

## Green Marketing Mix and Consumer Purchase Decision of Products in Uyo Metropolis, Akwa Ibom State, Nigeria

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**Abstract:** This study was conducted to examine the effect of green marketing mix on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria. The survey research design was used in the study. Data for the study were obtained through a questionnaire administered to the respondents. 369 respondents were selected using a convenience sampling technique. Three hypotheses were formulated and tested at the 0.05 level of significance. Data obtained for the study were analysed using descriptive and inferential statistics. Descriptive statistics involved the use of tables, frequency and percentage while hypotheses were tested using simple linear regression model. The findings of the study revealed a positive significant effect of green marketing-green product, green price and green promotion on consumer purchase decision of products. Based on the findings of the study, it was recommended among others that manufacturers of green products should continuously improve the contents of their products to satisfy consumer needs and wants with additional new features to maintain high quality to attract patronage.

**Keywords:** Green marketing mix, Green product, Green price, Green promotion, Consumer purchase decision.

### 1. Introduction

In recent years, there has been growing awareness among people about environmental issues. Consumers are becoming more and more aware of the environmental problems and are actively making effort to reduce their effects on the environment by purchasing green products. The whole world is experiencing environmental problems such as global warming, climate changes, environmental pollution, water and air contamination, fall of natural resources, deforestation, depletion of ozone layer, etc. All these problems led to disruption and losses for business. The harmful activities of the manufacturing companies and corporate sector are mainly responsible for the aforementioned problems. Etetor, Attih and Udoka (2024) emphasized the integration of environmental considerations into strategic decision-making processes which involves reducing pollution, conserving resources, producing and promoting products that are environmental friendly and sustainable. Hadi, Sari and Khairi (2023) opined that, to ensure smooth operations and to reduce harmful environmental effects, businesses are beginning to move towards producing environmental friendly products.

Green marketing is the marketing of products that are considered to be environmental friendly, eco-friendly, and organic by consumers. It is a business activity that create, price, promote and distribute environmentally friendly products to the consumers. Green marketing comprises a wide range of activities including product modification, manufacturing process improvements,

packaging changes, and advertising adjustments (Asoush & Kortam, 2022). With the importance of green marketing in business practices, manufacturers and consumers have shifted their attention towards eco-friendly products that are presumed to be safe or environmental friendly like organic foods, recyclable items, etc. Companies started adopting green marketing and are producing green products that have less harmful effects on the environment humanity than the conventional products (Thomas, 2020).

The elements of green marketing mix-green product, green price, green promotion, and green place (distribution) are basically the same with traditional marketing mix. Attih (2019) described green marketing mix elements as the controllable variables of marketing that the firm can use to satisfy target market as well as achieve its marketing objectives. According to Hayati, Nadem and Jan (2019), the major difference between the green marketing mix and the traditional marketing mix is that traditional marketing mix mainly focused on profit while green marketing mix focusing on environmentally friendly issues for all human beings such as green product, green price, green promotion, and green place (distribution). As a result of harmful effect of pollutants, non-recyclable items, etc., manufacturers, marketers, and consumers are increasingly aware to the need to embrace to green products and services. Poornima and Sowmiya (2023) asserted that, it is widely assumed that while shift to 'green' may appear to be costly, it is unquestionably vital and cost effective in the long run.

Green marketing is an environmental friendly concept that stresses quality, performance, affordability, and practically while minimizing environmental effect (Anjani & Perdhana, 2021). In this era of global environmentalism, many companies are integrating environmental concerns into their business strategies, while green marketing has become the primary technique to attract environmentally conscious consumers (Chen, Huang, Wang & Chen, 2020). In general, concern for environmental issues had improved tremendously worldwide. There is a lot of consumer supporting environmental protection actions embark by world organizations, environmentalists, consumerism and governments. The fact that consumers are exposed to information about the harmful products and their effects on human health and environment has affected their purchasing decision. According to Ashoush and Kortam (2022), consumers in today's society are more concerned about their personal safety and want everything to be environmentally friendly resulting in a greener world.

With consumers' awareness towards the green products, manufacturers and marketers are using different strategies to persuade them to buy products that are considered to be environmentally friendly. The green marketing strategies the companies are using to attract the attention of consumers to patronize their products include eco-friendly packaging, eco-friendly labelling, eco-friendly pricing, eco-friendly advertising, and eco-friendly place (distribution). With effective green marketing practices by companies, it would influence consumer purchase decision positively towards their products and consumers would not refuse to purchase the products offer by the companies in the market. Attih (2020) asserted that consumer purchase decisions are based on consumer's perception, brand image, and positive attitude formed from experience. Hence, this study is basically to examine the effect of green marketing mix on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.

