

## GREEN MARKETING STRATEGIES AND SALES PERFORMANCE OF FRUIT DEALERS IN UYO METROPOLIS, AKWA IBOM STATE, NIGERIA

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### ABSTRACT

*The study analyzed green marketing strategies and sales performance of fruit dealers in Uyo Metropolis, Akwa Ibom State, Nigeria. The objectives were to examine the effect of eco-friendly product and eco-preservation material on sales volume fruits. The study adopted descriptive survey research design. The population for the study is made up of all the fruit sellers in Uyo Metropolis. However, the population is unknown as there is no document stating the population of fruit sellers in Uyo Metropolis, Akwa Ibom State. Thus, Topman statistical formula derived 369 sample size for the study in Uyo metropolis. The study adopted judgmental sampling technique. Structured questionnaire was used to collect data for the study. The objectives were analyzed with descriptive statistics and the hypotheses were tested with simple regression analysis model. The empirical result revealed that there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis. Also, eco-friendly preservation material has significant effect on sales volume of fruits in Uyo metropolis. Based on the result, the researcher concludes that green marketing (eco-friendly products and eco-friendly preservation materials) have significant effect on sales volume of fruits in Uyo metropolis. The researcher recommended that since there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis. In effect, fruit marketers must avail themselves of this golden opportunity to identify the need of best practices of green marketing and adopt them to increase their sales.*

## Introduction

The environmental conscious consumption is becoming more and more prevalent in the global marketplace as a result of increased worries about sustainability, climate change, and eco-friendliness. Businesses are therefore under pressure to implement green marketing techniques that not only reduce their environmental impact but also cater to the changing tastes and values of their clientele. Being a major player in the world food market, the fruit business is not an exception to this pattern (Jonah, Ekpo & Unanam, 2023). Millions of people in Nigeria, especially those living in rural regions, depend on the fruit business for their lives. In the supply chain, fruit merchants in particular are essential since they link farmers and customers. Intense competition, shifting consumer preferences, and volatile market prices are just a few of the many difficulties the business encounters (Chikere, 2023).

Green marketing practices is a marketing orientation that aimed at satisfying customer needs and wants without damaging the natural environment (Onditi, 2016). It is a marketing orientation that takes the environment into consideration while striving to satisfy customer needs and wants. Green marketing is the process of discovering, forecasting, and meeting client requirements in a profitable and sustainable way, as defined by Chen and Chai (2010). In addition, the term Green Marketing was used by Chan (2013) to describe the practice of advertising products widely accepted to be environmentally benign. It entails a wide variety of actions, such as adjusting products to include the green element, altering material sourcing and selection to ensure green procurement practices, adjusting production methods to reduce carbon emissions, adjusting packaging to include sustainable elements, and adjusting marketing and advertising to highlight environmental benefits (Unanam, 2014).

The practice of green marketing is growing greatly as increasing numbers of consumers are willing to back their environmental consciousness with their value. The public tends to be skeptical of green claims to begin with and companies can seriously damage their brands and their sales if a green claim is discovered to be false or contradicted by a company's other products or practices (Taylor, Chuang & Yang, 2013). Presenting a product or service as green when it's not is called green washing. Although, business organizations have a responsibility to satisfy the human needs and wants, however, preserving nature is highly necessary. Thus, the current ecological challenges require the managers to formulate strategies that can control pollutions and preserve the natural resources. Saxena and Khandelwal (2012) opined that green economy is a profitable sector that comprises green product, organic agriculture, renewable energy, clean technology and natural resources, which suggest that marketers must seize this opportunity in order to gain competitive advantage. Even though it is a voluntary basis, more business firms are taking this initiative and it becomes a main agenda and important strategic concerns among companies. The remarkable growth of new green industries indicated the positive attention by the marketers (Jonah, Ekpo & Unanam, 2023). The agriculture industries are also responding by producing foods without harming the environment and consumers health. The hotel and tourism industries also involved in changing their business towards green hotel and eco-tourism. In addition, the concept of purchasing green products become popular as the numbers of consumers that are willing to purchase environmentally-friendly products are significantly increasing. While many companies are struggling to form green business strategies, much has not been discussed in literature on the impacts of green marketing strategy on performance of fruit dealers in a developing nation with reference to fruit dealers in Uyo metropolis as such this area can be explored further. Given this, the study is aimed at filling this gap.

