036	.023	-.019	.918	<.001	.356	<.001

Note: Latent variables: perceived environmental concern (PEC), perceived environmental knowledge (PEK), perceived consumption values (PCV), intention to visit (ITV); Loadings are shown in shaded cells.

According to Hair et al. (2016) and Kock (2014), if the loadings of particular constructs are  $\geq 0.5$  and associated *p* value was found to be  $\leq 0.05$ , such measurement is considered to have an acceptable convergent validity. In line with these criteria, this study confirms

the acceptable convergent validity of our measurement. In addition, the indicator weights are being produced in PLS-SEM analysis, which are proportional to loadings but of lower magnitude, the convergent validity of the measurement is also augmented with the weights/values if the associated  $p$  values are  $\leq 0.05$  (Kock, 2014). Moreover, the square roots of the AVE along the diagonal (bold) as presented in Table 2 shows the correlation among the latent variables. According to Fornel & Larcker (1981) and Kock (2014), when the square root of AVE presented in the diagonal is greater than any of the correlation value involving such latent variable, such measurement is considered to meet the acceptable discriminant validity threshold. In case of this present study, this criterion is satisfied as the values on the diagonal (bold) are greater than any of the values above or below them, this indicates acceptable discriminant validity of the study measurement.

**Table 2: Latent Variable Correlations and Square Roots of AVEs**

	PEC	PEK	PCV	ITV
Environmental concern (PEC)	<b>.762</b>	.702	.707	.563
Perceived environmental knowledge (PEK)	.702	<b>.893</b>	.692	.552
Perceived consumption values (PCV)	.707	.692	<b>.741</b>	.630
Intention to visit (ITV)	.563	.552	.630	<b>.927</b>

The various latent variable coefficients are presented in Table 3. These coefficients enable us to evaluate reliability, collinearity, common method bias (CMB), predictive validity ( $Q^2$ ), and normality in respect of this study model measurement. The composite reliability and Cronbach's alpha are utilized for the reliability assessment, while variance inflation factor (VIF) was used to assess collinearity and CMB.  $Q^2$  coefficients were used to assess predictive validity. Lastly, the normality of this study measurement was assessed using Jarque-Bera and robust Jarque-Bera tests which developed on measures of skewness and excess kurtosis. It was suggested Fornell & Larcker (1981), Kock (2014), Nunnally & Bernstein (1994) that a measurement model is deemed to have acceptable reliability if both Cronbach's alpha and composite reliability are all  $\geq 0.7$ . In addition, the measurement model is deemed to be free from both vertical and lateral collinearity, as well as from CMB if the full collinearity VIF coefficients are  $\leq 3.3$  (Kock, 2015; Kock and Lynn, 2012). The results presented in Table 3 suggest that all these criteria were met in the measurement model.

Specifically, in respect of the CMB, the study of Kock (2015) demonstrated sensitivity of the full collinearity VIF coefficients to pathological common variation across latent variables in methodological contexts which is similar to this present study. This implies that the identification of CMB in a model that nevertheless meets the acceptable convergent and discriminant validity evaluation criteria in line with confirmatory factor analysis was made possible owing to the sensitivity, as the case in this study. The most often used threshold for FVIF according to Kock (2015) and Kock & Lynn (2012) is less or equals to 3.3 which is considered to be the most conservative, hence the one utilized in the present study. Moreover, the Stone-Geisser ( $Q^2$ ) coefficients developed by Geisser (1974) and Stone (1974) are utilized for the assessment of predictive validity (Kock, 2015). This

coefficient is only available for endogenous latent variables. Kock (2015) suggested that a  $Q^2$  coefficient that is  $> 0$  indicate the acceptable predictive validity of the measurement model, and from the results in Table 3, the model in this study is deemed to meet this criterion. Finally, two tests of normality that utilize skewness and excess kurtosis value as presented in Table 3 suggest that our data is multivariate non-normal. Similar tests using classic Jarque-Bera test (Bera & Jarque, 1981) and robust Jarque-Bera (Gel & Gastwirth, 2008) which allows for conservative evaluation of non-normality (Kock, 2015) indicate that our indicators are non-normally distributed. The results from these tests justified the utilization of PLS-SEM.