## **1.2 Statement of the Problem**

The benefits of green marketing to the environment, businesses, and consumers cannot be overemphasized. Effective green marketing practices have positive influence on people's health and the state of the environment. Brands being environmentally friendly, conscious, and compliant adds value to such organizations. This will help the organizations involved in green marketing practices to attract consumers to patronize their products, have competitive advantage over others as well as make profit.

However, despite the relevance of green marketing practices to the society at large, consumers are faced with challenges of environmental and health degradation as a result of harmful

business activities. They are exposed to harmful products, deceptive advertising, environmental pollution, water and air contamination, non-recyclable items that are hazardous to the environment, etc. It is against this background the researcher was motivated to embark on this study to examine the effect of green marketing mix-green product, green price, green promotion, green place(distribution) on consumer purchase decision of products in Akwa Ibom State, Nigeria.

### **1.3 Objectives of the Study**

The main objective of this study was to examine the effect of green marketing mix on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria. The specific objectives were:

1. To examine the effect of green product on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.
2. To ascertain the effect of green price on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.
3. To determine the effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.

### **1.4 Research Questions**

Based on the objectives of the study, the following research questions were raised:

1. What is the effect of green product on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria?
2. To what extent does green price influence consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.
3. What is the effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria?

### **1.5 Research Hypotheses**

**H<sub>01</sub>:** There is no significant effect of green product on consumer decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.

**H<sub>02</sub>:** There is no significant effect of green price on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.

**H<sub>03</sub>:** There is no significant effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State, Nigeria.

### **1.6 Significance of the Study**

The findings of study would be of immense benefit to the manufacturers of products, consumers and governments at different levels. It would help the manufacturers on green marketing practices and to identify green marketing mix element that mostly influenced the consumer purchase decision of products. The finding would also help government at different levels in formulation of policies to protect the environment and citizens against harmful business activities. The outcomes of this study would add to the existing body of knowledge on green marketing mix and consumer purchase decision of products, especially in Nigeria. It would serve as a reference material for researchers who want to carry out a study on similar or related topics.

### **1.7 Scope of the Study**

This study was restricted to the consumers of products in Uyo metropolis, Akwa Ibom State, Nigeria. The study focused on three (3) elements of green marketing mix- green product, green price and green promotion as independent variables as well as consumer purchase decision as

dependent variable. The unit of analysis was the consumers of products in Uyo metropolis, Akwa Ibom State.

## 2. REVIEW OF LITERATURE

### 2.1 Concept of Green Marketing

The America Marketing Association defined green marketing as the marketing of products that are presumed to be environmentally safe. Ashoush and Kortam (2022) described green marketing as company efforts to create, produce, price, and distribute products that are environmentally friendly. Polonsky (2011) described green marketing as marketing activity that emphasizes the fulfilment of human needs by paying attention to the possible environment effects. Green marketing has been identified as a strategy to differentiate business based on products and services that cater to the ecological aspect of consumption (Dangelico & Vocalelli, 2017). As a result of consumers becoming more ecologically aware, green marketing practices will help to influence consumers purchase behaviour and preference. Green marketing entails a wide range of activities aimed at safeguarding the environment, establishing consumer rights and meeting consumer needs and wants. Green marketing fights against misleading methods, environmental pollution, food, water and air contamination, as well as protecting consumers against harmful practices by the manufacturers.

### 2.2 Dimensions of Green Marketing Mix

**Green Products:** Green product are products that are produced in an environmentally friendly way, have few negative effects and are recyclable. Environmentally friendly products are included in the category of product that naturally produce non-toxic, pollution free, package naturally an according to components and have a lowest environmental and human impact (Anjani & Perdhana, 2021). According to Bhardwai, Garg, Gujpal and Zheng (2020), green product has certain indicators, namely: the raw material used are environmentally friendly, the product does not generate excessive waste, products are safe for consumption, the packaging use is biodegradable and environmentally friendly eco-labelling and certification, and consumers' perception on the product itself.

**Green price:** Green price refers to the willingness of the consumers to pay a premium price for a green product is guaranteed to environmental benefit (Olarewaju & Ganiyu, 2021). According to Anjani and Perdhana (2021), price is considered as the influential factors in the green marketing mix. Price is the second most important of the green marketing mix, because the profitability of firm depends on the price of a product (Attih, 2024). Many consumers are ready to pay higher prices if they know that the product purchased has added value.