## Statement of the Problem

Despite the potential and benefits of green product and green marketing, Peattie & Crane (2005) revealed that green marketing has encountered some challenges. Misleading advertisements, false promises, unclear labels, and irregular performance has increased the confusion among consumers, which cause a decreasing number of green products launched. This situation is labelled as greenwashing. Pillai & Patil (2022) reported that “greenwashing” is a situation in which firms claim that a product is environmentally-friendly products, but in reality, the product does not perform as it promised. The consumer skepticism on green product claims has influenced their attitudes towards green products and creates confusion among consumers as supported by (Nyilasy, Gangadharbatla & Paladin, 2023).

One of the drawbacks of green marketing strategy lies in the difference between the concern for the environment and translating this concern into actual purchase decisions. Most of the market research (Pillai & Patil, 2022; Nyilasy, Gangadharbatla, and Paladin, 2023) carried out would bear testimony to the fact that consumers prefer environmental friendly products and they indeed value preserving the environment. But the purchase decisions of customers would not be solely governed by their concern for the environment (Unanam, 2014). It cannot be denied that the products in the mainstream markets over the years have improved their quality and reduced the impact on environment. Despite the growing demand for eco-friendly products and services, many fruit dealers in Uyo continue to struggle with low sales performance, largely due to their inability to effectively adopt and implement green marketing strategies. The lack of awareness and understanding of green marketing principles, coupled with limited resources and intense competition, have hindered the ability of fruit dealers to capitalize on the emerging trend of environmentally conscious consumerism (Dibie, Unanam, Uwasomba & Onyemali, 2018). Consequently, fruit dealers are missing out on potential sales opportunities and revenue growth, while also contributing to environmental degradation and unsustainable practices.

### **Objectives of the Study**

The main objective of this study was to examine the effect of green marketing strategies and sales performance of fruit dealers in Uyo Metropolis, Akwa Ibom State, Nigeria. However, the specific objectives were to:

examine the effect of eco-friendly product on sales volume fruits.

ascertain the effect of eco-preservation material on sales volume of fruits.

### **Significance of the Study**

The study will be quite significant to dealers of fruits, NAFDAC, consumers of fruits and researchers. This is because it will enable them to understand the importance of green marketing their market growth, sales volume and patronage. The study will also enable them to know the green marketing strategies to be adopted in order to increase their market growth.

The findings of this study will provide valuable insights for fruit dealers, policymakers, and other stakeholders in the fruit industry, highlighting the potential benefits of adopting green marketing strategies in improving sales performance and contributing to a more sustainable future. The study will also serve as an important tool to green market consumers for their easy and comfortable marketing. The study will help readers and scholars to have a knowledge of green marketing strategies on sales volume. The findings of the study will be used as references for future research work.

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## 2.0 REVIEW OF RELATED LITERATURE

### Concept of green marketing

Green marketing is a compound name that encompasses ecological marketing, sustainable marketing, green consumption and all of which require incorporating environmental considerations into marketing efforts (Crane, 2019). The concept of green marketing involves a variety of activities aimed at protecting the environment, upholding consumer rights, and satisfying consumer needs and desires. In today's society, consumers are increasingly concerned about their safety and demand environmentally friendly products, contributing to a greener world. Green marketing addresses issues such as deceptive practices, grey marketing, and food contamination while also shielding customers from unethical business practices. Nowadays, a wide range of stakeholders, including governments, agencies, NGOs, and commercial organizations, are committed to this responsibility. Unfortunately, many people still believe that green marketing only pertains to the advertising or promotion of products with environmental features. Additionally, consumers often associate green marketing with terms like phosphate-free, recyclable, refillable, ozone friendly, and environmentally friendly (Matin & Alauddin, 2016).

