

RELIGIOSITY AND CONSUMER GREEN PURCHASE INTENTION IN ENUGU STATE NIGERIA: MODERATING EFFECT OF ENVIRONMENTAL CONCERN

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ABSTRACT

This study investigated religiosity and green purchase intention in Enugu State, Nigeria: The moderating effect of environmental concern. Specifically the study examined whether religiosity has a significant effect on consumers' green purchase intention in Enugu State, Nigeria; whether environmental concern has a significant effect on consumers' green purchase intention in Enugu State, Nigeria; and whether environmental concern moderates the relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria. A quantitative research design was conducted and survey questionnaire in Google Document was used for data collection from a population of 400 respondents selected from religious groups in Enugu State, Nigeria. Data collected from a sample of 384 respondents were analyzed using PLS AMOS 24.0 Structural Equation Modeling technique. Descriptive statistics was analyzed using tables, and frequencies aided by SPSS 22.0 version. This research resulted in findings that religiosity as well as environmental concern have significant effect on consumer green purchase intention, and environmental concern moderates the effect of religiosity on consumer green purchase intention. Hence, marketers especially those engaging in green products in Enugu State Nigeria need to pay important attention to the issues of sustainable consumption because high religiosity consumers with concern for the environment have high green purchase intentions.

KeyWords: Religiosity, Environmental Concern, Green Products, Consumer Purchase Intention.

INTRODUCTION

Following the increasing level of environmental challenges in the global scene, there has been degradation of the living ecosystem as well as dilapidation of the economic and social status of the people all over the World (Aslam, Razzaque, Arif, & Kahshif, 2022). Since countries of the world have continued to contend with climate change and environmental degradation, there has been an increasing emphasis on the adoption of sustainable and environmentally-friendly practices. In Nigeria, consumers

are becoming more conscious of the impact of their consumption behaviour on the environment leading to the emergence of green products in the market as an indication of adoption of sustainable and environmentally-friendly practices. Though, evidence in extant literature shows that the extent to which religiosity and environmental concern play a role in shaping consumers' purchasing intention for green products appears unclear.

In Enugu State, Nigeria, religion plays a significant role in shaping the activities of many individuals and this has resulted to the integration of religious beliefs into various aspects of daily life, including consumer behavior. Religiosity has been recognized as a key predictor of consumer environmental predisposition, (Memon, Azhar, Haque, & Bhutto, 2020). Studies have shown that religiosity fosters eco-literacy and attitude of environmental concern among the religious community (Nurhaidia, Kusuma&Fazriah, 2022), and makes the religious consumers to become more responsive to green initiatives (Khan & Kirmani, 2018).

Environmental concern has gained a wide space in both business and academia due to an increase in carbon dioxide emissions and air pollution (Sergio, Silva, Braga& Junior, 2020) as well as the increased awareness of the detrimental effects of environmental degradation on human health and well-being. Over the past decades, states in Nigeria including Enugu State have experienced a severe increase in air pollution due to the growth and expansion of business activities among the citizens (Osuagwu, 2019). As such, consumers in Enugu State, Nigeria may consider both religiosity and environmental concern in their purchasing decisions for green products.

Listyorini and Farida, (2022) stated that highly religious consumers are more concerned about the environment and more likely to respond to environmental issues and take actions in environmental protection. Consequently, consumers that have concern for the environment are likely to have interest in purchase of green products.

Prior research has established a positive relationship between religiosity and consumer behavior (Wang, Wang, Li & Zhou., 2020), with religious individuals being more likely to engage in pro-social behavior, including charitable donations and volunteering, (Wang & Zhang, 2020). However, the relationship between religiosity and green product consumption has not been fully explored (Chai & Chen, 2021). Consequently, studies relating to religiosity and consumer green purchase intention are limited (Wang, Wang, Li & Zhou., 2020). Additionally, previous studies have found that environmental concern is a predictor of consumers' purchase intention for green products (Listyorini & Farida, 2022; Newton,

Tsarenko, Ferraro, & Sands, 2015), indicating that consumers who are more environmentally concerned are more likely to purchase environmentally-friendly products.

This research sought to examine the moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria. The study aims to achieve the following objectives:

1. To examine the relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.
2. To investigate the relationship between environmental concern and consumers' green purchase intention in Enugu State, Nigeria.
3. To ascertain the moderating effect of environmental concern on the relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

Conceptual Review and Hypotheses Development

The Concept of Religiosity

Religiosity is a complex concept that encompasses the beliefs, practices, and values associated with a particular religion. Khraim, (2010) posit that religion functions at the macro level to aspire followers to behave in accordance with specified laws, and doctrines while religiosity operates at the micro level in an individual's life to show the level of commitment. It is an important aspect of many individuals' lives in Enugu State, Nigeria, where Christianity and Islam are the dominant religions. In previous studies, religiosity has been defined differently because the diverse religious believers are having different perspectives of religiosity in terms of their beliefs. Religiosity is seen as belief in the existence of God and the set of divine guidelines for human behavior and worldly actions (McDaniel & Burnett, 1990). Also Worthington, Wade, Hight, Ripley, McCullough, and O'Connor (2003), defined religiosity as the degree in which individuals adhere to their religious values, beliefs, and practices, and use these in their daily living. This definition of religiosity by Worthington et al. (2003) is adopted in this study because of its non-restrictive nature towards the scope of those individuals who believe in God (Wang, Wong, & Elangkovan, 2019).

