



Sustainable production practices and brand loyalty: evidence from Cway bottled water in Osun state

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Abstract

The implementation of sustainable production practices has become one of the most salient determinants of consumer behaviour and brand loyalty. This research explores how sustainable practices which are eco-friendly packaging and waste management have influenced the brand loyalty of consumers of CWAY bottled water in Osun State, Nigeria. A cross-sectional design was used and questionnaires were administered to customers of CWAY bottled water in Osun State. 385 questionnaires were distributed out of which 378 valid responses were received. Descriptive statistics and multiple regression analysis were used to analyse the data. It was found that eco-friendly packaging ($\beta = 0.466$, $p < 0.001$) significantly impacts brand loyalty and waste-reduction practices ($\beta = 0.498$, $p < 0.001$). Among these factors, the greatest influence was on waste-reduction practices, indicating that consumers are increasingly willing to invest in companies that prioritise environmental responsibility in their manufacturing and distribution processes. The results align with prior empirical investigations that highlight the importance of sustainability practices in enhancing customer trust, satisfaction, and loyalty. The research concluded that CWAY and similar organisations should improve their consumer relations by incorporating sustainability into their production strategies. The practical implication is that bottled water companies should never stop innovating in environmentally friendly packaging and in minimising waste to remain unique in the market.

Keywords: Sustainable Production Practices, Waste Reduction, Eco-Friendly Packaging, Brand Loyalty

Introduction

The 21st century business strategy is now focusing on sustainability. The move towards

sustainable methods of production has ceased to be a luxury in the developed world, but a necessary step to achieve a competitive

advantage. European and North American companies have spent a lot of financial resources on eco-friendly packaging, waste disposal, renewable energy, and circular economy to minimise their effects on the environment (Ncube et al., 2023; Yang et al., 2023) or meet needs of health and safety among consumers. The demand of consumers on the eco-friendly products has led to development of innovative packaging materials which are eco-friendly such as biodegradable plastics, reusable containers, and recyclable materials. Similarly, there are waste disposal systems like recycling, lean production, and closed-loop production that have been designed to ensure that waste is minimised and that environment is not damaged. In developed markets, sustainable packaging innovation has a positive effect on consumer brand responsibility and authenticity. This lies in international companies such as Coca-Cola and Unilever which have earned consumer trust and loyalty due to positive changes in their packaging following the principles of the circular economy (Sarmah & Singh, 2024). It is becoming more of a case of brand loyalty in such markets basing on the ability of marketing such new sustainable initiatives in a transparent and innovative way.

Emerging economies such as Nigeria still have some progress to make in adopting sustainable production practices. The progress in adopting sustainability practices is often tempered by the absence of initiative, poorly developed infrastructure, the lack of a meaningful legal framework, and the costs associated with adoption (Nwankwo, 2022). However, some companies have started the more integrated approach as seen with sustainability in the Nigerian food and beverage market. Nestle Nigeria, CWAY, and Nigerian Breweries started with the implementation of eco-friendly waste reduction, recycling, and targeting, which is a

clear incentive to brand loyalty in the Nigerian market (Nwankwo & Kanyangale, 2023). In considering the brewing discourse surrounding the impact of sustainable production practices on CWAY's brand equity, the company is a prominent player in Nigeria's beverage sector. The rising health concerns, in conjunction with the growing bottled water consumption and the resulting lifestyle changes, in turn, bring about the seemingly contradictory concern of rising plastic waste and the subsequent degradation of the environment. This makes the urgent need for the development of eco-friendly alternatives to single-use plastic packaging all the more pertinent. This concern is further emphasised in the practices of the production and distribution supply chain of CWAY which help in the minimisation of waste and which seem to be positively appraised from the prism of corporate social responsibility. While the degree of competition in the market, alongside the level of differentiation of the products offered to consumers, is in fact quite stark, promoting social goals of the company articulated in the sustainable development goals fosters the emotional bond and the relationship, encouraging brand loyalty from the consumers.