Stanton and Futrell (2018) define green or environmental marketing as actions intended to replace current needs and wants with minimal harmful impact on our environment. Chan (2013), claim that there is no single marketing tool that would be appropriate for all firms. Rather, strategies should be different based on different markets and the degree of consumer concern on the environment. Green promotion is marketing of products with a primary focus on environmental safety, which includes commercial operations like green advertising, green packaging and green production (Unanam, 2014). Any form of advertising that calls attention to environmental concerns on the part of a company and that may have the added benefit of swaying customer preference in favor of a given brand is known as green marketing (Peattie & Charter, 2023).

### Eco-friendly products

Eco-friendly products are made with minimal impact on the environment, humans, and animals. They are often certified by third-party organizations to verify their sustainability claims (Akenji, 2014). Sustainable consumption means choosing products responsibly, with the environment in mind. Eco-friendly products have a lower impact on the environment throughout their life cycle, i.e., from the raw materials used in their manufacturing, to their design, transport to the end-user, their length of use and their capacity to be recycled. There is no set standard of what makes an eco-friendly product. But here are some criteria which can help identify products that, though sometimes more expensive, are likely to be more sustainable and will save you money in the long run (Dibie et al., 2018). An eco-friendly product can also be an ethical product that takes into account the working conditions in which the product has been designed and distributed, or even animal welfare. Eco-friendly products should possess among others the following features: 1. Natural-origins products, 2. Energy-efficient products, 3. Sustainable products, Local products, 5. Ethical and fair-trade products

### Eco-friendly preservation materials

Eco-friendly materials are materials that are produced, used, and disposed of without harming the environment. They can help to reduce a carbon footprint, conserve natural resources, and promote biodiversity. Some examples of eco-friendly materials include (Alikor & Anele, 2022):

Recycled materials: Recycled plastics, glass, paper, and metal can be reused and recycled.

Renewable materials: These materials are derived from renewable resources and are replenished naturally. Examples include sustainably harvested wood, bamboo, and cork.

Natural materials: Natural materials and ingredients are better than those made from plastics, synthetic materials, and dangerous substances. Examples include organic cotton, natural fibers, and plant-based packaging.

Eco-friendly packaging is made from materials that are easy to recycle and have minimal impact on natural resources or energy consumption. A product can be classified as "green" if its production process is environmentally friendly and minimizes harm to the environment. It is the responsibility of every business to reduce environmental pollution during manufacturing. This includes sustainably sourcing raw materials to preserve natural resources. Effective waste management is crucial in this regard (Unanam, 2014). Businesses should also focus on eco-friendly product design and packaging that minimize pollution and potential hazards. Despite the significant initial costs associated with these improvements, they are justified by the potential increase in product sales. Implementing reverse logistics, where customers return used packaging, wrapping, and products to the business, can greatly contribute to environmental preservation (Arseculeratne and Yazdanifard, 2021)..

Embracing eco-friendly and environmentally friendly materials offers a range of advantages. These materials are designed to minimize harm to the environment as they are often made from renewable resources, requiring less energy and water during production. They also emit fewer greenhouse gases and pollutants compared to conventional materials (Onditi, 2016). Since they are often sourced from renewable or recycled materials, eco-friendly materials prioritize the efficient use of resources. These materials promote resource conservation through efficient manufacturing processes, waste reduction, and recycling initiatives, thereby supporting a circular economy (Chikere, 2023). These materials also possess energy-saving properties. For example, energy-efficient insulation materials help reduce heat transfer, minimizing the need for heating or cooling. In addition, eco-friendly materials are often free from harmful substances like volatile organic compounds (VOCs) and formaldehyde. Using such materials in construction, furniture, and home decor can lead to improved indoor air quality and a healthier living environment (Jonah, Ekpo & Unanam, 2023).

### **Principles of Green Marketing**

There are main principles in marketing that companies adapt to ensure that their primary objectives are met. Green Marketing, just like any of the existing practices available have their own guidelines that needs to be adhered to. Ottoman et al., (2006) states that there are three C's essential namely Consumer Value position, Calibration of consumer knowledge and Credibility of the Product Claims.

