Eco-awareness and Consumer Buying Behaviour of Fast-Moving Consumer Goods in Akwa Ibom State

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ABSTRACT
The objective of the study was to investigate the influence of eco-awareness on consumer buying behaviour of fast-moving consumer goods (FMCGs) in Akwa Ibom State. The survey research design was adopted to collect data from a sample of 384 respondents determined using the Walpole (1974) formula for unknown population and respondents were selected using convenience sampling technique. Data was collected through online Google form questionnaire and analyzed using tables and simple percentage. While hypotheses were tested using simple regression analysis with the help of SPSS 25. The results showed that each eco-awareness dimensions (environmental education, eco-labeling and attitude) had significant positive relationship with consumer buying behaviour. The results revealed that the regression coefficient (R^2) was =0.899, indicating that environmental education, eco-labeling and attitude combined to explain 89.9% variation in consumer's buying behaviour of fast-moving consumer goods (FMCGs), while the remaining 10.1% variation in consumer's buying behaviour could be as a result of factors that cannot be accounted for in this study. It was recommended amongst others that manufacturers, Government Agencies, NGOs and other stakeholders involved in environmental consciousness should raise awareness about the environmental impact of fast-moving consumer goods by teaching the people about sustainable practices, waste reduction, and the benefits of choosing eco-friendly products in Akwa Ibom State.

Keywords: *Eco-Awareness, Environmental Education, Eco-labeling, Attitude, Buying Behaviour, Fast Moving Consumer Goods, Akwa Ibom State.*

INTRODUCTION
The growth of environmental awareness is now recognized as an important aspect of consumer behaviour. Green marketing came into existence during the 1980's as a result of environmental degradation (Olufunmi, 2022). Environmental issues are among

the most talked about issues all over the world, and they have assumed a fast pace in the corporate sector. (Gupta, Singh & Thalkur, 2013). Very many people are now aware of the common threats the environment pose. These include global warming, pollution, ozone layer depletion, scarcity of natural resources.

According to Chinda and Umeh, (2023), Green consumers are those who are socially responsible and prioritize environmental conservation in their purchasing decisions. The new green marketing strategies that marketers have adopted include the usage of environmental knowledge, labeling and certifications, and attitudes and beliefs.

Thus, using green marketing strategies are essential for changing consumers' perceptions and encouraging them to buy eco-label products (Maheshwari et al., 2020). It is against this background that this study was designed to examine the effect of eco-awareness on consumer buying behaviour of fast-moving consumer goods in Uyo, the capital of Akwa Ibom State in Nigeria, focusing on three key dimensions: environmental education, eco-labeling and certification, and attitudes and beliefs.

Statement of the Problem

Environmental sustainability has become a crucial problem around the world, influencing many aspects of human life, including consumer behaviour. Fast-moving consumer goods (FMCGs) are a large market segment, characterized by frequent purchases and high consumption rates. It is therefore important for FMCG companies and customers of green products to understand the importance of eco-awareness strategies, as they affect environmentally sustainable business relationships.

Unfortunately, there are several studies done in this area, it is not known to the researcher whether any study is done on eco-awareness and consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State. This study therefore aims at contributing to filling the gap in literature by investigating the effect of eco-awareness (such as environmental education, eco-labeling and attitude) on consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State.

Objectives of the Study

The main objective of this study was to determine the influence of eco-awareness on consumer buying behaviour of fast-moving consumer goods (FMCGs) in Akwa Ibom state. The specific objectives were:

i.   to ascertain the influence of environmental education on consumer buying behaviour of FMCGs in Akwa Ibom State.
ii.   determine the influence of eco-labeling on consumer buying behaviour of FMCGs in Akwa Ibom State.
iii.   investigate the influence of attitude on consumer behaviour of FMCGs in Akwa Ibom State.

Research Hypotheses

The following null hypotheses were formulated and tested in the study:

$H0_1$: Environmental education has no significant influence on consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State.

$H0_2$: Eco-labeling has no significant influence on consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State.

$H0_3$: Attitude has no significant influence on consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State.

LITERATURE REVIEW

Concept of Eco-awareness

Acee-Eke and Nwokah (2019) asserted that environmental impact assessment looks at how goods are made, how they are used, and how they are thrown away.

Sustainability marketing on the other hand, is an approach to marketing that considers the environmental and social impact of a company's products or services.

The importance of environmental responsiveness and sustainability in business has led to discussion among academics, industry, and governments worldwide. Businesses globally emphasize sustainable growth through suitable purchasing, product development, marketing, and corporate strategies. As a result, companies are rethinking their marketing strategies and promoting more sustainable business models. (Nwankwo & Kanyangale, 2022).