Sustainable development goals have attained universal recognition as effective tools for promoting brand loyalty. However, the literature on how the use of eco-friendly packaging and waste reduction techniques in the bottled water industry affects consumer perception in Nigeria remains scant. This is all the more pertinent in the country considering the growing global phenomenon of "greenwashing." The problem is the determination of the actual social effect of sustainable brand loyalty advocacy; cynicism is apparently becoming diluted. Although the studies carried out in developed countries have continuously indicated that sustainability programmes create a sense of trust and brand

loyalty, there is little evidence in the Nigerian context where the environmental awareness is rising, yet the consumers have not yet shown any reaction. The study has relevance to the scholarly world and management practice by targeting CWAY Bottled Water in Osun State. On the academic front, it offers a knowledge gap on the association between sustainability and brand loyalty in the emerging market. In practical terms, the results will inform bottled-water firms in Nigeria in the way they should strategically work out and execute eco-friendly packaged and waste minimisation programmes that not only mitigate environmental effects but also enhance the level of customer loyalty, competitive advantage, and business sustainability over time. This study hence aims at analysing the effect of a green packaging and the impact of waste minimisation strategies on brand loyalty as it relates to the customers of CWAY Bottled Water in Osun State. Within the framework of contextualising the Nigerian experience as a part of the global discourse, this work helps to comprehend the role of sustainable production practices as the possible strategic means of increasing consumer confidence and building long-lasting loyalty to the beverage market.

The implementation of sustainable production practices has become one of the most salient determinants of consumer behaviour and brand loyalty. In the developed nations, eco-friendly packaging and reduction of waste have been embraced in corporations in order to improve their image and alleviate their effects on the environment, as well as building a strong relationship with their consumers. As an illustration, international beverage companies are redesigning their packaging to apply biodegradable, recyclable, and minimal waste adherent materials, and also apply waste-minimal lean manufacturing systems. Such

practises have been found to increase brand loyalty because of the awareness among the consumers of the necessity to support sustainable and responsible brands (Rastogi et al., 2024; Sarmah & Singh, 2024). The adoption of sustainable production methods, nevertheless, is not developed in Nigeria. Criticisms of bottled water producers' practices centre on the environmentally damaging single-use plastic water bottle (Ajala et al., 2020). Eco-friendly packaging could potentially provide a competitive advantage, particularly in relation to CWAY Bottled Water and the rest of the industry, which has been observed to be a low innovation and low variety, homogeneous competitive environment. However, the extent to which packaging influences brand loyalty compared to price and availability in the Nigerian context remains a matter of debate.

Despite industry efforts to promote recycling, optimised production, and waste control for reputational purposes, there is scant data on the Nigerian bottled water industry and its practices related to these actions, as well as their impact on consumer perceptions and loyalty. The failure to adopt effective waste minimisation strategies could harm the brand reputation more than the absence of sustainability strategies. These gaps raise an important, researchable, and unanswered question. While green, or eco-friendly, packaging and waste reduction have been empirically demonstrated to promote consumer loyalty, such research is sorely lacking in the context of Nigeria. More specifically, there is a gap in scholarship and understanding of whether the adoption of these practices by CWAY Bottled Water in Osun State is appreciated and reciprocated by brand loyalty. This study concentrates on the environmental dimension because the bottled water industry is highly packaging-intensive and environmentally sensitive. The importance of addressing this

problem lies in its contribution to the body of research and theory on consumer behaviour in emerging markets, as well as informing the strategic marketing and production practices of companies in the bottled water industry to enhance customer loyalty through deliberate sustainable practices. The main objective is to investigate sustainable production practices and brand Loyalty: Evidence from CWAY Bottled water in Osun State. The specific objectives are to;

- 1) examine the relationship between eco-friendly packaging and brand loyalty.
- 2) determine the effect of waste reduction practices on brand loyalty.

Literature Review

This section reviews relevant scholarly works on sustainable production practices and brand loyalty. The section explores eco-friendly packaging, waste reduction practices and brand loyalty. The review also integrates theoretical perspectives and prior empirical evidence to establish the study's conceptual foundation.