The green price is the price that consumers pay for environmentally friendly products. That is the price pay for a product without harmful effects to humans and the environment. Price is a very important element of green marketing mix when the buyers are deciding whether to purchase a product. Attih (2013) described price as a key element in determining the profitability of a business and a major competitive weapon used in the market place by organizations to achieve their pricing objectives. According to Pritulskaya, Motuzka, Koshelnyk, Motuzka, Yashchenko, Jarossova, Krnacova, Wyka, Malezyk and Habanova (2021), consumers are willing to pay more (suitable) price for ecological friendly (green) products.

**Green promotion:** Green promotion is an effective means to promote the products, services, ideas and efforts of firms to maintain their concerns and initiatives to protect the environment (Anjani & Perdhana, 2021). It is a means by which firms create awareness, share information about the products or services they produced that are environmentally friendly. Promoting green product to target markets can be through advertising, sales promotion, personal selling, word-of-mouth communication, direct marketing and interactive/internet marketing devoid of deception that reinforce environmental compliance of the products or services by using suitable marketing communication tools.

**Green place:** Green place can also be called green distribution. The firms must ensure that their green products are available to the target markets at the right place, right time and right price. Anjani and Perdhana (2021) described green place (distribution) as an environmentally distribution channel that minimizes the efforts of consumers to acquire the products.

### 2.3 Consumer Purchase Decision

Consumer purchase decision is the stage when a consumer actually decides to buy a particular product or a brand. It is the final selection of product to be bought by the consumer (Attih, 2023). Djatmiko and Pradana (2015) stated that the purchase decision making process is the stage wherein consumers actually buy the product. According to Kotler and Armstrong (2016), a consumer purchase decision is a buyer's decision-making stage wherein an individual decides to actually buy a product being considered. Consumer purchase decision refers to the final choice or selection made regarding what product to buy (Attih, 2023 & Attih, 2024) The act of purchase is the last stage, which the consumer decides on what to buy, where to buy, and how to buy (Preethan & Mohan, 2019).

### 2.2 Theoretical Framework

The study is based on the theory of planned behaviour.

#### Theory of Planned Behaviour (TPB)

The theory of planned behaviour was propounded by Ajen in 1991. The theory of planned behaviour(TPB) is an important social cognitive model that aims to explain variance in volitional behaviour and has proven successful in doing so (Ajen, 1991). It has also been validated in the context of pro environmental behaviour (Yazdanpanah and Forouzani, 2015). According to the theory of planned behaviour (TPB) model, attitudes toward behaviour, subjective norms and perceived behavioural control all influence purchase intention.

The possibility that a consumer will buy a product or service in the future is described as intention to purchase. The cognitive variables influencing customers' green product purchasing are representing by intention (Ramayah, Lee, & Mohamah, 2010). Green purchasing behaviours shows a combination of moral decision-making acts and is viewed as a socially responsibility kind of production. Consumers' perceived behavioural issues, environmental knowledge, environmental worries and green trust are the four green purchase intention.

### 2.3 Review of Empirical Studies

Poorima & Sowmiya (2023) examined the impact of green marketing mix on consumer purchase decision intention with special reference to Chennai supermarkets. The deductive approach was used as it acknowledges the needs to investigate the relationship between variables. The sample size of 200 respondents was selected for the study using convenience sampling approach. The hypotheses were tested using multiple linear regression analysis. The results revealed that there was a positive significant impact of green product, green price, green place on green consumer purchase intention. It was concluded that green marketing plays an important role in influencing consumer purchase intention.

Hadi, Sari, & Khairi (2023) investigated the relationship between green marketing mix and purchasing decisions: The role of brand image as indicator in Indonesia. The descriptive survey research design was used in the study. The sample size of 250 respondents was selected for the study using purposive sampling technique. The hypotheses were tested using a Structural Equation Model estimated through Partial Least Square (PLS). The results showed that green product, green price, green place and green promotion have significant influence on consumer purchasing decision indicated by brand image. It was concluded that green marketing plays a crucial role in influencing consumer purchasing decision.

Thomas (2023) studied the impact of green marketing practices on consumer buying behaviour in Twin cities. The exploratory research and a quantitative research approach were used to

obtained information from the respondents. The sample size of 100 respondents from Twin cities was selected using a convenience sampling technique. The hypotheses were tested using independent t-test with the help of SPSS version 16.0. The results of the study highlight that the consumer purchasing decisions in the Twin cities were not influenced by the green marketing practices undertaken by the companies. However, the consumers are willing to pay a higher price for the green products, if these eco-friendly products provide an extra value on them.