The Concept of Environmental Concern:

Dunlap and Jones (2002) posit that environmental concern can be seen as the degree of consumer awareness of environmental problems and their readiness to participate in mitigating these problems. Takala (1992) opine that environmental concern is an evaluation, and attitude towards the behavior of others that has consequences for the environment. It can also be seen as the degree of consumer worry

about threats to the environment (Hassan, 2014). Kim and Choi, (2005) believe that environmental concern connotes consumers' level of sensitivity to environmental problems and their willingness to be a part of the solution. In this context, environmental concern refers to the degree to which individuals are aware of and concerned about the impact of their actions on the environment.

Religiosity and Green Purchase Intention

Previous research has established that religiosity can influence various aspects of consumer behavior, including charitable donations and volunteering. Wang, Wong, and Elangkovan, (2019) posit that religiosity affects green purchase intention. Cohen and Hill, (2007) posit that an individual's level and type of religiosity affects the person's behaviour in terms of the demarcation of moral standards, thoughts, judgments, attitudes and actions. Religiosity also affects the choices and preferences of an individual during purchase behaviour (Choi Paulraj, A., & Shin. 2013; Muhamad&Mizerski, 2013), and their decision-making generally (Choi, 2010).

In marketing literature, the religious commitment of an individual is termed as his religiosity (Madni, Hamid & Rasheed; 2016; Muhamad&Mizerski, 2010). In this context, commitment connotes an individual's stringent following of his beliefs system to which the person is committed by virtue of religion and its associated principles (Chai & Tan, 2013). Chukwu, Eze, Anukwe and Iloka, (2022) posit that this level of commitment is often translated into an individual's intentions, attitude, and behavior. Hence, the religiosity of an individual is also expressed by the link to the specific religious group for compliance with religious doctrines. Therefore, among peer groups this level of commitment gives an individual unique identity due to the explicit affiliation to the religious group, which plays a significant role in the person's decision-making (Chukwu, Eze, Anukwe&Iloka. 2022); including purchase intentions. Based on the above review, it was hypothesized that:

H₁: There is a significant relationship between religiosity and consumer green purchase intention in Enugu state Nigeria.

Environmental Concern, and Consumers' Purchase Intention of Green Products

The incessant global environmental issues has increased the sense of environmental awareness among consumers, making them to be more sensitive and concerned about the environment (Hassan, 2014), thereby being more responsive to green initiatives (Khan & Kirmani, 2018). Following consumers' sensitivity to the environment, a minor alteration in the environment is likely to inspire their active participation in environmental conservation programmes (Kim & Choi, 2005). Consequently, it is expected that consumers who have high level of environmental concern will change their consumption

patternsto protect the environment from harm (Kim and Choi, 2005). Khaola (2014) observed that environmental concern has a significant effect on green purchase intention. Also, Ahmad, Syed,,Naseer, and Rasool, (2018) established that there is a significant influence of environmental concern on green purchase intention. Based on the above review, it was hypothesized that:

H₂: There is a significant relationship between environmental concern and consumer green purchase intention in Enugu State Nigeria.

Moderating Effect of Environmental Concern on Religiosity and Consumers' Green Purchase Intention

Environmental awareness improves concern for the environment and relates to a person's religiosity, whereas religiosity is the belief to behave rightly and wrongly (Wang, et al, 2019). Evidence on marketing literature has shown a nexus between religiosity and environmental concern. Preston (2019) observed that there is a correlation between religiosity and environmental concern. Religious laws and doctrines lay emphasis on human domination over nature and pinpoint the extent of human belief in nature thereby increasing environmental concern and commitment (Listyorini& Farida, 2022). Religion is a significant source of morality which attracts individuals to show concern about their environment (Rice 2006; Vitel, 2009) suchthat religiosity becomes conducive to environmental protection (Listyorini& Farida, 2022). Furthermore, religiosity and environmental awareness also relate to green purchase intention because they contribute to consumers' increasing interest in not damaging the environment (Listyorini& Farida, 2022). Based on the above review, it was hypothesized that:

H₃: There is a significant moderating effect of environmental concern on the relationship between religiosity and consumer green purchase intention in Enugu State Nigeria.

Theoretical Review:

Several theoretical perspectives can be used to explain the relationship between religiosity, environmental concern, and consumers' purchase intention for green products. However, this study is anchored on the theory of planned behavior proposed by Ajzen in 1991.and value-belief norm theory proposed by Stern in 2000.

The theory of planned behavior was used by many past researchers in determining the pro-environmental behavior of the consumer (Aslam et al., 2020). This theory suggests that attitudes, subjective norms, and perceived behavioral control can predict individuals' behavioral intentions. Environmental concern can be seen as an attitude, while subjective norms may be influenced by religiosity. The perceived behavioral control may be influenced by the availability and accessibility of

green products. To improve the explanatory power of the Theory of Planned Behavior, scholars have also considered extending the theory by adding more constructs. For example, Chen and Tung (2014) added environmental concern.