Sustainable Production Practices

The concept of sustainable production practices is very broad and covers numerous approaches that can be used to reduce negative environmental effects, enhance social fairness, and make it economically sustainable in the long term. These practices are crucial to solve the issues of environmental degradation, natural resources depletion, climate change and social inequities. Sustainability production as discussed by Lin et al. (2025) fosters the redesigning of goods and delivery of services to meet the environmental, social, and economic sustainability at all levels of production, distribution, consumption, and disposal. Sustainable production is an ideology that supports emission reduction, natural resource depletion, waste generation, and non-renewable sources of energy consumption (Titilayo et al.,

2025). This promise involves use of sustainable packaging, waste minimisation, recycling and other efforts. These measures are crucial because firms are under increased scrutiny under the gaze of the consumers, government, and advocacy organisations regarding the social responsibility of their environmental practises. When organisations use these practises, not only do they assert their environmental responsibility, they are also involved in the achievement of other universal agendas like the United Nations Sustainable Development Goals (SDGs).

Agu et al. (2024) observed that companies, which consider social sustainability as a part of the production strategy, build a stronger relationship with the stakeholders, their social right to act, and trust among the consumers who are more aware of the social problems. The other side of the coin is the economic sustainability which is oriented to the maximisation of the profits with the innovative exploitation of the sustainable and efficient resources and the rational fiscal control. The increase of profits can be achieved with the help of the implementation of cost-effective new technologies, optimization of resources, and the investment in the eco-friendly production. These will be businesses that will reduce the operational costs, and improve the operational competitiveness. The sustainability of production is also a way to attract environmentally and socially responsible clients and gain the market share (Nagiah & Mohd Suki, 2024). It has become a growing phenomenon whereby businesses, which adhere to the regulatory requirements, can now attract more customers, have brand loyalty and operational dominance in the ever-changing market as a result of the sustained diversification.

As the concerns about plastic pollutions issue, resource depletion and the necessity in the creation of eco-friendly products increase, the

sustainability of bottled water production becomes the crucial factor in the industry. Businesses such as CWAY are currently being defied on all front to move their systems to produce sustainably and thus incorporate low-impact waste management systems, green packaging and any other environmentally friendly programmes in their production systems. Bottled water companies will reduce their ecological footprint and improve resource management by using eco-friendly packaging, investing in bottle recovery programs, and recycling or resource optimisation in recovery systems. These programs not only help achieve sustainable goals but also appeal to customers who are shifting toward an eco-friendlier approach.

Dimension of Sustainable Production Practices

Eco-Friendly Packaging

Eco-friendly packaging indicates all forms of packaging that seek to reduce a negative environmental impact at every stage of their life cycle. It promotes positive environmental behaviour through the use of packaging materials that are consumable or renewably sourced, recyclable, biodegradable, and compostable and aims at mitigating the resource, carbon, and pollution-intensive expenditures associated with the production, use and post-use disposal of packaging (Prakash et al., 2023). Unlike the traditional model of packaging that employs single-use and non-renewable petroleum polymers and other plastic materials, eco-friendly packaging strikes a reasonable trade-off between the need to protect a product as well as the environmental concerns associated with the use of non-renewable resources and therefore, aims to foster sustainable forms of production (Hussain et al., 2024).

Eco-friendly packaging serves as a tangible promise of a company's environmental commitment (Khizerulla & Lavanya, 2024).

Consumers who believe a company's product packaging is sustainable tend to build trust and loyalty, feeling more positively about the brand and becoming repeat customers (Lin et al., 2025). On the other hand, the functionality of the packaging and whether the promises of sustainability are exaggerated play a role in the effectiveness of its eco-friendly claims. When the packaging of a specific product is poor or viewed as a greenwash, then customer scepticism will take the place of loyalty. (Kovac et al., 2025). The concept of environmentally friendly packaging in Nigeria and other third world nations is at a very primitive level of development. Nigeria has a higher probability of using eco-friendly packaging in the bottled water industry that focuses on satisfying the demand of the consumers and building a competitive advantage. It is for this reason that companies like CWAY invest in sustainable packaging as a value-added proposition to comply with their marketing strategy. This would build brand loyalty in anticipation for the cleaner regulatory environment.