Kinasih, Widagda, Rahyuda & Suparna (2023) examined the effect of green marketing and corporate social responsibility on purchase decisions mediated by brand image (study on consumers of Avoskin skincare products, Denpasar city. The survey research design was used in the study to obtain data from the respondents. The sample size of 180 respondents was selected using a non-probability purposive sampling technique. The hypotheses were tested using Structural Equation Modelling (SEM) based on Partial Least Square (PLS). The results of the study showed that green marketing and corporate social responsibility have a positive and significant effect on purchase decision. Green marketing and corporate social responsibility have a positive and significant effect on brand image, brand image has a positive effect on purchase decision and brand image is able to partially mediate green marketing and corporate social responsibility on purchase decision.

Ulfiah, Zainal, Hakim & Rini (2023) studied the effect of green marketing on brand image and impact on purchasing purchase decision (case study on students of the Faculty of Administrative Sciences, Universitas Brawijaya who purchase Tupperware products. The survey research design method was used to obtain data from the respondents. The sample size of 100 consumers was selected using purposive sampling technique. The hypotheses were tested using descriptive statistical and path analysis methods. The results of path analysis showed that green marketing has the sufficient influence on the brand image and purchase decision, and also brand image has influenced purchase decision significantly.

Rajeswari & Suganya (2023) examined green marketing and its influence on consumer purchasing behaviour in Chennai. The survey research design was used to obtained information from the respondents. The sample size of 282 consumers was selected using a random sampling approach. Data obtained for the study were analysed using descriptive statistical methods, including mean, standard deviation and percentiles to gain insights into the respondents' characteristics as a group. Hypotheses were tested using independent t-tests, multiple regression analysis and binary regression analysis. The results revealed a positive and significant effect of green marketing on consumer purchasing decision behaviour. It was concluded that green marketing plays a crucial role in influencing consumer purchasing behaviour.

Ashoush & Kortam (2022) examined the impact of green marketing strategy on consumer purchasing intention in Egypt. The survey research design was used to obtain data from the respondents. The sample size of 385 respondents was selected using non-probability quota sampling technique in order evaluate hypotheses. Data were analysed through descriptive statistics. Hypotheses were tested using correlation matrix and multiple regression model. The findings of the study indicated that green marketing strategies have a positive impact on consumers' purchase intention. All the results showed that there was a significant direct and moderate relationship between the variables of the study. Moreover, the main findings of the study showed that although each strategy alone has a positive impact on consumers' purchase intention but, using green marketing's four strategies altogether is the approach to stimulate consumer's purchase intention. It was concluded that green marketing strategies play crucial role in influencing consumer's purchase intention.

Wu & Liu (2022) studied the influence of green marketing on brand trust: The mediation role of brand image and moderation effect of greenwash in Korea. The questionnaire survey research method was used to distribute questionnaire online through social media to the respondents. The sample size of 415 respondents was selected for the study. The hypotheses were tested using quantitative. The results manifested that the design of the questionnaire was well reliable and

highly effective. Variables were significantly correlated. It was concluded that the relationship between green marketing and brand trust differentiate in the following two dimensions-spontaneity and compulsion. Moreover, brand image plays an obviously intermediary role between green marketing and brand trust, which also proves that greenwash works as a significantly negative regulatory role.

Narimanfar, & Nezhad (2022) investigated the mixed effect of green marketing on the decision of green buying consumers (case study: Consumers of Mihan company's dairy products in Arak). Descriptive survey research design was used to obtain information from the respondents. The sample size of 385 respondents was selected using stratified random method. The hypotheses were tested using multiple linear regression model. Based on the results, green product did not significantly affect consumer green purchase. On the other hand, the green marketing mix reflects 69% of consumer change in green purchases. Finally, each of the dimensions of advertising, distribution, and price of the green marketing mix have a positive and significant on the green purchase of consumers. In contrast, the green product has a negative and insignificant on the green purchase of consumers. It was concluded green marketing mix have positive influence on the consumer purchase decision of dairy products in Arak.

Kanade & Harwani (2022) studied the effect of green marketing on consumer purchasing pattern and decision making in Karnataka state, India. The quantitative research approach was used to obtain information from the respondents. The sample size of 122 respondents was selected using convenience sampling technique. Hypotheses were tested using descriptive statistics. The results showed that force of green bundling and green marking, significance of green items and premium green evaluating decidedly affect purchaser practices prompting green buys. Relationship between spot of home and a portion of ecological conviction factors were found. Connections were found between eco-marking, green marking and green estimating and natural practices of purchasers.

Khayitboeva (2021) examined the impact of green marketing on consumer purchase behaviour and customer satisfaction in Istanbul. The survey research method was used to obtain information from the respondents. The sample size of 400 respondents was selected using stratified random sampling technique. Hypotheses were tested using correlational analysis. The findings of the study revealed that green marketing tools have a significant impact on consumer purchase behaviour and customer satisfaction level in Istanbul. It was concluded that green marketing plays crucial role in influencing consumer purchase behaviour and enhancing customer satisfaction.