#### **a. Consumer value position.**

This principle states that, in order for an organization to establish a specific product as an authentic green product, it should be able to suffice five requirements. This includes the efficiency of the product as well as its being cost effective, it being safe and healthy to the user, its ability to meet the needs of the consumer, the image and its ability to make life easier. It is important that the development and choice of green products needs to be aligned to its value to the consumers (Chikere, 2023).

#### **b. Calibration of consumer knowledge**

One of the marketing strategies that companies employ in their marketing is the use of compelling slogans as well as taglines that tries to connect the said green products to the values of the consumers. It was able to tailor its programs to what they feel would be essential to the consumer and thus allowing them to be aware of the green products. Nowadays, marketing makes sure that the connection they are driving at is direct to the point and not open for different interpretations.

c. Credibility of product claims

This principle asserted that to make sure that the campaign for the green products is successful, it should be able to provide credibility to the consumer. It should be able to ensure that the consumer received what he was promised of. It is important that the marketing of the product will not mislead the consumers (Chikere, 2023).

Reasons for adopting green marketing

There are many reasons why companies adopt Green Marketing. Using the neoclassical economist point of view, adopting such program would help the interests of the shareholders. Another point of view, the institutional theory on the other hand focuses on ensuring that they meet their own policies (Hoffman, 1997). According to this theory, companies are not always after increasing their profits. It is also important to them to gain the confidence of external institutions especially as far as legitimacy is concerned. Companies chooses green their products because they want to be responsible to their community. They may not be guaranteed an increase in profit, but in the long run, they are very much aware that socially responsible policies would eventually result to economic payoffs.

The stakeholder theory states that companies need to make sure that their policies is customized to the needs of various stakeholders. As such, companies choose to green their processes as well as their products and policies if the stakeholders demand for it. Adding an environmental component to the company would not be implemented properly if it is purely driven by financial gain. It is important that in upholding green marketing, an entrepreneurial approach which depends on other criteria, not economic in nature is to be undertaken. To better understand why companies, have to choose whether or not they will adapt green policies, it is also important to look into the overall gain that one gets from these policies. It is a business decision not to engage in activities if their results would yield non excludable benefits. In the green marketing context, it should be noted that most of the benefits generated are actually non excludable ones (Unanam, 2023). In addition, when one adopts the said process, the company expects higher costs. Green marketing is able to provide justification in this aspect. The green products should then be priced at their premium. In doing so, they will be able to convert the environmental benefits to monetary benefits. In a way, this means that green marketing allows the company to be able to enact the benefit through the reputation they build making consumers support them more. It should be noted that the trend nowadays is for consumers to demand for green products. Studies also had revealed that consumers are willing to pay more premiums for green products.

**Theoretical Framework**

i. Legitimacy theory

The research was fundamentally based on Legitimacy theory. This theory, which is a crucial element of the social contract whether it is implicit or explicit asserts that businesses engage in agreements with the general public. The essence of this social compact is conveyed through our collective norms and values. Given the dynamic nature of these expectations,

they evolve over time. For a business to act ethically, it must adhere to the standards established by the community members. A corporation that meets public expectations will be perceived as authentic, while one that does not will be viewed otherwise. It is only a truly authentic business is entitled to legally utilize the community's human and natural resources. Consequently, to maintain their legitimacy, organizations must adjust to the evolving demands of the public. Utilizing legitimacy theory formulated and tested hypotheses linking various elements of environmental claims in green marketing to the sustainability of the advertisements themselves. The authors examined the content of 383 green magazine advertisements and confirmed, in line with legitimacy theory, that the greater the environmental friendliness of the advertisement, the more legitimate the concerns it presents. The synthesis of legitimacy theory, stakeholder theory, and institutional theory offers an explanation for corporate social responsibility (CSR) initiatives. The authors recognized the prevalent application of all three theories in CSR research as a testament to their relevance. Bhattacharyya (2015) delves deeper into CSR in developing economies through the lens of legitimacy theory. The study surveyed Indian managers regarding their views on 18 social and 16 contemporary environmental issues. The findings revealed that respondents were highly concerned about social responsibility and strongly endorsed environmental commitments. Many individuals rely on businesses to consider the broader implications of their actions.