The concept of "ecological awareness" in a broad sense, is the emerging form of social awareness, manifested in the thinking and experiences of individuals, and their understanding of the e elements regarding their biosphere (Oluwasanmi et al., 2024). **Eco-awareness** refers to the level of knowledge and consciousness about environmental issues, such as climate change, pollution, resource depletion, and biodiversity loss. It encompasses the understanding of the impact that human activities have on the environment and the importance of adopting sustainable practices that reduce this impact (Nwankwo & Kanyangale, 2022).

Mythily and Sanjeevkumar (2024 observed that environmental awareness is made up of two parts: a cognitive part that is based on understanding and a sensory part that is based on perception. As a general term, "ecological awareness" refers to the growing level of social awareness that shows up in people's thoughts and experiences, as well as their ways of living, judging, and comprehending the biosphere (Khaleeli & Jawabri, 2020). This helps people learn more about environmental problems and gives them the tools they need to make smart, responsible choices.

Environmental Education

Environmental Education is a process of impacting awareness and adequate knowledge of the problems and functions of the environment; how to use it wisely and proffer solutions to the current environmental problems (Baruah & Das Mani, 2024). Mahmoud et al., 2022) argued that environmental education is an extension of the study of ecology, which is a branch of biology concerned with the interactions of living creatures with one another and with their environment.

Mubita, Milupi, Monde & Simoonya (2022), claim that the environment is in danger and must be saved, and the recommended answer is to educate people on how to rescue the environment. In this regard, Environmental Education's major purpose is to convey environmental knowledge in order to persuade customers to save the environment.

Eco-labeling

Labeling and certification play a crucial role in guiding consumer behaviour towards more sustainable and informed decision-making. Labelling or certification of eco-products tells customers about the green features of the product and encourages them to buy green goods (Braide et al., 2024).

Acee-Eke and Nwokah, (2019) say that eco-labeling and certifications are signs, symbols, or logos for environmental protection or eco-certifications that show a product or service meets certain standards for sustainability and the environment set by a separate group or authority. Thøgersen (2000) suggests that eco-labeling and certification can effectively persuade buyers to choose greener options and communicates to consumers that a product is ecologically friendly and adheres to sustainability principles.

Attitude

Consumer attitude can be defined as a person's positive or negative feelings about

an object (Baruah & Das Mani,2024). The author further says that, Belief is important for consumers because it can be positive or negative about an object. Human beliefs are inaccurate and can alter depending on the situation.

Ackaah et al. (2022) asserted that an attitude is a pre-determined preference to favour or dislike a person, circumstances, goods or services. Consumer attitudes are shaped by their judgment of specific characteristics, resulting in a favorable or negative image in their minds. The three primary components of consumer attitudes are as follows: (1) beliefs; (2) feelings; and (3) behavioral intention toward a product or service, which is situated within the framework of various acts such as a company-initiated marketing program that features a brand or retail store.

Attih et al. (2024) asserted that these three elements form the essential framework and are factors that influence how customers feel about a particular product. The intention to buy a product reflects the consumer's preference to make or not make a future purchase (Ackaah et al.,2022).

Consumer Buying Behaviour

Consumer buying behaviour is the study of how individuals or groups select, secure, utilize, and dispose of products, services, experiences, or ideas to meet their requirements. It also examines the impact these activities have on both the consumer and society (chinda & Umeh,2023).

Attih et al. (2024) described consumer buying behaviour as behaviour exhibited by consumer to search, buy, and use goods and service to satisfy his/her needs and wants.

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Eco-awareness refers to the level of knowledge and consciousness about environmental issues, such as climate change, pollution, resource depletion, and biodiversity loss. It encompasses the understanding of the impact that human activities have on the environment and the importance of adopting sustainable practices that reduce this impact (Oluwasanmi et al., 2024).

Customers now prefer items with eco-friendly packaging and sustainable production methods in the fast-moving consumer goods (FMCGs), which include everyday items such as beverages, toiletries and others due to increased knowledge of environmental (Chinda & Umeh, 2023). Similarly, Uford et al. (2022) further emphasized that consumer buying behaviour comprises all activities associated with the purchase, use, and disposal of products, including the consumer's emotional, mental, and behavioural responses associated with these activities.

Chinda and Umeh (2023) opined that "green consumers" are people who care about society and the earth and choose to buy things that are good for both. That's why people often call them "environmentally conscious shoppers." These customers care about the environment, and it shows in the things they buy and use. For example, they choose biodegradable or reusable items that won't pollute or hurt the environment, which protects the ecosystem for future generations.