Silaban, Sinulinga & Fadli (2021) investigated the effect of green marketing on purchase decisions and brand image as intervening variable (case study at: Pt: coffee Indonesia-Starbucks Focal Point Medan) The descriptive survey research design was used to collect data from the respondents. It was the causal research with a quantitative approach that explain the relationship between independent and dependent variables. The sample size of 155 respondents was selected using purposive sampling technique. The hypotheses were tested using t-test, f-test and path analysis. The results showed that green marketing directly had a positive influence on purchasing decision. Green marketing has a positive influence on brand image. Brand image directly has a positive influence on purchasing decision. From the results of the path analysis, there was no direct effect of green marketing on purchasing decisions through brand image as an intervening variable. Brand image is not the variable that mediate or connect green marketing with Starbucks purchasing decisions.

## **RESEARCH METHODOLOGY**

This section focused on methods and procedures used in collecting and analysing data for the study. It consists of research design, population of the study, sample size, sampling technique, instrument for data collection, reliability of research instrument and methods of data analysis.

### **3.1 Research Design**

The survey research design was used in this study. This research design was used because it helped the researcher to collect first hand accurate information from the respondents using a structured questionnaire.

### **3.2 Population of the Study**

The target population for this study comprised all consumers of products in Uyo metropolis, Akwa Ibom State. Therefore, the population of this study infinite.

### **3.3 Sample Size Determination**

The sample size of this study was determined using Walpole (1974) formula for infinite population as follows:

$$n = \frac{(Z/a/2)^2}{4e^2}$$

Where  $n$  = sample size

$(Z/a/2) = 1.96$

$e = \text{error margin} = 0.05$

$$\text{Sample (n)} = \frac{(1.96)^2}{4 (0.05)}$$

$$= \frac{(1.96)^2}{4 (2.5)}$$

$$= \frac{(1.96)^2}{0.01}$$

$$= \frac{(1.96)^2}{0.01}$$

$$= \frac{3.8416}{0.01}$$

$$= 384.16$$

$$= 385$$

### **3.4 Sampling Technique**

A sample size for this study was selected using convenience sampling technique.

### **3.5 Instrument for Data Collection**

A structured questionnaire was the instrument used in collecting data. The questionnaire was based on a modified 4-point Likert scale items ranging from strongly 4, agree 3, disagree 2, and strongly disagree 1 used in measuring the research hypotheses.

### **3.6 Reliability of the Research Instrument**

To test the reliability of the research instrument, Cronbach's Alpha was used. The results showed reliability coefficients of 0.93 for the independent variables and 0.81 for dependent variable. The reliability coefficients are all greater than 0.70, which implies that the instrument is reliable.

### 3.7 Methods of Data Analysis

Data obtained from the respondents were analysed using descriptive statistics, basically tables, frequency and percentage. Hypotheses were tested using simple linear regression model. All hypotheses were tested at 0.05 level of significance with  $p < 0.05$  indicating statistical significance. Data analysis was enhanced using the Statistical Package for Social Sciences (SPSS version 20.0).

## DATA ANALYSIS AND DISCUSSION OF RESULTS

This section focuses on test of hypotheses and discussion of findings.

### 4.1 Test of Hypotheses

#### Test of Hypothesis 1

**H<sub>01</sub>:** There is no significant effect of green product on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State

**Table 4.1: Simple linear regression analysis result on the effect of green product on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State**

Variable	Parameters	Coefficient	Std error	Teal – Value
Constant		0.346		
Green product (X <sub>1</sub> )		6.214		
R-Square (R <sup>2</sup> )	$\beta_0$	0.929	0.053	6.515***
Adjusted R – Square (R <sup>-2</sup> )	$\beta_1$	0.928	0.090	69.080***
F – Statistics Value		4771.991		
F – Probability		0.000		

Decision Rule: If  $F_{cal} > F_{tab}$  accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(\*\*\* = 1%), (\*\* = 5%), and (\* = 10%) denotes significance of coefficient at level respectively; t-tab value = 1.996, df = 367, Dependent Variable: consumer purchase decision, Predictors: (constant), green product

As shown in Table 4.1 above, the coefficient of green product (X<sub>1</sub>) was statistically and positively related to consumer purchase decision of products at 1 percent level. From the result, green product has a t-calculated value of 69.080 which is greater than 1.966 tabulated value at 0.05 significant level. This implies that, the unit variation of green product leads to 6.214 units increase in consumer purchase decision of green product. Thus, green product has significant effect on consumer purchase decision of products.