Another relevant theory is the value-belief-norm theory, which posits that individuals' pro-environmental behavior is influenced by their values, beliefs, and social norms. This theory suggests that environmental concern is an important driver of pro-environmental behavior, while religious values and beliefs may also influence behavior through moral considerations. Review of literature shows that past researchers have used the value-belief-norm theory in investigating the religiosity and pro-environmental behavior (Karimi, 2019, Aslam, Razzaque, ,Arif, &Kahshif, 2022)

Conceptual Framework

Based on the integration of the above theories, the conceptual framework for this study as shown in the schema below posits that environmental concern and religiosity will have a positive influence on consumers' purchase intention for green products. Moreover, environmental concern will moderate the relationship between religiosity and consumers' purchase intention for green products, such that the positive relationship between religiosity and purchase intention will be stronger for individuals with higher levels of environmental concern. In line with this, the conceptual framework below shows that religiosity and environmental concern were the independent variables; while environmental concern was the moderating variable, and consumers' purchase intention for green products the dependent variable. The conceptual framework for the study was depicted as follows:

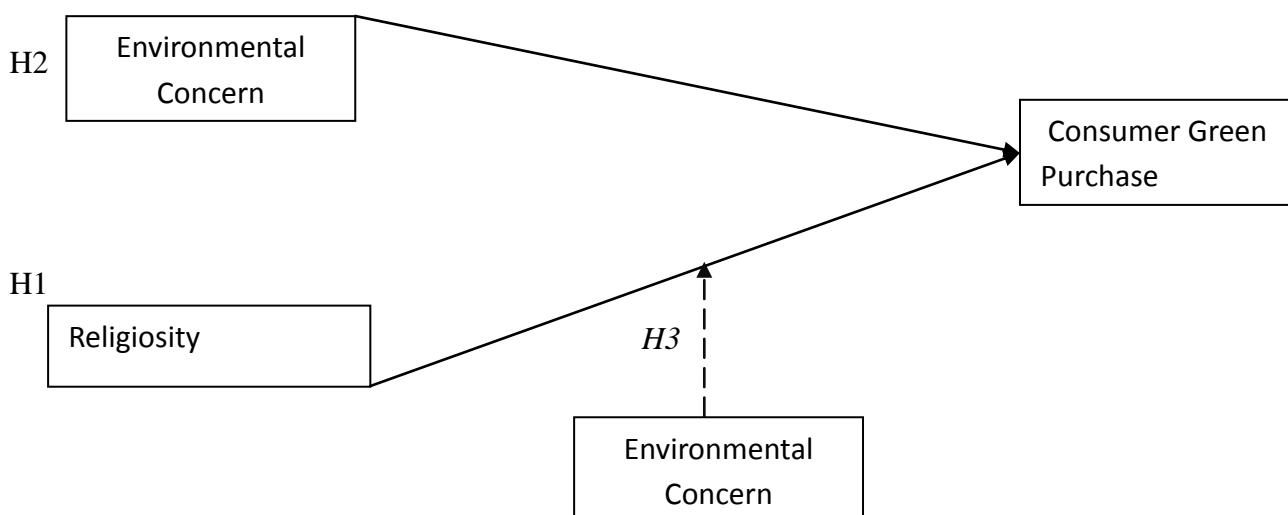


Figure 1: Researchers Conceptual Model of the Study

————→ = Direct Effect

- - - - -> = Moderating Effect

The conceptual framework shows that religiosity and environmental concern have a positive influence on consumers' green purchase intention. Moreover, environmental concern moderates the relationship between religiosity and consumers' green purchase intention. Specifically, the positive relationship between religiosity and purchase intention will be stronger for individuals with higher levels of environmental concern.

This framework suggests that environmental concern plays an important role in shaping the relationship between religiosity and consumers' behavior towards green products. It posits that individuals who are both religious and environmentally concerned may be more likely to purchase green products, as they may view environmental responsibility as a moral obligation. Furthermore, it suggests that religious values and beliefs may interact with environmental concern to influence consumers' behavior towards green products.

Overall, this framework provides a theoretical basis for investigating the relationship between religiosity, environmental concern, and consumers' purchase intention for green products in Enugu State, Nigeria. By examining the role of these variables, the study aims to contribute to the literature on sustainable consumption in developing countries and inform efforts to promote green products in Enugu State, Nigeria.

Empirical Review:

Chai and Chen, (2021) carried out a study to examine "Religiosity as an Antecedent of Attitude towards Green Products: An Exploratory Research on Young Malaysian Consumers. Religion has long been acknowledged as an important social force that influences human behavior but yet in the secular society its influence on consumer behavior appears to be underestimated. The research was exploratory in nature and attempted to investigate the influence of religiosity on attitudes towards green products especially among young Malaysian consumers. Religiosity, the independent variable, was measured by the intrinsic/ extrinsic religious orientation scale adopted from Allport and Ross (1967). The dependent variable was derived from a study on attitudes towards green product (Mostafa, 2007). The questionnaires were distributed to students in a large private university located in Klang Valley, Malaysia. Reliability analysis and multiple linear regressions were conducted. The results from the multiple linear regression analysis indicate that intrinsic religiosity has a significant relationship on consumer's attitude towards green product. However, in the case of extrinsic religiosity, there is no significant relationship on consumer's attitude towards green product.