### **Contingency Theory**

The contingency theory draws the idea that there is no one or single best way or approach to manage organizations. Organizations should then develop managerial strategy based on the situation and condition they are experiencing. Therefore, in this study, besides the systems perspective, contingency approach and the other main strategic management theories mentioned above, the resource-based theory or view (RBV) of the firm's competitive advantage in particular will be the underlying theoretical foundation applied and fundamental basis of the variables and their ensuring relationships that are being studied. This is because of the nature of the Nigeria polity that exposes all firms to high cost of doing business in terms of internal power generation and high-level corruption. As a result of this, this study will focus especially on the internal attributes (i.e. resources, capabilities and systems) of the organization towards attaining competitive advantage. Hence, it justifies the adoption of RBV as the main research tenet.

### **Empirical Review**

Chikere (2023) studied green marketing practices and sales performance of food and beverage firms in Port Harcourt. The study sought to test four hypotheses and provide answers to four research questions. One hundred and forty food and beverage companies listed with the Rivers State Ministry of Commerce and Industry make up the study's population. Using the method developed by Krejcie and Morgan in 1970, a sample size of 103 was calculated. Both descriptive and inferential statistical techniques were employed to analyze the information acquired for this study. Using SPSS, we developed many hypotheses and put them to the test using the Spearman Rank Correlation Method (SPSS). The study's results demonstrated a positive correlation between green marketing strategies and the financial success of Port Harcourt's food and drink companies. Based on the findings, it's clear that eco-friendly advertising is the key to retaining customers and attracting new ones, all while protecting the planet.

Alabo and Anyasor (2021) studying how green marketing in Nigeria's South-East region has affected the long-term viability of breweries there. South-East of Nigeria. Across all four

tenets of sustainability (green product, green pricing, green location (distribution), and green marketing), breweries in South-East Nigeria were shown to be significantly and positively linked. Kuhn (2001), conducted a study on the effect of green marketing advertising on sales volume of an organization using primary data, the data was estimated using correlational coefficient. It was observed that there is a positive relationship between green marketing advertising and sales volume. It was recommended that firms should engage in green marketing advertising for increase in sales volume. Bukhari (2011) conducted a study to find out how consumer behavior is influenced by Green Marketing by Companies. The research study took place in Udhampur district in Jammu & Kashmir, during the spring 2011. A questionnaire was designed in order to find out how people perceive green marketing and how aware they are of the environmental contribution” that is being made by the companies. The results from this illustrates that companies need to increase their communication with the customers on going green, and that attributes like price and quality are more important than “environmental responsibility.

Muntaha and Marike (2014) conducted a study aimed to investigate whether consumer attitudes influence consumers’ purchase behaviour of green products. A quantitative approach was used for data gathering. Data was collected by means of self-administered questionnaires among 200 students between the ages of 18 to 23. Data generated was analyzed by using statistical methods such as simple and multiple linear regressions. The result indicated that social influence, environmental awareness and price, positively influence individuals’ attitudes towards green products. The recommended that marketers should have a clearer understanding of the implications of social influence, environmental awareness and price towards green products in their locality.

### 3.0 METHODOLOGY

This study is basically a descriptive survey research design and therefore required the use of survey research design. In this descriptive research, a questionnaire was designed to gather information relevant to this project topic. Data was obtained through questionnaire administration and personal interview. Descriptive research design is important in this kind of research because it has the ability to clearly explain and organize complex phenomenon in a simpler and understanding form. The population for the study is made up of all the fruit sellers in Uyo Metropolis, Akwa Ibom State. However, the population of all the fruit sellers in Uyo Metropolis, Akwa Ibom State is unknown as there is no document stating the population of fruit sellers in Uyo Metropolis, Akwa Ibom State. To ensure the determination of accurate sample size, the statistical formula derived by Topman formula. The formula states thus:

Topman formula,  $n = (Z^2 pq)/e^2$

Where:  $n$  = sample,  $z$  = Standard deviation (or the desired 1.96)