The (R<sup>2</sup>) coefficient of multiple determinations was 0.929 which implies that, 92.9% variation in independent variable was explained by changes in the independent variable while 7.1% was unexplained by stochastic variable. This implies that, the independent variable (green product) was able to be explained by 92.9 percent variations in dependent variation (consumer purchase decision), while 19.1% was explained by the stochastic variable. The F-stat value of 4771.991 with F-prob. value of 0.000 which is less than 0.05 indicating a goodness of fit of the regression model adopted in this study which is statistically significant at 5% probability level. Since the t-calculated value 4771.991 is greater than 1.966 tabulated value in absolute terms, null hypothesis was rejected in favour of the alternative hypothesis which states that green product has significant effect on consumer purchase decision of products.

#### Test of Hypothesis 2

**H<sub>02</sub>:** There is no significant effect of green price on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State

**Table 4.2: Simple linear regression analysis result on the effect of green price on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State**

Variable	Parameters	Coefficient	Std error	Teal – Value
Constant		3047.721		
Green price ( $X_1$ )		0.244		
R-Square ( $R^2$ )	$\beta_0$	0.243	868.216	3.510***
Adjusted R – Square ( $R^{-2}$ )	$\beta_1$	0.238	0.110	2.210**
F – Statistics Value		4.882		
F – Probability		0.028		

Decision Rule: If  $F_{calculated} > F_{tabulated}$  accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(\*\*\* = 1%), (\*\* = 5%), and (\* = 10%) denotes significance of coefficient at level respectively; t-tab value = 1.996, df = 367, Dependent Variable: Consumer purchase decision, Predictors: (constant), green price

As shown in Table 4.2 above, green price ( $X_1$ ) was statistically significant and positively related to consumer purchase decision at 5 percent. The coefficient of green price ( $X_1$ ) of 0.244, revealed that, a unit increase in green price, holding other variables constant, will lead to increased positive consumer purchase decision by 0.244 units. From the result, since the green price has a t-calculated value of 3.510 which is greater than 1.996 tabulated value at 0.05 significant level. Thus, consumer purchase decision will increase by 0.244 units.

The coefficient of determination ( $R^2$ ) was quite high with a value of 0.243 which indicates that 24.3% changes in dependent variable can be explained by the changes in the independent variable while 75.7% can be explained by the stochastic terms in model. This implies that the independent variable (green price) can only explain 24.3 percent of changes in consumer purchase decision, leaving 75.7% percent unexplained. The F-stat value of 4.882 is greater than 1.996 and F-probability value of 0.028 was observed from the analysis which is less than 0.05, indicating that the estimated regression model adopted in this study is statistically significant at 5% significant level. With this, the researcher affirmed that the alternative hypothesis, green price has significant effect on consumer purchase decision of products.

### Test of Hypothesis 3

**H<sub>03</sub>:** There is no significant effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State

**Table 4.3: Simple linear regression analysis result on the significant effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State**

Variable	Parameters	Coefficient	Std error	Teal – Value
Constant		3.726		
Green promotion ( $X_1$ )		0.119		
R-Square ( $R^2$ )	$\beta_0$	0.195	0.066	56.255***
Adjusted R – Square ( $R^{-2}$ )	$\beta_1$	0.191	0.029	4.166***
F – Statistics Value		17.353		
F – Probability		0.000		

Decision Rule: If  $F_{cal} > F_{tab}$  accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(\*\*\* = 1%), (\*\* = 5%), and (\* = 10%) denotes significance of coefficient at level respectively; t-tab value = 1.996, df = 367, Dependent Variable: consumer purchase decision, Predictors: (constant), Green promotion. (SPSS Version 22 computation)

The estimate value of green promotion ( $X_1$ ) was statistically significant and positively related to consumer purchase decision at 1 percent level (4.166\*\*\*). This signifies that, the effect of green

promotion leads to 0.119-unit increase in consumer purchase decision of products. The result revealed that, green promotion has a t-calculated value of 4.166 tabulated value at 0.05 significant level (at 95% degree of freedom). Hence the researcher reject null hypothesis in favour of alternate hypothesis which specifies that green promotion has significant effect on consumer purchase decision of products.

The coefficient of determination ( $R^2$ ) was 0.195 which indicates that 19.5% changes in dependent variable can be explained by the changes in the independent variable while 80.5% can be explained by the stochastic terms in model. This implies that the independent variable (green promotion) can only explain 19.5 percent of changes in consumer purchase decision of products, leaving 80.5% percent unexplained. The F-stat value of 17.353 and F-probability value of 0.000 was observed from the analysis which is less than 0.05, indicating that the estimated regression model adopted in this study is statistically significant at 5% significant level. With this, the researcher affirmed that the alternative hypothesis, green promotion has significant effect on consumer purchase decision of products.