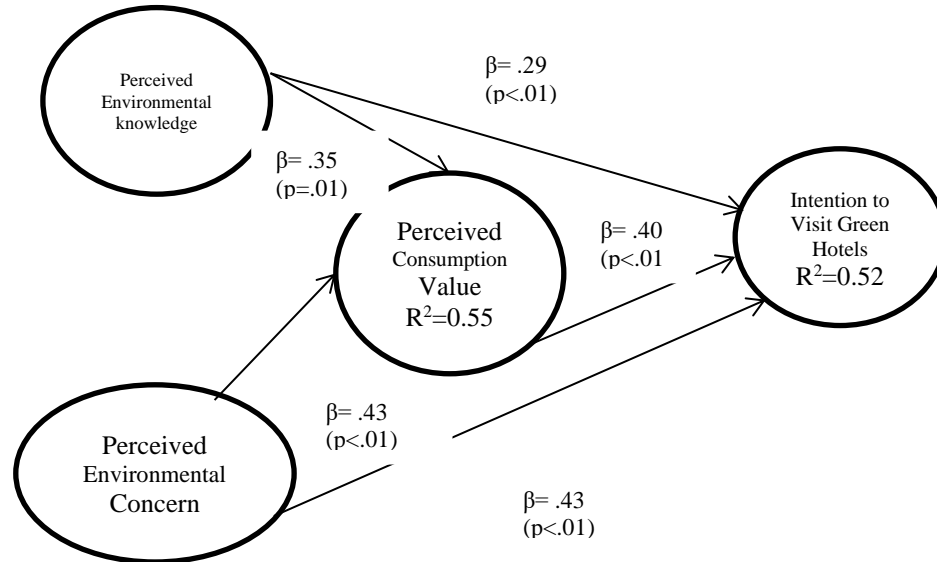
**Table 3: Latent Variable Coefficients**

Measure	PEC	PEK	PCV	IVGH
Composite reliability	.906	.922	.948	.948
Cronbach's alpha	.878	.873	.940	.918
Average variance extracted	.580	.798	.549	.859
Full collinearity VIF	3.243	3.098	2.518	1.754
$Q^2$			.550	.516
Skewness	.642	.585	.757	.188
Excess Kurtosis	.001	.058	.405	-.288
Normal: Jarque-Bera test	No	No	No	Yes
Normal: Robust Jarque-Bera test	No	No	No	Yes

Note: Latent variables: perceived environmental concern (PEC), perceived environmental knowledge (PEK), perceived consumption values (PCV), intention to visit green hotel (IVGH).

#### 4. Findings

The examination of the statistical significance and relevance of the path coefficients for the hypothesized relationships in this study was conducted to validate or otherwise. The statistical significance of the hypotheses is presented in Table 4. The results reveal that hypothesized direct link between perceived environmental knowledge and intention to visit green hotels on one hand ( $\beta = .294, p < .001$ ), and the relationship between PEC and IVGHs on the other hand are positive and significant ( $\beta = .099, p = .023$ ), therefore, H<sub>1</sub> and H<sub>2</sub> are supported and concludes that PEK and PEC significantly and positively influence IVGHs at less than 1% and 5% confidence level respectively. Similarly, the influence of PEK ( $\beta = .352, p < .001$ ) and PEC on PCVs ( $\beta = .428, p < .001$ ) hypothesized in H<sub>3</sub> and H<sub>4</sub> were found to be positive and statistically significant. Thus, H<sub>3</sub> and H<sub>4</sub> were supported in this study and conclude that the guests' PCVs towards pro-environmental behavior is being positively influenced by the guests' PEK and PEC at less than 1% confidence level respectively. Moreover, the direct relationship between PCVs with IVGHs (H<sub>5</sub>) was found to be positive and significant ( $\beta = .404, p < .001$ ). This implies that a change in the PCVs of the guests on eco-friendly product/services will positively influence their IVGHs. Thus, H<sub>5</sub> is supported. The mediating effect of PCVs in the relationship between PEK and PEC and IVGHs was examined. The result revealed that the relationship between PEK and IVGHs was partially mediated by PCVs ( $\beta = .142, p < .001$ ).



Similarly, PCVs partially mediate the relationship between PEC and IVGHs. Therefore,  $H_6$  and  $H_7$  are supported and conclude the significant mediating effect of PCVs in the model. Moreover, from the model testing results presented in Figure 2, it showed that PEK and PEC have about 55% explanation variation in explaining PCVs which is substantial (Cohen 1988), while PEK, PEC, and PCVs have about 52% explanation variation in explaining IVGHs which is deemed to be substantial as well (Cohen, 1988).