$e$  = estimated standard error of 5%

$p$  = Percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

$q$  = Percentage against a choice (out of 10 fruit sellers 6 were environmentally conscious)

$n = ((1.96)^2 \cdot 0.6 \times 0.4)/(0.05 \times 0.05)$ ,  $n = ((1.96)^2 \cdot 0.6 \times 0.4)/(0.05 \times 0.05)$ ,  $n = ((3.8416)^2 \times 0.24)/0.0025$ ,  $n = 0.921984/0.0025$ ,  $n \approx 368.7$

However, the sample size of the study comprised of 369 (three hundred and sixty-nine) fruit sellers and managers of fruit enterprises in Uyo metropolis. In effect, the study adopted

judgmental sampling technique to select 369) fruit sellers and managers of fruit enterprises in Uyo metropolis. This technique helped the researcher to gather information from reliable fruit sellers to examine green marketing and sales performance. Structured questionnaire was used to collect data for the study. The questionnaire was drawn in-line with the objectives of the study. In designing the questionnaire, the researcher used 4point likert scale response option namely: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1. The questionnaire was designed / structured based on the specific objectives of the study. Primary data sourced through administration of structured questionnaire to target respondents were used for the study. The objective 1 and 2 were analyzed with descriptive statistics such as 4-point likert scale, mean, standard deviation, frequency, percentage. The hypotheses were tested with simple regression analysis model.

4.0 DATA ANALYSIS AND DISCUSSION OF FINDINGS

Effect of eco-friendly products on sales volume of fruits

Table 1: Effect of eco-friendly products on sales volume of fruit

Statements	SA	A	D	SD	Total	$\bar{x}$
Eco-friendly materials are used to preserve fruits	115					
(31.2)	90					
(24.4)	68					
(18.4)	101					
(26.0)	369					
100	2.60					
Natural-origins fruits is what I deal with always	141					
(38.2)	91					
(24.7)	70					
(19.0)	62					
(18.1)	369					
100	2.82					
Sustainable, ethical and fair-trade fruits is what I deal with always	157					
(42.5)	132					
(35.8)	57					
(15.5)	23					
(6.2)	369					
100	3.14					

Source: Field Survey, 2024

Decision rule: Accept a mean value  $\geq 2.5$

Table 1 showed the effect of eco-friendly products on sales volume of fruits in the study area. The result showed that 42.5% of the respondents strongly agreed that Sustainable, ethical and fair-trade fruits is what they deal with always and was accepted at the mean value  $3.14 > 2.5$ . Also, 38.2% of the respondents strongly agreed that natural-origins fruits are what they deal with always was accepted at a mean value  $3.05 > 2.5$ . More so, 31.2% of the respondents strongly agreed that eco-friendly materials are used to preserve fruits and was accepted at the mean value  $2.82 > 2.5$ . However, 26.0% of the respondents strongly disagreed that eco-friendly materials are used to preserve fruits. As reflected in the result, all the items in the table were accepted, since the mean value were all above 2.5 benchmark. Thus, eco-friendly products significantly affect sales volume of fruits in the study area.

Effect of eco-friendly preservation materials on sales volume of fruits

Table 2: Effect of eco-friendly preservation materials on sales volume of fruits

Statements	SA	A	D	SD	Total	$\bar{x}$
Recycled plastics, glass, paper and metal is used for packaging the fruits	169					
(45.8)	123					
(33.3)	42					
(11.4)	35					
(9.5)	369					
100	3.15					
Waste reduction and recycling initiatives are used for the fruits	136					
(36.9)	144					
(39.0)	53					
(14.4)	36					
(9.7)	369					
100	3.02					
Energy-efficient insulation materials minimize the need for heating or cooling effect of the fruits	155					
(42.0)	137					
(37.1)	44					
(11.9)	27					
(9.0)	369					
100	3.12					