Listyorini and Farida (2020) examined Environmental Concern in its Role to Mediate Religiosity and Green Purchase Intention to Retail Consumers, Cafés, and Restaurant in Indonesia. This study aims to determine the influence of religiosity on environmental concern, the influence of religion on green

purchase intention, and the influence of environmental concern on green purchase intention. This research was conducted with the criteria of respondents who have visited retail shops, cafes and restaurants, and who have campaigned against the green environment. This study was conducted in Central Java with 100 respondents using the WarpPls analysis tool. This research resulted in findings that (i) religiosity has a significant effect on Environmental Concern, (ii) Religiosity has a significant effect on Green Purchase Intention, and (iii) Environmental Concern has a significant effect on Green Purchase Intention. Retailers, cafes, and restaurants need to pay more attention to the green environment component because high religiosity consumers have high green purchase intentions. The study recommended that retailers, cafes, and restaurants need to pay more attention to the green environment component because high religiosity consumers have high green purchase intentions. These components include increasing green products, green packaging, and green shopping bags..

Wang and Zhang (2020), carried out a study on the Role of Extrinsic Religiosity on Consumer Green Hotel Selection in China. Despite the known impact of religiosity has on certain consumption related consumers' attitudes and behaviors, however, research investigating the influence of religion as an antecedent to pro-environmental attitudes and behaviors remain unexamined or even yields mixed results. In particular, there is a limited amount of empirical studies has focused on the potential effectiveness of religiosity as an important predictor in understanding consumer green purchase behavior in China. The purpose of this study is to examine the relationship between extrinsic religiosity, green purchase attitude, and intention toward green hotel selection. A survey questionnaire was developed where a total of 421 questionnaires were ultimately collected followed by subsequent empirical testing of the postulated hypotheses, which was conducted using SPSS and Structural Equation Modeling. The results suggested that extrinsic religiosity significantly and positively influences attitude and intention respectively. The attitude also displayed a significant positive influence on intention. Further, the Buddhism group has a higher level of green purchase attitude and intention compared with Taoism group and Islam group respectively. Lastly, the practical and theoretical implications were discussed accordingly, as well as the limitations associated in this work.

Rafsanjan, and Asnawi, (2020), carried out a study to examine Religiosity and Environmentally Friendly Behavior of Millennial Muslim Consumers in Indonesia. The purpose of this study was to investigate the impact of attitudes, subjective norms, and religiosity on consumer intentions to support government policies on environmentally friendly behaviour. Data was collected through a structured survey questionnaire directly administered on 100 Muslim students in Indonesia. Data collected were analyzed using multiple linear regressions, and after data analysis it was found that attitudes, subjective norms and

religiosity as determinants of muslim consumer intentions in supporting government policies on environmentally friendly behaviour, namely paid plastic bag policies.

Wang, Wong, and Elangkovan (2019): conducted a study on the Influence of Religiosity on Consumer's Green Purchase Intention towards Green Hotel Selection in China. Prior studies have mostly focused on examining consumer's green purchase attitude-behaviour gap by utilizing the Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) models. However, the relevant literature has revealed controversial results, further emphasizing the need to integrate novel theories or theoretical perspectives in this particular research field. The scarcity of scholars who pays attention to the influence of religiosity upon consumer's green hotel decision-making process in non-western countries, such as China, is especially evident. Therefore, this study examined the relationship between the religiosity of both intrinsic and extrinsic types, green purchase attitude (GPA), and green purchase intention (GPI) towards green hotel selection. A conceptual research model based on the TRA and TPB has been proposed. A total of 426 valid questionnaires were collected from domestic tourists that currently stay and were staying at green hotels to empirically test the generated hypotheses using SPSS and Structural Equation Modeling. The results indicated that Green Purchase Action significantly and positively influenced Green Purchase Intention, extrinsic religiosity positively and significantly influenced Green Purchase Action.

Methodology

The study used a quantitative research design and data collected through a structured survey questionnaire in a Google Document administered to a sample of consumers in Enugu State, Nigeria. The study covered Enugu State,, Nigeria as the area of study. The population of the study included consumers among different religious groups in Enugu State, Nigeria. The Cochran's formular for determination of sample size for an unknown population was employed to determine the sample of 384 consumers who were selected from various religious groups in Enugu State, Nigeria using purposive sampling method. A twenty one (21) item survey questionnaire in a Google Document was designed and properly categorized into two sections. The first section focused on the demographic characteristics of the respondents while the second section directly addressed the research variables. Each of the variables has five items that were adopted from previous studies that have passed instrument validation and reliability test. The items for religiosity were extracted from Wang et al, (2020); the items for environmental concern were extracted from Listyorini& Farida (2022) and Karimi& Khan, (2016); while the items for Green Purchase Intention were extracted from Wang, Wong, and Elangkovan (2019). The five-point Likert scale with responses ranging from 5 indicating strongly agree; 4 indicating agree ;

3 indicating neutral , 2 indicating disagree ; and 1 indicating strongly disagree was utilized. To validate the research instrument, content validity, face validity and discriminate validity were employed. For instrument reliability, Composite Reliability and Cronbach Alpha were used to establish the internal consistency of the items representing each constructs. Data analysis was carried out using descriptive and inferential statistics. Descriptive statistics was used for analyzing demographic data. Structural Equation Modeling (SEM) test with AMOS was used to test the hypotheses.