Due to the rampant environmental issues such as the growing plastic waste problem, eco-friendly packaging in the bottled water industry in Nigeria is a strategic tool for developing trust and loyalty with customers. For CWAY Bottled Water, the ability to make a positive environmental impact through business in Osun State, while incorporating biodegradable, recyclable, and lightweight packaging materials, addresses both eco-friendly and visibility concerns. Due to the commoditised nature of products in the bottled water industry, this gives the brands a way to position themselves to the value of customers who are advocates for environmental sustainability. Based on this discussion, it is evident that eco-friendly packaging has a positive significant effect on brand loyalty of bottled water sector.

Waste Reduction Practices

Waste reduction practices refer to a set of deliberate organisational measures designed to minimise the generation and impact of waste throughout the product lifecycle. Waste reduction refers to a sustainability-oriented approach that emphasises preventing, reusing, recycling, and recovering materials rather than disposing of them (Uludag et al., 2024). The main point is to shape the production and consumption processes in a manner that will lead to maximum efficiency of resources at minimum detrimental environmental impact of waste. Therefore, the reduction of waste does not imply just control of the waste, but it is also a reconsideration of the method of production of the products, their packaging, consumption, and their final disposal, to achieve the long-term ecological equilibrium.

Waste reduction may be considered in two dimensions, namely preventive and corrective measures after consumer consumption (Zekeri et al., 2023). Prevention is done in the manufacturing process, where organisations ensure that material wastage is reduced, lean processes are applied and recyclable input used and remedies are done to address the wastes that consumers have already produced. It involves measures like bottle buyback programmes, recycling alliances, and educating consumers on how to dispose themselves properly. Such practises when combined into a whole system ensure that companies are holistically committed to sustainability that is not limited to production but rather to the entire cycle of consumption.

The practice of waste reduction in the bottled water industry is especially important due to the worldwide worry on plastic pollution. Unrecycled or incorrectly collected plastic bottles are likely to be environmental hazards in

landfills and water bodies. By involving in post consumption waste management, such as collaborating with recycling companies or establishing a collection location, companies can contribute to the minimisation of the environmental impact of their products. These activities not only enhance environmental performance, but also create an emotional impact on consumers, a signal of responsibility and environmental concern (Gunu & Ajayi, 2015). This means that the consumers will trust and stick with the brands that take visible action to solve the waste problem. The bottled water industry has one of the most urgent sustainability issues following the consumption of the products, as the discards of the plastic bottles are a major contributor to the pollution of the environment. The reduction of waste practices is not limited to the production line but also to other practises that deal with post-consumer waste like recycling, bottle buy back and collaboration with community waste collectors. In the case of CWAY Bottled Water in Osun State, the level of investment, in terms of such post-consumption waste management practises, is not only to minimise the number of environmental hazards but is also an indication of a firm dedication to corporate responsibility. By consumers observing a brand undertaking real efforts to control the waste produced by its products, trust can be boosted, positive brand associations can be evoked and finally brand loyalty can be achieved. But what about the situation when consumers feel that the companies do not care about the ecological impacts of their packaging post-usage. Then, it can undermine loyalty because the brand is growing under the increased responsibility of environmentally conscious consumers who demand that their products be subject to the entirety of the lifecycle. According to this discussion, it can be seen that waste reduction

practises are significantly related to brand loyalty of bottled water industry.

Brand Loyalty

The concept of brand loyalty is one of the most important marketing and consumer behaviour constructs, which defines the degree to which a customer prefers the usage of a certain brand rather than others, despite the availability of other choices. It involves behavioural and attitudinal aspects, in which repeat buying behaviour is accompanied by emotional attachment, trust and commitment towards a brand (Hussain et al., 2024). Agu et al. (2024) described loyalty as the readiness of buyers to repeatedly buy in a company since the perceived value of the products or services that the company provides is large compared to the competing brands. On the same note, Ilodigwe (2024) describes brand loyalty as not just the intention to make repeat purchases but as commitment to promote the brand by creating a positive word of mouth, hence influencing others. This shows that loyalty is a multidimensional concept that includes repeat patronage, not being influenced by competitors and emotional attachment to a brand (Sarmah & Singh, 2024).