**Figure 2: Model Testing Results**

**Table 4: Hypotheses Testing**

Hypothesis	Interaction	Coefficients	Std. Errors	P values	Decision
H <sub>1</sub>	PEK → ITV	.294	.048	<.001	Supported
H <sub>2</sub>	PEC → ITV	.099	.049	.023	Supported
H <sub>3</sub>	PEK → PCV	.352	.048	<.001	Supported
H <sub>4</sub>	PEC → PVC	.428	.047	<.001	Supported
H <sub>5</sub>	PCV → ITV	.404	.047	<.001	Supported
H <sub>6</sub>	PEK → PCV → ITV	.142	.035	<.001	Partial Mediation
H <sub>7</sub>	PEC → PCV → ITV	.173	.035	<.001	Partial Mediation

Note: Latent variables: perceived environmental concern (PEC), perceived environmental knowledge (PEK), perceived consumption values (PCV), intention to visit (ITV).

## 5. Discussion and Conclusion

This study attempts to investigate the determinants of guests' intention to visit green hotels with the mediating effects of PCVs in the context of Nigeria hospitality industry. Findings from this study indicated that the SET utilized demonstrates a favorable level of prediction power for guests' intention to visit green hotels. The findings from this study revealed that PEK, PCE, and PCVs have a positive and direct influence on the guests' IVGHs. These results are congruent with similar finding from Eid, Agog, & Shehawy (2020) and Wang et al. (2018) who demonstrated the significant and positive influence of environmental knowledge on guests' intention to visit green hotels; those that found significant and positive impact of environmental concern on guests' attitude to green hotels (Demir et al., 2021; Hartmann & Apaolaza-Ibanez, 2012; Hou & Wu, 2020; Nimri et al. 2020; Ozel & Kozak, 2017; Paul et al. 2016; Yan & Chai, 2021); and, the studies of Azam et al. (2017), Han & Hyun (2018), Lieflander et al. (2015), and Wang et al. (2018) that found the positive and significant effect of consumption values on guests' intention to visit green hotels. Though, Demir et al. (2021) found the significant effect of environmental concern on guest intention to visit green hotels, the study failed to establish the significance of environmental knowledge. These results provide more understanding that environmental awareness and adequate knowledge are important antecedents to making a decision on visiting green hotels. In addition, the significant of perceived consumption values influence on guests' intention towards green hotels is consistent with SET. For instance, the proposition of SET according to Ward & Borno (2011) that the views of this theory are on perception of the relative costs and benefit of the nexus and their effects for a satisfactory relationship is valid owing to the findings from this study. Similarly, in reference to SET, Lee et al. (2014) suggested that the engagement of individuals in an exchange relationship in such a way that individuals' expectation in the relationship in respect of the benefit from the relationship with the hope of satisfaction maximizing is the focus of SET, and it deemed valid from this study result. This corroborate the position of Weaver & Lawton (2013) and Demir et al. (2021) who opined that people who considered socio-economic, environment, and cultural effect of tourism are more favorably disposed to tourism.

In respect of the relationship between perceived environmental knowledge and concerns and consumption values, the findings from this study confirm a significant relationship. This is consistent with the studies of Azam et al. (2017), Demir et al. (2021), Latif et al. (2016), Suki (2015), and Wang et al. (2018) who demonstrated in their respective studies that the guests' knowledge on environment will influence their perspective on the quality value, price value, emotional value or social value that will be accruing from their pro-environmental behavior. Similarly, the significant relationship between environmental concern and consumption value is consistent with the studies of Demir et al. (2021), Jiang & Kim (2015), and Namkung & Jang (2017) who concludes that environmental conscious guests will have a positive disposition to the consumption values.

The findings from this study supports the expectation that hotel guests that are environmentally conscious and with adequate knowledge of environment likely to visit green hotels, not because of the impact of their knowledge and concerns for the environment but their conviction on the consumption value specific to pro-environmental