#### 4.2 Discussion of Results

The study examined the effect of green marketing mix on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State. The dimensions of green marketing used in the study were green product, green price and green promotion. The result of data as presented in Table 4.1 shows a positive effect of green product on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State. From the result, since the green product has a t-calculated value of 69.080 which is greater than 1.966 tabulated value at 0.05 significant level. This implies that, a unit of variation of green product leads to 6.214 units which increase positively consumer purchase decision of products. The result is in agreement with the research findings of Hadi, Sari, and Khairi (2023) which studied the relationship between green marketing mix and purchasing decisions: The role of brand image as indicator in Indonesia. The findings of the study revealed a positive significant relationship between green product and consumer purchasing decisions. The result is also in line with the findings of Rajeswari and Suganya (2023) which examined green marketing and its influence on consumer purchasing behaviour in Chennai. The results revealed a positive and significant effect of green product on consumer purchasing decision behaviour.

The result of data as presented in Table 4.2 shows a positive significant effect of green price on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State. From the result, since the green price has a t-calculated value of 2.210 which is greater than 1.966 tabulated value at 0.05 significant level. Thus, consumer purchase will increase by 0.244 units, if the green price is charged for the products. This result is in agreement with the research findings of Ulfiah, Zainal, Hakim and Rini (2023) which studied the effect of green marketing on brand image and impact on purchasing purchase decision (case study on students of the Faculty of Administrative Sciences, Universitas Brawijaya who purchase Tupperware products. The results of path analysis showed that green price has the sufficient influence on the brand image and purchase decision. The result of this study is also in agreement with the research findings of Poornima & Sowmiya (2023) which examined the impact of green marketing mix on consumer purchase decision intention with special reference to Chennai supermarkets. The results revealed that there was a positive significant impact of green price on green consumer purchase intention.

The result of data as presented in Table 4.3 shows a positive significant effect of green promotion on consumer purchase decision of products in Uyo metropolis, Akwa Ibom State. From the result, since the green promotion has a t-calculated value of 2.087 which is greater than 1.966 tabulated value of 0.05 significant level. Hence, the null hypothesis is rejected in favour of alternate hypothesis which specifies there is no significant effect of green promotion on consumer purchase decision of products. The result is in consonance with the research findings of Khayitboeva (2021) which examined the impact of green marketing on consumer purchase behaviour and customer satisfaction in Istanbul. The result revealed that green marketing tool of

green promotion has a significant impact on consumer purchase behaviour and customer satisfaction level in Istanbul. The result of this study is also in agreement with the research findings of Suhaily, Darmoyo Boentoro & Dermawan (2020) which studied the effect of green product, green price, green promotion and green place to purchase decision mediated by consumer attitude on coffee shop in Indonesia. The results of this study indicated that green promotion directly influence positively the consumer purchase decision of coffee in Indonesia.

## 5. Conclusion

The study was on green marketing and consumer purchase decision of products in Uyo metropolis, Akwa Ibom State. The results clearly revealed that green product, green price and green promotion have a positive significant effect on consumer purchase decision of products. The result implies that when there is green practice, it will increase positively consumer purchase decision of products. Based on the findings of this study, it is concluded that green marketing plays a crucial role in influencing consumer purchase decision of products.

## 6. Recommendations

Based on the findings of the study, the following recommendations were made:

- i Manufacturers of green products should continuously improve the contents of their products to satisfy consumer needs and wants with additional new features to maintain high quality to attract patronage.
- ii Manufacturers and marketers should pay attention to prices of green products (environmentally friendly products) to ensure that they are prices according to their quality to attract consumer patronage.
- iii Manufacturers and marketers should continuously launch aggressive and extensive promotional campaigns that involve effective advertisements, because consumers are increasingly considering to buy products that are environmental friendly. They should pay attention to their products by increasing awareness and knowledge about the benefits of environmental friendly products in protecting environment and consumers' health.