Brand loyalty is important because of its long-term contribution to the success of businesses. Retained customers also lead to long-term cash flows, lower marketing expenses on new customer acquisition, and unpaid brand marketing through promotion by other customers (Rastogi et al., 2024; Nwankwo, 2022). According to Yue (2024), there are four important indices that can quantify loyalty, namely intention to repurchase, tolerance to price changes, willingness to recommend, and cross-buying behaviours. Even more recent metrics, including customer lifetime value (CLV) and staying a part of the loyalty programme, are also indicators of brand loyalty and provide the

companies with a strategic framework to understand how to identify and retain high-value customers (Oladipo et al., 2025).

The process of building up and enhancing brand loyalty is affected by a number of factors. These are the satisfaction of the customer, the value perceived, brand image, and trust. Loyalty becomes stronger when the consumers perceive a brand as trustworthy and corresponding with their own values (Oladipo et al., 2025; Yue, 2024). In addition to practical considerations, emotional, brand storytelling, personalised engagement and community are also issues that lead to strong and long-term consumer-brand relationships. Notably, in the modern business world, other sustainability-related activities like eco-friendly wrappings and minimisation of waste have also become other loyalty determinants. A growing number of environmentally conscious people are willing to positively embrace brands that have shown a sincere desire to lessen their negative environmental implications meaning that sustainable production has become a key feature in the creation of brand loyalty in markets like bottled water.

Underpinning Theory

This research adopted Resource-Based View (RBV) and Sustainability Theory which are both useful in providing a comprehensive framework of the relationship between sustainable production practises and brand loyalty in the bottled water industry. Resource-Based View (RBV) argues that companies can attain a competitive advantage when they have such resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). Eco-friendly packaging and waste minimisation strategies are strategic resources for CWAY Bottled Water, which will not only increase operational efficiency but also strengthen the brand's reputation among environmentally aware

consumers. CWAY will instil consumer confidence through the incorporation of innovations that help achieve sustainability like recyclable packaging and post-consumer waste recovery systems. Thus, RBV proves that sustainable production practices are internal capabilities creating differentiation and long-term values.

In addition to the resource-based view, sustainability theory offers a broader perspective by focusing on the balance among economic development, environmental quality, and social equity (WCED, 1987). The theory assumes that businesses have an obligation to adopt practices that ensure environmental stewardship, resource conservation, and intergenerational equity. In the bottled water industry, it is reducing plastic waste, promoting responsible drinking, and improving community welfare. Green packaging and waste minimisation activities are thus consistent with the philosophy of sustainability, as they reduce environmental degradation and meet the needs of consumers seeking products from socially responsible brands. The combination of the resource-based view and sustainability theory addresses both the strategic and ethical demands of sustainable production practices. Although the resource-based view focuses on the competitive edge that is related to sustainability-oriented resources, sustainability theory focuses on the bigger role of firms in approaching environmental and social issues in their operations. The two theories that are adopted enhance the arguments used in the study that eco-friendly packaging and waste reduction initiatives are not only strategic resources of CWAY but also critical avenues of building consumer confidence and brand loyalty within the bottled water sector in Nigeria.

Empirical review

Oladipo et al. (2025) explored the impact of green marketing on consumer purchase

decisions and brand loyalty of Nestlé Nigeria. Data were obtained from 900 consumers dispersed across Nigeria, covering six variables: awareness, trust, credibility, sustainable consumption, purchasing behaviour, and brand loyalty. Descriptive statistics and OLS regression yielded a significant intercept (2.71, $p < 0.001$). However, none of the variable's awareness (0.0107, $p = 0.755$), perceived effectiveness (0.0426, $p = 0.206$), credibility (-0.0355 $p = 0.294$), purchasing decision (0.0540, $p = 0.116$) had any significance on brand loyalty and consumer behaviour. The findings showed that other variables may be influencing the consumer's responses more significantly. This reinforces the position that responsive research on strategic adoption of green practices in packaging and waste disposal is more for firm eco-efficiency than for consumer loyalty, which amplifies the importance of this research shifting the focus to customer value in bottled water brand marketing.