behavior. This is evident in this study finding that revealed the significant mediating effect of PCVs in the relationship between PEK and IVGHs in one hand, and between PEC and guests' IVGHs on the other hand. The findings are congruent with the studies of Cabuk et al. (2014); Demir et al. (2021), and Newton et al. (2015) that established mediating effect of PCVs in the relationship between PEK and guest attitude towards green hotels; and, the studies of Demir et al. (2021), Pagiaslis & Krontalis (2014) and Wang et al. (2018) that revealed the significant mediating effect of PCVs in the relationship between PEC and guests' attitude towards green hotels. Meanwhile, the disaggregated consumption values were used in the study of Demir et al. (2021), and the study demonstrated that only functional value and emotional value partially mediates the relationship between guest IVGHs and its antecedents. The positive and significant coefficients indicates that the guests that are environmentally conscious are likely to visit an eco-friendly hotel the more based on what they perceived to be given and getting in returns and this is as well significantly influenced by their level of environmental knowledge and concern. This result implies that PEK and PEC have a direct and indirect impact on the guests' attitude towards green hotels. It was also demonstrated in this study that the explanatory power of both PEK, PEC and PCVs are substantial in explaining guests' attitude towards green hotels, as well as a substantial explanatory power of environmental knowledge and concerns was revealed on consumption values.

### *5.1 The Study Implications*

This study makes significant contribution to academic knowledge by investigating the determinant factors on green marketing and the contribution to literature in hospitality context are in three ways: first, in order to examine the mediating effect of consumption value, SET was expanded to accommodate consumption value to form a theoretical framework and deemed to be efficient in explaining factors influencing guests' intention towards pro-environmental behavior (visiting green hotels). The main advantage of this study conceptual framework is its sufficiency and comprehensiveness. In addition, it is a widely utilizable theory in variety of tourism studies. Furthermore, the model in this study can be applied in diverse consumption situation relating to eco-friendly consumption, provides a deeper understanding of consumers' decision-making process in respect of pro-environmental behavior. It is worthy to note the effectiveness, applicability, and comprehensiveness of the suggested model as its theoretical values. This study found the proposed framework more effective in explaining green visiting behaviors in relation to consumption values. Secondly, this study proved the validity of consumption values on the determinant factors of guests' behavior towards green purchase. This can assist researchers to further examine other variables and process related to green consumption. While the significance of consumption values is considered important in the tourism literature, few studies have attempted to investigate the influence on green purchase, as well as its result on understanding guests' intention to visit green hotels. This present study addresses this gap and develops a nexus between consumption values and guests' pro-environmental behavior, as well as its mediating effect in the relationship between determinants factors of guests' pro-environmental behavior to provide better understanding on the role of these

components in the green marketing. In view of these, a proper and effective communication of green initiatives adopted by the hotels should be emphasized by the hotel marketers through various communication channels. The information on the marketing practices and its importance to the betterment of environment should as well be communicated to the guests, specifically in Nigeria where the green practices are still at gestation stage.

Based on the findings, the study has a theoretical implication. This present study theoretical demonstrated the effectiveness of SET in providing understanding on the mediating role of guests' PCVs in the relationship between guest' intention to visit green hotels and its antecedents. In addition, some practical implications are highlighted. First, the hotel managers should as a matter of urgency acquire more understanding on the main factors that influence the behavior of guests' in respect of making decision on green purchase, as this will assist them in formulating an efficient program that would encourage guests' intention to visit green hotels. In line with this, the hotel managers should develop ways of enhancing the guests' environmental concern and knowledge like promotion of green campaigns which in the long-term will no doubt contribute to developing a favorable attitude to green consumption. In addition, design and implementation of environmental education schemes campaigns which will be targeted at the general public will no doubt improve their environmental knowledge. In addition, the consumption values of the guests should be enhanced, as this will encourage the guests to visit green hotels once the emotional value, quality, price, and social values are guaranteed. The quality, emotional feelings and the rest should be distinct from the conventional hotels. These enable them to be more committed and attracted to the pro-environmental behavior towards green purchase.

#### *5.2 Limitations and Direction Fir Future Studies*

Though, the present study makes significant contribution to the literature, but is not devoid of limitations. First is the sample survey which considered only Lagos state in Nigeria out of the 36 states including Federal Capital Territory (FCT), and could limit the generalization of findings from this study. Thus, future studies should expand the scope to cover more states in Nigeria, and possibly compare the results with countries of similar characteristics like Nigeria. Second, the visiting intention was investigated in this study which according to Han & Yoon (2015) does not always translate to actual behavior. Therefore, guests; actual visiting should be examined in the future studies. This study considered consumption values as mediating values; other variables like green image would be interesting to investigate in future studies.

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### **REFERENCES**

Abeliotis, K., Koniari, C., & Sardianou, E. (2010). The profile of the green consumer in Greece. *International Journal of Consumer Studies*, 34(2), 153–160.