Results and Discussion

Questionnaire Distribution and Response Rate

Table 1 below shows the descriptive statistics of the demographic characteristics of the respondents. A total of 400 questionnaires designed on Google Doc were administered to the respondents. Out of the administered questionnaires, 384 were properly filled and returned which depicts 96% response rate.

Table 1: Respondents' Demographic Characteristics (N=384)

Factor	Status	Frequency	Percent %	Valid Percent %	Cumulative Percent
Gender	Male	193	50.3	50.3	50.3
	Female	191	49.7	49.7	100
MaritalStatus	Married	143	37.2	37.2	37.2
	Single	241	62.8	62.8	100
Age	Below 25	50	13.1	13.1	13.1
	26-34	100	26.0	26.0	39.1
	35-44	90	23.4	23.4	62.5
	45-54	100	26.0	26.0	88.5
	Above 55	44	11.5	11.5	100.0
Occupation	Public servant	85	22.1	22.1	22.1
	Business person	111	28.9	28.9	51.9
	Entrepreneur	39	10.2	10.2	61.1
	Religious leader	30	7.8	7.8	68.9
	Environmental activist	30	7.8	7.8	76.6
	Educator	50	13.1	13.1	89.7
	Students	39	10.2	10.2	100
Education	FSLC	50	13.1	13.1	13.1
	WAEC/NECO	100	26.0	26.0	39.1
	NCE/OND	39	10.2	10.2	49.3
	HND/BSc	100	26.0	26.0	75.3
	MBA/MSc	30	7.8	7.8	83.1
	PhD	65	16.9	16.9	100.0
RELIGION	ISLAM	30	7.8	7.8	7.8
	CHRISTAINITY	245	63.8	63.8	71.6
	TRADITIONALIST	73	19.0	19.0	90.6
	ATHEIST	36	9.4	9.4	100.0

MONTHLY INCOME	BELOW 150,000	180	46.9	46.9	46.9
	150,000-200,000	63	16.4	16.4	63.3
	250,000- 300,000	39	10.2	10.2	73.4
	350,000-400,000	62	16.1	16.1	89.6
	ABOVE 400,000	40	10.4	10.4	100.0

Source: Field Survey, 2025.

Table 1 above shows that out of the 384 respondents who responded favorably in the survey, 193(50.3%) were males while 191(49.7%) others were females. It also shows that 143(37.2%) were married while 241(62.8%) others were still singles. In terms of the ages of the respondents, 50(13.1%) of them were < 25years old, 100(26.0%) said they were 26 – 34years old, 90(23.4%) said they were 35 – 44years old, 100(26.0%) said they were 45 – 54years while 44(11.5%) others said they were \geq 55years old. In respect to their occupation 83(22.1%) were public servants, 111(28.9%) business persons; 39(10.2%) entrepreneurs; 30(7.8%) religious leaders; 30(7.8%) environmental activists; while 50(13.1%) were educators and 39(10.2%) students. Out of the 384 respondents, 50(13.1%) were FSLC holders; 100(26.0%) were WAEC/NECO holders; 39(10.2%) were NCE/OND holders; 100(26.0%) HND/BSC holders; 30(7.8%) were MBA/MSc holders; while 65(16.9%) were PhD holders. In terms of their religious affiliation, 30(7.8%) were Muslims, 245(63.8%) were Christians; 73(19.0%) were Traditionalists; 36(9.4%) were Atheists. Regarding their average monthly income, 180(46.9%) receive N150, 000 or less; 63(16.4%) receive between N150, 000 and N200, 000; 39(10.2%) receive between N250,000 and N300,000; 62(16.1%) receive between N350,000 and N400,000 while 40(10.4%) receive above N400,000.

Measures

All the measurement scales were subjected to confirmatory factor analysis (CFA) in AMOS 24.0 to calculate the data fit indexes of each scale using T1 data. The following parameters were used to estimate the data fit: $\chi^2/df \leq 0.3$; CFI, IFI and TLI ≥ 0.90 ; SRMR ≤ 0.08 , RMSEA ≤ 0.06 , PClose ≥ 0.05 . The thresholds for the composite reliability (CR) and Cronbach's alpha (α) were ≥ 0.70 and ≥ 0.60 respectively; whereas the discriminant validity (DV) was determined as the values of the square root of average variance extracted (AVE) were greater than the correlation of the latent variables in the CFA (Hu & Bentler, 1999; Kline, 2011). Also, following the pattern in previous studies (e.g., Ogbuanya & Chukwuedo, 2017; Okorie et al., 2022; Okolie et al., 2022), the values of Cronbach's alpha were calculated and reported for RG, EC and PI data.

Religiosity: In the present study, the subscales were used as a single scale to measure Religiosity, and the one-factor CFA model yielded a good data fit: $\chi^2 = 5.759$; $df = 5$; $\chi^2/df = 1.15$; CFI = 0.92; TLI = 0.90; IFI = 0.94; SRMR = 0.03; RMSEA = 0.02 and PClose = 0.75, with the reliability Cronbach's $\alpha = 0.74$.