Nwankwo (2022) evaluated the association between green business strategies and the performance of brewing industries in South-East Nigeria. The study was anchored to the theory of the natural resource-based view. The study adopted descriptive survey research design, and the data source was primary. The study population comprised 1,709 employees of seven brewing companies in South East Nigeria. Partem (1995) was used to determine the sample size of 384, and a proportional sampling technique was employed to distribute the sample size among the organisations. A structured questionnaire was used to generate data for the study. The respondents' questionnaires were analysed using frequency tables and percentages, while the hypotheses were tested using the regression technique at a 0.05 level of significance. The research findings showed that green production, green innovation, green

packaging, waste management and minimisation, and energy preservation and fuel substitution were each significantly related to performance. In contrast, green advertising had no significant relationship with performance in the brewing companies in the South-East region of Nigeria. It was established that these green business strategies are directly related to the performance of breweries in South-East Nigeria. This research demonstrates the importance of strategically managing waste that is not only eco-friendly and packaging but also focuses on performance from the business perspective rather than the consumer, reinforcing the importance of the current research in changing the narrative on bottled water brands.

Agu et al. (2024) focused on the specific relationship between sustainable business practices and brand loyalty alongside their practical significance to contemporary businesses. The review examined the literature on the impact of sustainability on customer retention, brand perception as well as the competitive edge in brand-emanating socially responsible businesses. Principal results highlight the need for greater consumer relationship management to drive brand advocacy and retention, which is associated with the sustainability of business practices. The practical business implications for brand advocacy and retention include the cross-vertical adoptions of business strategies aimed at consumer trust to competitive market positioning and sustainable profitability over time. With the changes in consumer perceptions and policy environment, increased innovative sustainability and sustainable social responsibility aligned with the global agenda business practices are encouraged. The investigation revealed a strong relationship between sustainability and customer trust, as well as retention, brand image, and longevity,

which surfaced a focus on brand advocacy and retention. Their research and conclusions integrate the idea of trust being built by sustainability, yet the academic knowledge is broad in nature and cross sector, while this research closes the gap on eco-friendly packaging and waste minimization in the bottled water industry.

Titilayo et al. (2023) assessed the impact of sustainable practices on customer satisfaction and retention in selected hotels across Lagos State, Nigeria. The focus of the study was determining customer perception on the sustainable practices, and the customer satisfaction and retention levels in selected hotels across Lagos State. The study was done on four categories of hotels (International, National, Urban and Suburban) based on the location in question from January 2021 to December 2021. For this specific study, a survey research design was used. Primary data includes closed-ended questionnaires, which were designed to gather primary data from the target respondents and a total of five hundred (500) questionnaires were purposively administered in all four categories of hotels in Lagos state. Secondary data includes the employment of related journal materials and periodicals. The information collected was analysed by means of frequency, percentage, mean and standard deviation while inferential statistical tools such as Pearson correlation and multiple linear Regression were employed to test the hypothesis. From the findings, the result shows the Pearson chi-square is 66.77 and the p-value is 0.00. The findings also found that there are important relationships between sustainable practices and customer related outcomes, which was determined through Pearson correlation and regression analysis. The analysis is important; however, the hospitality situation is rather different from the FMCG sectors like bottled water, where usage and the associated packaging

and disposal practices are more common and easily observed. Therefore, this study translates such findings to the bottled water industry where such sustainable practices are vital to enhancing customer loyalty.

Rastogi et al. (2024) analysed the effect of sustainable marketing on customer loyalty within the consumer electronics industry in India. A mixed approach, including descriptive and causal research designs, was adopted to gather data from 302 respondents in and around the capital city of Delhi, India. Structural Equation Modelling (SEM) was utilised to determine multivariate associations, and the data were analysed using SmartPLS 4. The research results showed that the use of sustainable marketing improves the brand image and brand loyalty of a firm. Moreover, brand image is a mediator between sustainable marketing and customer loyalty. This research confirms that, sustainability activities can indirectly improve the customer loyalty, especially in the consumer electronics industry. However, this has a loophole because the research lacks the bottled water industry in which sustainable packaging and waste minimisation will gain more exposure to the customers. This research will therefore attempt to fill this literature gap by putting them into practical application in the context of fast-moving consumer goods.