- Abraham, K. G., Helms, S., & Presser, S. (2009). How social processes distort measurement: The impact of survey nonresponse on estimates of volunteer work in the United States. *American Journal of Sociology*, *114*, 1129-1165.
- Ahmad, A., & Thyagaraj, K. S. (2015). Consumer's intention to purchase green brands: The roles of environmental concern, environmental knowledge and self-expressive benefits. *Current World Environment*, *10*(3), 879-889.
- Alzboun, N., Khawaldah, H., Backman, K., & Moore, D. (2016). The effect of sustainability practices on financial leakage in the hotel industry in Jordan. *Journal of Hospitality and Tourism Management*, *27*, 18-26.
- Anderson, B. A. (2015). Value-driven attentional priority is context specific. *Psychonomic Bulletin and Review*, *22*(3), 750-756.
- Ap, J. (1992). Residents' perceptions on tourism impacts. *Annals of Tourism Research*, *19*(4), 665-690.
- Arun, T. M., Kaur, P., Bresciani, S., & Dhir, A. (2021). What drives the adoption and consumption of green hotel products and services? A systematic literature review of past achievement and future promises. *Business Strategy and the Environment*, *2021*, 1-19.
- Azam, N. R. A. N., Rashid, B., & Zainol, N. A. (2017). Conceptualizing the influence of environmental knowledge on perceived value to green resort in Malaysia. *Journal of Tourism*, *2*(5), 1-17.
- Barber, N. A. (2014). Profiling the potential "green" hotel guest: Who are they and what do they want? *Journal of Hospitality & Tourism Research*, *38*(3), 361-387.
- Bartlett, J. E.; J. W., Kotrlik; and C. C. Higgins (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, *19*, 1, Spring 2001, 43-50.
- Batle, J., Orfila-Sintes, F., & Moon, C. J. (2018). Environmental management best practices: Towards social innovation. *International Journal of Hospitality Management*, *69*, 14-20.
- Bera, A. K., & Jarque, C. M. (1981). Efficient tests for normality, homoscedasticity and serial independence of regression residuals: Monte Carlo evidence. *Economics Letters*, *7*, 313-318.
- Blau, P. M. (1964). Exchange, and power in social life. New York: John Wiley & Sons.
- Bollen, K. A., & Pearl, J. (2013). Eight myths about causality and structural equation models. In *Handbook of causal analysis for social research* (pp. 301-328). New York, NY: Springer.
- Burns, P. M., & Fridman, D. (2011). Actors' perceptions of the newly designated South Downs National Park: Social exchange theory and framework analysis approach. *Tourism Planning & Development*, *8*(4), 447-465

- Çabuk, S., Tanrikulu, C., & Gelibolu, L. (2014). Understanding organic food consumption: Attitude as a mediator. *International Journal of Consumer Studies*, 38(4), 337–345.
- Caruana, R. (2007). A sociological perspective of consumer morality. *Journal of Consumer Behavior*, 5(2), 287-304.
- Chan, E. S. (2013). Managing green marketing: Hong Kong hotel managers' perspective. *International Journal of Hospitality Management*, 34, 442-461.
- Chang, L. H., Tsai, C. H., & Yeh, S. S. (2014). Evaluation of green hotel guests' behavioral intention. *Advances in hospitality and leisure* (pp. 75-89). Emerald Group Publishing Limited.
- Chang, L. H., Hsiao, Y. C., Nuryyev, G. and Huang, M. L. (2015). People's motivation, constraints and willingness to pay for green hotels. *European Journal of Tourism Research*, 9, 67-77.
- Chen, M. F. and Tung, P. J. (2014). Developing an extended theory of planned behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36, 221-230.
- Chen, Y.S. and C.H. Chang, (2012). Enhance green purchase intentions – the roles of green perceived value, green perceived risks, and green trust. *Management Decision*, 50(3), 502-520
- Choi, H.; Jang, J.; Kandampully, J. (2015). Application of the extended VBN theory to understand consumers' decisions about green hotels. *International Journal of Hospitality Management*, 51, 87–95.
- Choi, S.W., Jang, C. (2015). Managing green marketing: Hong Kong hotel managers' perspective. *International Journal of Hospitality Management*, 34, 442-461.
- Choi, H. C., & Murray, I. (2010). Resident attitudes toward sustainable community tourism. *Journal of Sustainable Tourism*, 18(4), 575–594.
- Chuang, S. T. (2010). Rural tourism: Perspectives from social exchange theory. *Social Behavior and Personality*, 38(10), 1313-1322.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York, NY: Psychology Press.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900.
- Demir, M., Rjoub, H., & Yesiltas, M. (2021). Environmental awareness and guests' intention to visit green hotels: The mediation role of consumption values. *PLOS ONE*, 16(5), e0248815.
- Dunlap, R., & Jones, R. (2002). Environmental concern: Conceptual and measurement issues. In R. Dunlap & W. Michelson (Eds.), *Handbook of environmental sociology* (pp. 482-542).
- Greenwood, E. (2008). A place to help save the Earth. [Online] Available at: <http://www.ecomall.com/homepage.htm> (July 21<sup>st</sup>, 2020).