Environmental Concern: In the present study, the subscales were used as a single scale to measure Environmental Concern, and the one-factor CFA model yielded a good data fit: $\chi^2 = 4.017$, $df = 5$; $\chi^2/df = .80$; CFI = 1.0; TLI = 1.0; IFI = 1.0; SRMR = 0.02; RMSEA = 0.00 and PClose = 0.87, with the reliability Cronbach's $\alpha = 0.81$.

Purchase Intention: In the present study, the subscales were used as a single scale to measure purchase intention, and the one-factor CFA model yielded a good data fit: $\chi^2 = 6.087$, $df = 5$; $\chi^2/df = 1.21$, CFI = 0.96; TLI = 0.93; IFI = 0.97; SRMR = 0.04; RMSEA = 0.02 and PClose = 0.72, with the reliability Cronbach's $\alpha = 0.83$.

Table 2: Cronbach Alpha Value, Composite reliability and Average Variance Extracted

S/N	Factor	Items	Cronbach Alpha	CR	AVE
1	RG	5	0.74	0.73	0.85
2	EC	5	0.81	0.89	0.82
3	PI	5	0.83	0.85	0.77

Source: Field Survey, 2025

Structural Equation Modeling and Test of hypotheses

To test the proposed hypotheses, a cross-lagged panel model analysis was tested by a means of path analysis in AMOS 24.0 (anchez- ' Alvarez ' et al., 2019; Talsma et al., 2018), and all estimates were calculated using the maximum likelihood with boot- strapping (500 resampling at 95 % confidence intervals). The model included Religiosity and Environmental Concern (independent variables), Environmental Concern (moderator), Purchase intention(dependent variable), The path model tested all direct and indirect effects, total effects simultaneously with an acceptable statistical fit: $\chi^2 = 103.441$; $df = 87$, $\chi^2/df = 1.19$, CFI = 0.92, IFI = 0.93, TLI = 0.93, SRMR = 0.03, RMSEA = 0.22 and PClose = 1.0 (Hooper et al., 2008; Hu &Bentler, 1999)..

Test of Hypothesis one

H0: There is no significant relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

H1: There is a significant relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

Estimates		p-value		Result
Religiosity intention	→ purchase	0.43	0.00	Significant

The analysis above showed significant relationship between religiosity and consumer purchase intention for green products in Enugu State, Nigeria ($\beta = 0.43$, $P < .05$), thus, H_1 was rejected. Therefore, indicating that there is a significant relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria.

Test of Hypothesis two

H_0 : There is no significant relationship between environmental concern and consumers' green purchase intention in Enugu State, Nigeria.

H_2 : There is a significant relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

Estimates		p-value		Result
Environmental concern	→ purchase intention	0.70	0.02	Significant

The analysis showed that there is a significant relationship between environmental concern and consumers' purchase intention for green products ($\beta = 0.70$, $P < .05$), thus, H_2 was rejected. Therefore, indicating that there is a significant relationship between environmental concern and consumers' purchase intention for green products in Enugu State, Nigeria.

Test of Hypothesis three

H_0 : There is no significant moderating effect of environmental concern on the relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

H_1 : There is a significant moderating effect of environmental concern on the relationship between religiosity and consumers' green purchase intention in Enugu State, Nigeria.

Estimates		p-value		Result
Religiosity	→ Environmental concern → purchase intention	0.70	0.02	Significant

The analysis showed that there is a significant moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products ($\beta = 0.70$, $P < .05$),

thus, H_3 was rejected. Therefore, stating that there is a significant moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products

Table 3: Significant testing result of the Structural Model Path Coefficient

Hypotheses	Path	Path Coefficient	Significant Level	Path Values	RESULT
H1	Religiosity –Purchase Intention	0.43	0.00	$P < .05$	Accepted
H2	Environmental Concern- Purchase Intention	0.70	0.02	$P < .05$	Accepted
H3	Environmental Concern- Religiosity-Purchase Intention	0.70	0.02	$P < .05$	Accepted

Discussion, Conclusion and Recommendations

Discussion of findings

The study sought to establish the moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria.

The first hypothesis was tested to establish whether there is a significant relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria. The result of the Structural Equation Modelling demonstrated that there is a significant relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria ($\beta = 0.43$, $P < .05$). This outcome is supported by previous studies on consumer behaviour literature (Aslam, Razzaque, Arif, and Kahshif, (2022, Memon, Azhar, Haque, and Bhutto, (2020, Wang, Wong, and Elangkovon, (2019). Choi ,Paulraj and Shin. (2013) posit that religiosity also affects the choices and preferences of an individual during purchase behaviour; and their decision-making generally including purchase intention (Choi, 2010). Hence, consumers with high level of commitment to their religion have higher tendency of associating with green purchases.

The second hypothesis was tested to establish whether there is a significant relationship between environmental concern and consumers' purchase intention for green products in Enugu State, Nigeria. The analysis carried out with Structural Equation Modelling confirmed that there is a significant relationship between environmental concern and consumers' purchase intention for green products in Enugu State, Nigeria ($\beta = 0.70$, $P < .05$). This outcome is in agreement with the study conducted by Listyorini and Farida (2020) to examine environmental concern in its role to mediate religiosity and green purchase intention to retail consumers, cafés, and restaurant in Indonesia. Also, Khoala (2014) and Ahmad, Syed,,Naseer, and Rasool, (2018) established that there is a significant influence of environmental concern on green purchase intention.