Source: Field Survey, 2024      Decision rule: Accept a mean value  $\geq 2.5$

From table 2 above, the result revealed that 45.8% of the respondents strongly agreed that recycled plastics, glass, paper and metal is used for packaging fruits and has a mean value 3.15 and was accepted at  $\bar{x} > 2.5$ . This was followed by 42.0% of the respondents who agreed that energy-efficient insulation materials minimize the need for heating or cooling effect of the fruits and has a mean value of 3.12 and was accepted at  $\bar{x} > 2.5$ . Also, 36.9% of the respondents who agreed that waste reduction and recycling initiatives are used for the fruits and has a mean value of 3.02 and was accepted at  $\bar{x} > 2.5$ . However, 14.4% of the respondents disagreed that the waste reduction and recycling initiatives are used for the fruits. It is shown in this result that all the items in the table were accepted as the use of eco-friendly preservation materials effects on sales volume of fruits in Uyo Metropolis

Sales performance of fruits in Uyo

Table 3: Sales performance of fruits in Uyo

Statements	SA	A	D	SD	Total	$\bar{x}$
Dealing with eco-friendly fruits increases level of consumer patronage	200					
	54.2%	101				
	27.4%	40				
	10.8%	28				
	7.6%	369				
	100	3.28				
The adoption of eco-friendly preservation method promote sales volume	214					
	58.0%	86				
	23.3%	39				
	10.6%	30				
	8.1%	369				
	100	3.31				

Source: Field Survey, 2024      Decision rule: Accept a mean value  $\geq 2.5$

Table 3 examined the sales performance of fruits in Uyo. And the result revealed that, 58.0% of the respondents strongly agreed that adoption of eco-friendly preservation method promote sales volume. This was followed by 54.2% of the respondents who strongly agreed that dealing with eco-friendly fruits increases level of consumer patronage. Judging from the result with the rule that a mean value  $> 2.5$  is accepted while a mean  $< 2.5$  is rejected. From the result, two (2) out of two items had a mean value greater than 2.5 (3.28, 3.31), and none of the items had a mean value less than 2.5. In effect, the researcher concluded that, there is high rate of sales performance of fruits in Uyo metropolis.

Test of Hypotheses

Ho1: There is no significant effect of eco-friendly products on sales volume of fruits

Table 4: Simple regression analysis of effect of eco-friendly products on sales volume of fruits

Variable	Parameters	Coefficient	Std error	Tcal – value
Constant	$\beta_0$	1.826	0.213	8.590***
Eco-friendly products (X1)	$\beta_1$	0.676	0.044	15.428***
R-Square	(R <sup>2</sup> )	0.418		
Adjusted R – Square	(R-2)	0.417		
F – Statistics	238.016			
F – Probability	0.000			
Durbin-Watson stat	1.870			

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 = 1.968, df = 367, Dependent Variable: salesvolume (Y), Predictors: (Constant), ecofriendly (X). Source: Field Survey, 2024 (SPSS Version 23)

The estimate value of eco-friendly products (X1) was statistically significant and positively related to sales volume of fruits in Uyo at 1 percent level. Thus, a unit increase in eco-friendly products leads to 0.676 unit increase in sales volume of fruits in Uyo. The result revealed that at  $p=0.000 \leq 0.05$  level of significance and a degree of freedom (df) 367, the T-cal value was 15.428 and T-tab value was 1.968. As shown in the result, the calculated T-calculated is greater than the tabulated t-distribution, therefore, the null hypothesis was rejected in favour of the alternate hypothesis. This means that, there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis. The (R<sup>2</sup>) coefficient of multiple determinations was high with the value of 0.418, implying that, 41.8% disparity in dependent variable was elucidated by changes in the independent variable while 58.2% were unexplained by the stochastic variable. This implies that, the independent variable (eco-friendly products) was able to explain 41.8 percent disparities in dependent variable (sales volume of fruits) while 58.2 percent was explained by the stochastic variable. The R-2 adjusted value of 41.7% was observed indicating a goodness of fit of the regression model adopted in this study which is statistically significant at 5% probability level. The Durbin-Watson stat value was 1.870 which is close to 2.5, implying that there is no evidence of autocorrelation. F-stat value of 238.016 with F-prob. value of 0.000 against 1.968 t-table value and 0.05 was observed from the regression result, indicating a goodness of fit of the regression model adopted in this study which is statistically significant at 5% probability level. Thus, the researcher accepted that there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis.