- Eid, R., Agag, G., & Shehawy, Y. M. (2020). Understanding guests' intention to visit green hotels. *Journal of Hospitality & Tourism Research*.
- Emerson, R.M. (1962). Power dependence relations. *American Sociological Review*, 27 (1), 31-41.
- Esu, B. B. (2015). Transforming the Nigerian tourism industry through entrepreneurial Development. *African Journal of Business Management*, 9(15), 569-580.
- Fang, B., Ye, Q., Kucukusta, D., & Law, R. (2016). Analysis of the perceived value of online tourism reviews: Influence of readability and reviewer characteristics. *Tourism Management*, 52, 498–506.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(3), 39-50.
- Fujii, S., (2006). Environmental concern, attitude toward frugality, and ease of behavior as determinants of pro-environmental behavior intentions. *Journal of Environmental Psychology*, 26(4), 262-268.
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61, 101-107.
- Gel, Y. R., & Gastwirth, J. L. (2008). A robust modification of the Jarque–Bera test of normality. *Economics Letters*, 99(1), 30-32.
- Goldstein, N.J., Cialdini, R.B. and Griskvicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35(3), 472-482.
- Griskevicius, V., Tybur, J. M. and Van den Bergh, B. (2010). Going green to be seen: status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology*, 98(3), 392-404.
- Gunter, H. (2005). Following the LEEDer. *Hotel and Motel Management*, 220(21), 3-6.
- Hall, C. M., & Lew, A. (2009). *Understanding and Managing Tourism Impacts: An Integrated Approach*; Routledge: London, UK
- Hair, J., Anderson, R., Black, B., & Babin, B. (2016). *Multivariate data analysis*. Indianapolis, IN: Pearson Higher Education.
- Han, H., & Hyun, S. S. (2018). What influences water conservation and towel reuse practices of hotel guests? *Tourism Management*, 64, 87–97.
- Han, H., & Yoon, H. J. (2015). Hotel customers' environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism. *International Journal of Hospitality Management*, 45, 22-33.

- Han, H., Hsu, L. T. J., Lee, J. S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management*, 30(2), 345-355.
- Han, H.; Hsu, L.T.J.; Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourist Management*, 31, 325-334.
- Han, H.S., Hsu, L.T. and Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.
- Hänninen, N., & Karjaluoto, H. (2017). Environmental values and customer-perceived value in industrial supplier relationships. *Journal of Cleaner Production*, 156, 604-613.
- Hartmann, P., & Apaolaza-Ibanez, V. (2012). Consumer attitude and purchase intention to green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research*, 65(9), 1254-1263.
- Homans, G. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606.
- Homans, G. C. (1961). Social behavior and its elementary forms. New York: Harcourt, Brace and World.
- Hou, H., & Wu, H. (2020). Environmental Concern, Green Purchase Intention and Customers' Perceived Green Building Design. 26th Annual Pacific Rim Real Estate Society Conference Canberra, Australia 19<sup>th</sup>-22<sup>nd</sup> January, 2020.
- Hsiao, T. Y., Chuang, C. M., & Huang, L. (2018). The contents, determinants, and strategic procedure for implementing suitable green activities in star hotels. *International Journal of Hospitality Management*, 69, 1-13.
- Hu, H. H., Parsa, H. G., & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, 51(3), 344-362.
- Jiang, Y., & Kim, Y. (2015). Developing multi-dimensional green value. *International Journal of Contemporary Hospitality Management*, 27(2), 308-334
- Jiang, Y., & Kim, Y. (2015). Developing multi-dimensional green value: Extending social exchange theory to explore customers' purchase intention in green hotels-evidence from Korea. *International Journal of Contemporary Hospitality Management*, 27(2), 308-334.
- Jones, P. (2002). The Orchid Hotel. *Tourism & Hospitality Research*, 3(3), 277-277.
- Kang, T.; Stein, C. (2012). Establishing attributes of an environmental management system for green hotel evaluation. *International Journal of Hospitality Management*, 36, 197-208.
- Kelley, H. H., & Thibaut, J. W. (1978). Interpersonal relationships: A theory of interdependence. New York: John Wiley and Sons
- Khan, S. N., & Mohsin, M. (2017). The power of emotional value: Exploring the effects of values on green product consumer choice behavior. *Journal of Cleaner Production*, 150, 65-74.