The third hypothesis was tested to establish whether there is a significant moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for

green products in Enugu State, Nigeria. The Structural Equation Modelling result revealed that there is a significant moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria ($\beta = 0.70$, $P < .05$). This result is supported by studies on extant literature. A study conducted by Listyorini and Farida (2020) to examine environmental concern in its role to mediate religiosity and green purchase intention to retail consumers, cafés, and restaurant in Indonesia.

Conclusions

The study sought to investigate the moderating effect of environmental concern on the relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria. The results have shown that religiosity has a significant effect on consumers' purchase intention for green products in Enugu State, Nigeria. It has as well confirmed that environmental concern has a significant effect on consumers' purchase intention for green products in Enugu State, Nigeria. Also, the study observed that environmental concern has a significant moderating effect on the relationship between religiosity and consumers' purchase intention for green products in Enugu State, Nigeria.

According the results, Environmental concern has a more significant effect on consumers' purchase intention for green products compared to the effect of religiosity. However, religiosity has a more significant effect when being moderated by environmental concern.

The study has limitation of scope as it was conducted in Enugu State, Nigeria, a small portion of the country which implies that the conclusions only apply to the Enugu State, geopolitical Zone of Nigeria. The study also utilized the purposive sampling a non-probability sampling technique which has the limitation of generalization. Hence, to draw a more reprehensive sample for better generalizations, further studies should utilize probability sampling methods

Recommendations

Religiosity and environmental concern should be considered by green products organizations in their bid to improve consumers' purchase intention and consumers' purchase of green products. Managers should not only focus on the firm's profit-related objectives, but must also look at the environmental impacts of their business operations.

REFERENCES

- Ahmad, I., Syed, F., Naseer, S., & Rasool, G., (2018) Environmental concern as an underlying mechanism between environmental beliefs and green purchase intentions. *South Asian Journal of Management Sciences*, 12 (1), 93–115
- Anwar, A., & Malik, S. (2021) Cogitating the Role of Technological Innovation and Institutional Quality on Environmental Degradation in G-7 Countries: *International Journal of Green Economics*, 15(3), 213-232.
- Aslam, W., Farhat, K., & Arif, I. (2021) Regular to Sustainable Products: An Account of Environmentally concerned Consumers in a Developing Economy: *International Journal of Green Energy*, 18(3), 243-257
- Aslam, W., & Jawaid, S. T. (2023) Systematic Review of Green Banking Adoption: Following *PRISMA Protocols: IIM Kozhikode Society & Management Review*
- Aslam, W., & Jawaid, S. T. (2022) Green Banking Adoption Practices: Improving Environmental, Financial, and Operational Performance: *International Journal of Ethics and Systems*,
- Chai, L. T. and Chen, T. B (2021) "Religiosity as an Antecedent Of Attitude Towards Green Products: An Exploratory Research on Young Malaysian Consumers," *ASEAN Marketing Journal*: 1 (1) 23-36. DOI: 10.21002/amj.v1i1.1979 Available at: <https://scholarhub.ui.ac.id/amj/vol1/iss1/3>
- Chukwu, I; Eze, J; Anukwe, G.I and Iloka, B.C. (2022) Impact of Religiosity on Consumers' Purchase behaviour: Moderating Role of Perceived Social and Psychological Risks: *Nigeria Management Academy*; 17 (1), 124-134
- Echchad, M. and Ghaith A. (2022) Purchasing Intention of Green Cosmetics Using the Theory of Planned Behavior: The Role of Perceived Quality and Environmental Consciousness: *Expert Journal of Marketing*, 10, (1).62-71,
- Farhat, K., Aslam, W., & El Alfy, S. (2022) Green Purchasing Behavior on Social Media: A Goal-Framing Theory Perspective. In *Sustainable Development Through Data Analytics and Innovation* 7 (3) 17-31
- Farhat, K., Aslam, W., & Luna, I. R. D. (2021) Yes, You Make Me Confused and Skeptic: Exploring Green Confusion and Green Advertisements Skepticism on Social Media. In *Digital Marketing & eCommerce Conference*: 1 (3) 313-329
- Iqbal, S., & Khan, M. I. (2020), "Spirituality as a Predictor of Psychological Well-Being: An Explanatory Mechanism of Religiosity and Sustainable Consumption. *Religions*", Vol. 11 No. 12, pp. 634.
- Ives, C. D., and Kidwell, J. (2019) Religion and social values for sustainability *Sustain Sci*. 14, 1355–1362. doi: 10.1007/s11625-019-00657-0
- Khan, M. N., & Kirmani, M. D. (2018), "Role of religiosity in purchase of green products by Muslim students", *Journal of Islamic Marketing*, Vol. 9 No. 3, pp. 504–526.