Test of Hypothesis 2

Ho2: There is no significant effect of eco-friendly preservation materials on sales volume

Table 5: Simple linear regression result of effect of eco-friendly preservation materials on sales volume

Variable	Parameters	Coefficient	Std error	Tcal – Value
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Constant	$\beta_0$	1.783	0.222	7.896***
Eco-friendly preservation materials (X1)	$\beta_1$	0.744	0.039	18.899***
R-Square (R2)		0.519		
Adjusted R – Square (R-2)			0.518	
F – Statistics Value			357.161	
F – Probability value			0.000	
Durbin Watson-stat			2.069	

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 = 1.968 df = 367, Dependent Variable: customerpatronage (Y), Predictors: (Constant), Facebook (X)

Source: Field Survey, 2024 (SPSS Version 23)

The result shows that, eco-friendly preservation materials (X1) was statistically significant and positively related to sales volume of fruits in Uyo metropolis at 1 percent significant level. The coefficient of eco-friendly preservation materials (X1) of 0.744, shows that a unit increase in use of eco-friendly preservation materials, holding other variables constant, will increase sales volume by 0.744unit. From the result, the t-cal value of eco-friendly preservation was 18.899\*\*\* while the T-table value was 1.968, since the t-table value is less than t-calculated value in absolute terms, the researcher accepts the null hypothesis that, eco-friendly preservation material has significant effect on sales volume of fruits in Uyo metropolis.

The coefficient of determination (R2) was quite high with a value of 0.519 which indicates that 51.9% changes in dependent variable can be explained by the changes in the independent variable, while 48.1% can be explained by the stochastic terms in the model. This implies that the independent variable (eco-friendly preservation materials) can only explain 51.9 percent of changes in sales volume, leaving 48.1% percent unexplained. The F-stat value of 357.161 and F-stat 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 the alternative hypothesis thus, eco-friendly preservation material has significant effect on sales volume of fruits in Uyo metropolis.

## 5.0 CONCLUSION

The empirical result revealed that there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis. Also, eco-friendly preservation material has significant effect on sales volume of fruits in Uyo metropolis. Based the result, the researcher concludes that green marketing (eco-friendly products and eco-friendly preservation materials) have significant effect on sales volume of fruits in Uyo metropolis.

## 6.0 RECOMMENDATIONS

Having analyzed the result of the findings, the following recommendations are put forward to help organizations.

The result revealed that there is significant effect of eco-friendly products on sales volume of fruits in Uyo metropolis. In effect, fruit marketers must avail themselves of this golden opportunity to identify the need of best practices of green marketing and adopt them to increase their sales.

Marketers should emphasis on providing clear information about green products and eco-labels to promote consumer familiarization with products and enhance their knowledge of green products.

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## RESEARCH QUESTIONNAIRE

Dear Respondents,

I am currently carrying out a research project titled, “Green marketing strategies and sales performance of fruit dealers in Uyo Metropolis, Akwa Ibom State, Nigeria. Kindly respond to the questionnaire items with all sincerity, as your responses will be treated with utmost confidentiality and used only for the purpose of the study which is purely academic.

Thank you,

(Researcher)

S/no.	Statements	SA	A	D	SD
	Eco-friendly products				
1	Eco-friendly materials are used to preserve fruits				
2	Natural-origins fruits is what I deal with always				
3	Sustainable, ethical and fair-trade fruits is what I deal with always				
	Eco-friendly preservation materials				
4	Recycled plastics, glass, paper and metal is used for packaging the fruits				
5	Waste reduction and recycling initiatives are used for the fruits				
6	Energy-efficient insulation materials minimize the need for heating or cooling effect of the fruits				
	Sales performance of fruits in Uyo				
7	Dealing with eco-friendly fruits increases level of consumer patronage				
8	the adoption of eco-friendly preservation method promote sales volume				