- Kim, Y., & Choi, S. M. (2005). Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. *ACR North American Advances*, 32, 592-599.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Kock, N. (2014). Advanced mediating effects tests, multi-group analyses, and measurement model assessments in PLS-based SEM. *International Journal of E-Collaboration*, 10(1), 1-13.
- Kock, N. (2016). Non-normality propagation among latent variables and indicators in PLS-SEM simulations. *Journal of Modern Applied Statistical Methods*, 15, 299-315.
- Kock, N. (2020). *WarpPLS 7.0 user manual*. Laredo, TX: ScriptWarp Systems.
- Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13, 546-580.
- Krakovsky, M. (2008). Less wash, more dry. *Scientific American*, 299(5), 28-29.
- Latif, S. A., Omar, M. S., Bidi, Y. H., & Awang, Z. (2016). Creating pro-environmental residents: The role of environmental knowledge. *Asian Journal of Behavioral Studies*, 1(2), 13-22.
- Lee, J. J., Capella, M. L., Taylor, C. R., Luo, M. M., & Gabler, C. B. (2014). The financial impact of loyalty programs in the hotel industry: A social exchange theory perspective. *Journal of Business Research*, 67(10), 2139-2146.
- Lee, M., Han, H.S. and Willson, G. (2011). The role of expected outcomes in the formation of behavioral intentions in the green-hotel industry. *Journal of Travel & Tourism Marketing*, 28(4), 840-855.
- Lee, W.H.; Cheng, C.C. (2018). Less is more: A new insight for measuring service quality of green hotels. *International Journal of Hospitality Management*, 68, 32-40.
- Liefländer, A. K., Bogner, F. X., Kibbe, A., & Kaiser, F. G. (2015). Evaluating environmental knowledge dimension convergence to assess educational programme effectiveness. *International Journal of Science Education*, 37(4), 684-702.
- Maichum, K., Parichatnon, S., & Peng, K. C. (2016). Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability*, 8(10), 1077.
- Millar, M. and Baloglu, S., 2011. Hotel guests' preferences for green guest room attributes. *Cornell Hospitality Quarterly*, 52(3), pp.302-311.
- Mohd, S. N. (2015). Consumers' environmental behaviour towards staying at a green hotel: Moderation of green hotel knowledge. *Management of Environmental Quality*, 26(1), 103-117.

- Mousavi, S. A., Hoşkara, E., & Woosnam, K. M. (2017). Developing a Model for Sustainable Hotels in Northern Cyprus. *Sustainability*, 9(11), 1-25.
- Namkung, Y., & Jang, S. (2017). Are consumers willing to pay more for green practices at restaurants? *Journal of Hospitality and Tourism Research*, 41(3), 329–356.
- Newton, J. D., Tsarenko, Y., Ferraro, C., & Sands, S. (2015). Environmental concern and environmental purchase intentions: The mediating role of learning strategy. *Journal of Business Research*, 68(9), 1974–1981.
- Nezakati, H., Moghadas, S., Aziz, Y. A., Amidi, A., Sohrabinezhadtalemi, R., & Jusoh, Y. Y. (2015). Effect of Behavioral Intention toward Choosing Green Hotels in Malaysia-Preliminary Study. *Procedia-Social and Behavioral Sciences*, 172, 57-62.
- Nimri, R., Patiar, A., Kensbock, S., & Jin, X. (2020). Consumers' intention to stay in green hotels in Australia: Theorization and implications. *Journal of Hospitality & Tourism Research*, 44(1), 149-168.
- Nunkoo, R., Smith, S. L. J., & Ramkissoon, H. (2013). Residents' attitudes to tourism: A longitudinal study of 140 articles from 1984 to 2010. *Journal of Sustainable Tourism*, 21(1), 5–25.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York, NY: McGraw-Hill.
- Odugbesan, J. A., Ike, G., Olowu, G., & Adeleye, B. N. (2020). Investigating the causality between financial inclusion, financial development and sustainable development in Sub Saharan Africa economies: The mediating role of foreign direct investment. *Journal of Public Affairs*, e2569.
- Ostergaard, P., & Bode, M. (2016). Is Consumer Culture Theory research or realpolitik? A sociology of knowledge analysis of a scientific culture. *Journal of Consumer Behavior*, 15(5), 387–395.
- Özel, Ç. H., & Kozak, N. (2017). An exploratory study of resident perceptions toward the tourism industry in Cappadocia: a Social Exchange Theory approach. *Asia Pacific Journal of Tourism Research*, 22(3), 284-300.
- Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: Environmental concern, knowledge, and beliefs. *Psychology and Marketing*, 31(5), 335-348.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29(2), 123-134.
- Pearl, J. (2009). *Causality: Models, reasoning and inference* (2<sup>nd</sup> ed). Cambridge, England: Cambridge University Press.
- Pearl, J. (2014). Interpretation and identification of causal mediation. *Psychological Methods*, 19, 459-481.