Theoretical Framework

Value-Belief-Norm Theory (Stern, Dietz, Abel, Guagnano, & Kalof,1990)

This study was anchored on the theory of Value-Belief-Norm (VBN), VBN theory posits that individuals' environmental behaviors are influenced by their values, beliefs about environmental issues, and perceived moral obligations (norms) to act in environmentally friendly ways. In the context of FMCGs, consumers who hold strong concern for the environment and the wellbeing of others are more likely to be worried about environmental impacts, which translates into beliefs that their consumption patterns

can contribute or reduce environmental harm. These beliefs, in turn, foster a sense of moral responsibility to purchase eco-friendly products, even if they are more expensive or less convenient. Thus, eco-aware consumers are driven by a deep-rooted sense of duty to support sustainable practices, influencing their preference for FMCGs with green credentials, such as organic ingredients, recyclable packaging, and ethical production standards.

2.3 Empirical Framework

Several studies have been done on the effect of eco-awareness as it relates to consumer buying intentions. Some of the studies are shown below:

Acee – Eke and Nwokah (2019) conducted a study to examine the relationship between eco-based product strategies and marketing performance in Nigeria, focusing on quoted firms in the food and beverage industry using both primary and secondary data. The study considers the role of technology as a moderator between eco-based product strategies and marketing performance. Market share and profitability were used as proxies for marketing performance, while eco-product packaging and eco-product labeling both serve as the study independent variables. Data on both market share and profitability of 14 companies were sampled from a period of 2012 to 2016 and were obtained from the annual reports. The findings revealed that eco-product packaging and eco-product labeling both have a positive relationship with market share but have a negative relationship with profitability. They concluded that there is a trade-off between market share and profitability objectives anchored on eco-based product strategies.

Calitz, Cullen and Odendaal (2020) carried out a study on creating environmental awareness using an eco-feedback application at a higher education institution. The research objective of this exploratory study was to develop an eco-feedback application that could be used to create environmental awareness of electricity and water consumption levels in order to reduce its overall environmental impact amongst postgraduate students at the Nelson Mandela University, and the functionality of the eco-feedback application was evaluated. The literature synthesis approach was adopted for the study; students were provided with a pre- and post-test questionnaire using a 5-point Likert scale. The results indicated that participants became more aware of their environmental impact after being exposed to an eco-feedback application. They concluded that the functionality provided by the eco-feedback application, to assist in creating environmental awareness within an academic institution, proved to be useful.

Hyder and Amir (2023) studied the impact of green packaging on consumers' buying behaviour: the mediating role of attitude. The purpose of the research was to find out the impact of green packaged food products on consumer buying behavior and whether attitude mediates the relationship between eco labelling, willingness to pay and environmental concern with consumer buying behavior. The convenient sampling technique was adopted with sample size of 200 respondents. Hypotheses were tested using simple regression. Findings revealed that eco-labeling, attitude and willingness to pay and environmental concern all had a significant and positive relationship with consumer buying behaviour. The result further revealed that attitude mediates the relationship between eco labelling, willingness to pay, environmental concern and consumer buying behavior. It was concluded that knowledge of environmental concerns in individuals and people makes them act in ecological manner: thereby causing minimal damage to the environment.

RESEARCH METHODOLOGY

Research Design

The survey method was adopted as the research design for the study. The method employed online questionnaire (Google form) as instrument for data collection. This

method was chosen to help the researcher get information directly from the respondent.

The population of this study comprised all customers of fast-moving consumer goods (FMCGs) which include everyday items such as foods, pet- drinks and bottled water, beverages, cosmetics and so on, in Akwa Ibom State. The total number of FMCGs customers in Akwa Ibom State is unknown.

The sample size for this study was 384 respondents and was determined using the Walpole (1974) formula due to the unknown population size. Convenience sampling technique which is a non-probability sampling design was used to collect data from 384 respondents. This sampling procedure was adopted because it allows a researcher to reach out to accessible respondents.

The online questionnaire was used to collect data from respondents and divided into two parts A and B. Part A focused on respondents' demographics data. While part B focused on the independent and dependent variables of the study.

The research instrument was subjected to Cronbach Alpha reliability to test the level of reliability of the research instrument. The result was substantially high enough to justify the use of the research instrument as shown below.

Table: 1: Cronbach Alpha Pre-test Result

S/N	Variables	No of Items	Coefficient
1	Environmental education	3	0.855
2	Eco-labeling	3	0.700
3	Attitudes	3	0.804
4	Consumer buying behavior	3	0.777

Source: The Researcher's Computation (2025).