- Khaola, P. P. (2014). Environmental Concern, Attitude Towards Green Products And Green Purchase Intentions Of Consumers In Lesotho. *Ethiopian Journal Of Environmental Studies & Management* 7(4), 361 – 370
- Kalamas, M., Cleveland, M., and Laroche, M. (2014) Pro-environmental behaviors for thee but not for me: green giants, green Gods, and external environmental locus of control. *J. Bus. Res.* 67, 12–22. doi: 10.1016/j.jbusres.2013.03.007
- Karimi, S., and Saghaleini, A. (2021) Factors influencing ranchers' intentions to conserve rangelands through an extended theory of planned behavior. *Glob. Ecol. Conserv.* 26:e01513. doi: 10.1016/j.gecco.2021.e01513
- Karimi, S., and Saghaleini, A. (2021b). What drives ranchers' intention to conserve rangelands: the role of environmental concern (a case study of Angoshteh Watershed in Borujerd County, Iran). *J. Rangel. Sci.* 11, 419–430.
- Kasliwal, N., & Agarwal, S. (2015). A study on Indian consumers' attitude and choice of preferences for green attributes of the hotel industry. Prabandhan: *Indian Journal of Management*, 8(1), 21–33.
- Kirmani, M. D., & Khan, M. N. (2016). Environmental concern to attitude towards green products: Evidences from India. *Serbian Journal of Management*, 11(2), 159–179.
- Kumar, A. (2019). Exploring young adults' e-waste recycling behaviour using an extended theory of planned behaviour model: a cross-cultural study. *Resour. Conserv. Recycl.* 141, 378–389. doi: 10.1016/j.resconrec.2018.10.013
- Listyorini S. & Farida N. (2022) Environmental Concern in its Role to Mediate Religiosity and Green Purchase Intention to Retail Consumers, Cafés, and Restaurant: *International Journal of Research in Business and Social Science* 11 (8) 251-257 <https://doi.org/10.20525/ijrbs.v11i8.2112>
- Madni, A. R., Hamid, N. A., & Rashid, S. M. (2016). An association between religiosity and consumer behavior: A conceptual piece. *The Journal of Commerce*, 8(3), 58–65.
- Martin, W. C., & Bateman, C. R. (2014). Consumer religious commitment's influence on ecocentric assttitudes and behavior. *Journal of Business Research*, 67(2), 5–11.
- Martínez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5), 896–917.
- Mead, L. (2019) G7 Summit discusses inequalities, global environmental challenges: News: SDG knowledge hub: IISD. Retrieved from <https://sdg.iisd.org/news/g7-summitdiscussesinequalities-global-environmental-challenges/>
- Memon, Y.J., Azhar, S.M., Haque, R. and Bhutto, N.A. (2020), "Religiosity as a moderator between theory of planned behavior and halal purchase intention", *Journal of Islamic Marketing*, Vol. 11 No. 6, pp. 1821-1836. <https://doi.org/10.1108/JIMA-01-2019-0006>
- Minton, E. A., Kahle, L. R., & Kim, C.-H. (2015). Religion and motives for sustainable behaviors: A cross-cultural comparison and contrast. *Journal of Business Research*, 68(9), 1937–1944.

- Moyo, N. (2018). Environmental Concern and Purchase Intention of Electric Vehicles in the Eastern part of China. *Archives of Business Research*, 6(8), 297-309.
- Onel, N., and Mukherjee, A. (2015) Understanding environmentally sensitive consumer behaviour: an integrative research perspective. *World J. Entrep.Manag. Sustain. Dev.* 11, 2–16. doi: 10.1108/WJEMSD-07-2014-0021
- 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, 123–134.
- Rafsanjan, E &Asnawi, N (2020), Religiosity and Environmentally Friendly Behavior of Millennial Muslim Consumers in Indonesia. *Management and Economics Journal*: 4(2) 143-152
- Wang, S., Wang, J., Li, J., and Zhou, K. (2020). How and when does religiosity contribute to tourists' intention to behave pro-environmentally in hotels? *J. Sustain. Tour.* 28, 1120–1137. doi: 10.1080/09669582.2020.1724122
- Wang, Y., Liang, J., Yang, J., Ma, X., Li, X., Wu, J., et al. (2019). Analysis of the environmental behavior of farmers for non-point source pollution control and management: an integration of the theory of planned behavior and the protection motivation theory. *J. Environ. Manag.* 237, 15–23. doi: 10.1016/j.jenvman.2019.02.070
- Wang, L., Weng Wong, P. P., &Elangkovan, N. A. (2020), “The influence of religiosity on consumer's green purchase intention towards green hotel selection in China”, *Journal of China Tourism Research*, Vol. 16 No. 3, pp. 319-345.
- Wang, L., Wong, P. P. W., &Elangkovan, N. A. (2019), “The demographic impact of consumer green purchase intention toward green hotel selection in China”, *Tourism and Hospitality Research*, Vol. 20 No. 2, pp. 210-222.
- Wang L. & Zhang X. (2020), The Role of Extrinsic Religiosity on Consumer Green Hotel Selection in China; *International Journal of Tourism & Hotel Business Management (IJTHBM)* 3 (2) 405-425
- Zhang, X., & Dong, F. (2020) “Why Do Consumers Make Green Purchase Decisions? Insights from a Systematic Review”, *International Journal of Environmental Research and Public Health*, Vol. 17 No. 18, pp. 6607.