## REFERENCES

1. Ajen, I. (1991). The theory of planned behaviour: Organizational behaviour and human decision processes, 50(2), 179-211.
2. Anyani, S. and Perdhana, M. (2021). Green marketing mix effects on consumers' purchase Decision: A literature study. *Diponegoro Journal of Management*, 10(4), 1-8.
3. Ashoush, N. and Kortam, W. (2022). The impact of green marketing strategies on consumers' purchasing intention. *The Business and Management Review*, 13(2), 263-275.
4. Attih, O. B. (2013). Application of marketing concept in the hospitality and tourism industry in Akwa Ibom State, Nigeria: An evaluation. *IOSR Journal of Business and Management*, 14(2), 17-22.
5. Attih, O. B. (2019). Determinants of brand loyalty among consumers' in the telecommunication industry in the faculty of management sciences, Akwa Ibom State University, Nigeria. *British Journal of Marketing Studies*, 7(2), 29-39.
6. Attih, O. B. (2020). Packaging attributes and consumer patronage of beverages in Akwa Ibom State, Nigeria. *British Journal of Marketing Studies*, 8(6), 1-18.
7. Attih O. B. and Essien M. O. (2023). Packaging materials and consumer purchase decision of tea product in Akwa Ibom State, Nigeria. *International Journal of Advances in Engineering and Management*, 5(4): 1156-1162.
8. Attih, O. B. (2024). Pricing strategies and consumer purchase decision of products in Department of Marketing, Akwa Ibom State University, Obio Akpa campus, Nigeria. *British Journal of Management and Marketing Studies*, 7(1), 196-208.

9. Attih, O. B., Bassey, C. B. and Akpan, U. U. (2023). Influence of product innovation on consumer purchase decision of mobile phones in Akwa Ibom State, Nigeria. *American Journal of Business and Management*, 6(9), 90-97.
10. Bhardwaj, A., Garg, A., Ram, S., Gajpal, Y. and Zeng, C. (2020). Research trends in green product for environment: A bibliometric perspective. *International Journal of Environmental Research and Public Health*, 17(22), 1-21.
11. Chen, Y., Huang, A., Wang, T. and Chen, Y. (2020). Greenwash and green purchase behaviour: The mediation of green brand image and green brand loyalty. *Total Quality Management*, 3(2), 194-209.
12. Djatimiko P. and Pradona, R. (2015). Brand image and product price. Its impact for Samsung smartphone purchasing decision. *Promedia Social and Behavioural Sciences*, 221-227.
13. Etetor, H. H., Attih, O. B. and Udoka, I. F. (2024). Corporate social responsibility and customer loyalty of Champion Breweries products in Uyo, Akwa Ibom State, Nigeria. *International Journal of Innovative Studies*, 8(1), 1-26.
14. Hari, A., Sari, N. and Khairi, A. (2023). The relationship between green marketing mix and purchasing decisions: The role of brand image as mediator. Retrieved from <http://creativecommons.org/licenses/by-nc/4.0/>.
15. Kotler, P. and Armstrong, G. (2016). *Principles of marketing*. New Jersey: Pearson Education.
16. Olarewaju, O. and Ganiyu, I. (2021). Handbook of research on climate change and sustainable financial sector. Retrieved from [www.igi-global.com](http://www.igi-global.com)
17. Poornima, A. and Sowmiya, M. (2023). Impact of green marketing mix on consumer purchase decision intention with special reference to Chennai supermarkets. *European Chemical Bulletin*, 12 (2), 2120-2129.
18. Preethan, J. and Mohan, N. (2019). A study of the impact of social media on consumer's purchase decision. *Adalya Journal*, 8(10), 225-231.
19. Pritulská, M., Motuzka, I., Koshelyk, A., Motuzka, O., Yashchenko, L., Jarossova, M., Krnáčová, P., Wyka, J., Malczjk, E. and Habanova, M. (2021). Consumer preference on the market of plant-based milk analogues. *Journal of Food Sciences*, 15(2), 131-142.
20. Ramayah, T., Lee, W., and Mohamah, O. (2010). Green product purchase intention: Some insights from developing country. *Resource, Conservation and Recycling*, 54(12), 122-140.
21. Silaban, S., Sinulinga, S. and Fadli (2021). The effect of green marketing on purchase decisions and brand image as intervening variables (case study at: Pt. Sari coffee Indonesia- Starbucks Focal Point Medan). *International Journal of Research and Review*, 8(1), 159-168.
22. Suhaily, L., Darmoyo, S., Boentoro, S. and Dermawan, P. (2020). Effect of green product, green price, green promotion and green place to purchase decision. *Sumerianz Journal of Business Management and Marketing*, 3(8), 107-115.
23. Thomas, J. (2023). A study on the impact of green marketing practices on consumer buying behaviour in Twin cities. *Joseph Journal of Multidisciplinary Studies*, 6-10.
24. Walpole, R. (1974). *Introduction to statistics*. New York: Macmillan Publishing Company.
25. Yazdanpanah, M. and Forouzani, M. (2015). Application of the theory of planned behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342-352.