The results of Cronbach coefficients for each item were 0.7 above, showing the reliability, or internal consistency, of the tested items. The data were analyzed for frequency and percentile using the Statistical Package for Social Sciences (SPSS) version 25. All hypotheses were tested at 0.05 level of significance.

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This section presents the analysis of data collected from 384 respondents comprising all customers of fast-moving consumer goods in Akwa Ibom State. The aim was to evaluate the influence of eco-awareness on consumer buying behaviour of fast-moving consumer goods (FMCGs) in Akwa Ibom state. The analysis employed multiple linear regression.

Table 2: Summary of multiple regression analysis for the joined influence of engagement, quality content and brand reputation on customer's buying behaviour of electronic products   in Akwa Ibom State.

	B_1	SE	B_2	t-value	Significant (2 tailed)
Constant	0.779	0.211		2.949	0.002
Environmental education	0.690	0.073	0.785	19.338	0.000
Eco-labeling	0.710	0.022	0.062	1.768	0.003
Attitude	0.700	0.029	0.258	7.945	0.000
Dependent Variable: Buying behaviour					
R =	0.779				
R^2 =	0.899				
Adjusted R-Square =	0.898				
Std. Error of estimate =	0.99936				
F-statistics =	809.681				
Probability (Significant p-value) =	0.000[b]				

Significantly related at 5% (p<0.05). B_1= unstandardized beta, B_2=   standardized beta, SE= standard error.
Source: The Researcher's Compilation (2025).

The regression coefficient (R^2) =0.899 in table 2, indicates that environmental education, eco-labeling and attitude combined to explain 89.9% variation in consumer's buying behaviour of fast-moving consumer goods (FMCGs). This is to say that the independent variables (environmental education, eco-labeling and attitude) combined to account for 89.9% of the variation in consumer's buying behaviour of FMCGs, while the remaining 10.1% variation in consumer's buying behaviour could be as a result of factors that cannot be accounted for.

The combined influence of the independent variables in the model and the dependent variable was very strong at R= 0.779. The regression model of this study is said to have a very strong explanatory power of the dependent variable, since the coefficient of determination R^2= 0.899 and the adjusted coefficient of determination; adjusted R^2 = 0'899

In addition, the F-ratio = 809.611 and p-value < 0.000 on the ANOVA revealing that the results of the regression model could not have occurred by chance and that environmental education, eco-labeling and attitude significantly predicted the consumer's buying behaviour of FMCGs.

The regression results reveal that environmental education, eco-labeling and attitude all significantly affect customer's buying behaviour of FMCGs.

Discussion of Findings

The study showed a significant positive relationship between environmental awareness and consumer buying behaviour of fast-moving consumer goods (FMCGs) in Akwa Ibom State. The result of the first hypothesis tested shows that there is a significant positive influence of environmental education on consumer buying behaviour of fast-moving consumer goods.   This finding is in agreement with the work of Calitz, Cullen & Odendaal (2020) that environmental education significantly affects consumer buying behaviuor of fast-moving consumer goods.

The result of the second hypothesis also showed that eco-labelling has a significant positive influence on consumer buying behaviuor of FMCGs. This finding collaborates with the work of Acee – Eke & Nwokah (2019) which stated that eco-product packaging and eco-product labeling significantly affect consumer's purchase intention of fast-moving consumer goods.

The third hypothesis showed that attitude has a significant positive influence on consumer buying behaviour of FMCGs. This tallies with the position of Hyder & Amir (2023) that attitude mediates the relationship between eco labelling, willingness to pay, environmental concern and consumer buying behavior of fast-moving consumer goods.

CONCLUDING REMARKS
Conclusion
  The following conclusions were made based on the findings:
(1)   There is a significant relationship between environment education and consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State.
(2)   There is a significant relationship between eco-labelling and consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State
(3)   There is a significant relationship between attitude and consumer buying behaviour of fast-moving consumer goods in Akwa Ibom State

Recommendations

Based on the findings, the researchers made the following recommendations:

(1).   Manufacturers, Government Agencies, NGOs and other stakeholders involved in raising environmental consciousness should create awareness about the environmental impact of fast-moving consumer goods by teaching people about sustainable practices, waste reduction, and the benefits of choosing eco-friendly products.

(2).   Manufacturers should work with local environmental organizations to develop and promote eco-label that marches with the consumers by labeling products that meet eco-friendly standard of fast-moving consumer goods in Akwa Ibom State.

(3).   It is also recommended that stakeholders in environmental space should use targeted social media campaigns and local influencers to shape positive attitudes of people towards sustainability by emphasizing stories and testimonials from consumers who have embraced eco-friendly products in Akwa Ibom State.

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