- Rahman, I., Park, J. and Chi, C.G.Q. (2015). Consequences of ‘green washing’ consumers’ reactions to hotels’ green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054-1081.
- Rahman, I.; Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, 52, 107-116.
- Rockey, D. L. Jr., & Lankford, S. (2012). Attitudes of local residents to recreation and tourism development of Fredericksburg/ Spotsylvania: A case study. *E-Review of Tourism Research*, 10(1), 1–12.
- Schofield, P. (2011). City resident attitudes to proposed tourism development and its impacts on the community. *International Journal of Tourism Research*, 13(3), 218–233
- Schultz, P. W. (2000). New environmental theories: Empathizing with nature: The effects of Perspective taking on concern for environmental issues. *Journal of Social Issues*, 56(3), 391-406.
- Siu, G., Lee, L. Y. S., & Leung, D. (2013). Residents’ perceptions toward the “Chinese tourists’ wave” in Hong Kong: An exploratory study. *Asia Pacific Journal of Tourism Research*, 18(5), 446–463
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Research in Human Ecology*, 6(2), 81-97.
- Suki, N. M. (2015). Consumer environmental concern and green product purchase in Malaysia: Structural effects of consumption values. *Journal of Cleaner Production*, 30, 1–11.
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220
- Tam, F., Tsai, H., & McCain, S. C. (2013). Tourists’ and residents’ perceptions toward casino gaming development in Hong Kong. *Asia Pacific Journal of Tourism Research*, 18(4), 385–407
- UNWTO Tourism Highlights, (2015). Tourism Highlights. [Online] Available at: <http://www2.unwto.org/publication/unwto-annual-report> (January 29<sup>th</sup>, 2021).
- Vong, F. (2008). Influence of personal factors on Macau residents’ gaming impact perceptions. *Gaming Research & Review Journal*, 12(1/2), 15-28.
- Wang, J., Wang, S., Wang, Y., Li, J., & Zhao, D. (2018). Extending the theory of planned behavior to understand consumers’ intentions to visit green hotels in the Chinese context. *International Journal of Contemporary Hospitality Management*, 30(8), 2810-2825.
- Ward, C., & Berno, T.(2011). Beyond social exchange theory, attitudes toward tourists. *Annals of Tourism Research*, 38(4), 1556-1569.

- Weaver, D. B., & Lawton, L. J. (2013). Resident perceptions of a contentious tourism event. *Tourism Management, 37*, 165–175.
- Wong, J. Y., & Yeh, C. (2009). Tourist hesitation in destination decision making. *Annals of Tourism Research, 36*(1), 6-23.
- WTTC (2015). Economic Impact, Nigeria. World Travel and Tourism Council. [Online] Available at: <https://www.wttc.org/-/media/files/reports>. (November 15<sup>th</sup>, 2020).
- WTTC (2020). Economic Impact Reports. World Travel and Tourism Council. [Online] Available at: <https://wttc.org/Research/Economic-Impact> (May 31<sup>st</sup>, 2021).
- Yan, H., & Chai, H. (2021). Consumers' Intentions towards Green Hotels in China: An Empirical Study Based on Extended Norm Activation Model. *Sustainability, 13*(4), 2165.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2-22.
- Zhang, L., Chen, L., Wu, Z., Zhang, S., & Song, H. (2018). Investigating young consumers' purchasing intention of green housing in China. *Sustainability, 10*(4), 1044.