Sarmah and Singh (2024) assessed the impact of sustainable marketing practices on consumer behaviour. This research used a mixed-methods approach. This study employs both qualitative and quantitative methods to investigate the phenomenon under examination. Qualitative techniques were used for interviews and focus group discussions on consumers that span the different demographics to get a complete picture of their beliefs, feelings and behaviours concerning sustainable marketing practices.

After that, a quantitative approach was used to analyse surveys filled out by a large and diverse sample concerning consumer behaviour, making it possible to perform statistical analysis that included regression and other methods of analysis, such as structural modelling techniques. This enables the analysis of both the qualitative and quantitative aspects of consumer behaviour towards sustainable marketing practices. This study demonstrated that sustainable marketing practices have a positive impact on consumer behaviour and loyalty towards the brand. It was been found that customers show more interest and positive feelings towards businesses that use eco-friendly packaging and practice ethical sourcing. These practices influence the buyer's behaviour and develop trust, loyalty, and affiliation towards the brand that practices sustainability. In addition, the research outlines different demographic and psychographic characteristics that affect the relation of sustainable marketing practices and consumer behaviour, providing marketers with information for better strategy formulation. Much of this closely relates to the current study, but their work was cross-industry and international. Concentrating on bottled water in Nigeria, this study provides contextualised evidence on the influence of loyalty stemming from packaging and waste reduction, addressing a contextual and sectoral void.

Methodology

This study adopted a cross-sectional survey research design. The choice of this design was informed by its suitability for collecting standardised data from a relatively large sample within a short period and for statistically analysing relationships between variables. This study concentrates on the environmental dimension because the bottled water industry is highly packaging-intensive and environmentally sensitive. The target population of this study

comprises customers of CWAY bottled water across Osun State, Nigeria. These customers spanned diverse socioeconomic groups and were observed in public spaces such as restaurants, hotels, malls, and supermarkets. Since CWAY bottled water is widely consumed across the state and a comprehensive sampling frame of customers does not exist, the population is considered infinite, warranting the use of statistical techniques designed for large and unbounded populations. The sample was calculated based on Cochran formula of infinity and the sample used in the study is 385 respondents. This sample was deemed adequate to make credible and generalisable results and, at the same time, have sufficient representation of different CWAY customers in Osun State.

The study used two stage method of sampling to make sure that there was sufficient representation of CWAY bottled water consumers in the state of Osun. In the primary level, Osun State was divided into three senatorial districts which are: Osun Central, Osun East and Osun West. Two local government areas (LGAs), which are Osogbo, Olorunda, Ife East, Ilesha East, Ede North and Iwo local governments were purposely sampled based on their population density, commercial activity, and intensity of distribution of the bottled water, hence, providing geographical dispersion and sufficient coverage of consumer diversity. The second stage involved the selection of respondents based on the chosen consumption outlets such as restaurants, hotels, malls, supermarkets, and neighbourhood kiosks since these were the most common places of buying and consuming bottled water both in the urban and semi-urban areas. Simple random sampling was used to sample the participants within each outlet and respondents who were customers had equal opportunities of being sampled. This minimises bias and augments representativeness of the sample. Eligible

participants were aged 18 years and above, as they make their own purchasing decisions and can provide informed feedback on brand loyalty and perceptions of sustainable production processes. This dual-category sampling was used because it enabled the identification of distinct categories of CWAY customers in Osun State and enhanced the internal and external validity of the research.

The items in the questionnaire were based on the recent validated instruments, including Uludag et al. (2024), that measured the level of green consumer engagement and loyalty, Prakash et al. (2023), that measured the effect of sustainable packaging on FMCGs, Agu et al. (2024) that measured the waste reduction/recycling practises, and Ilodigwe (2024), which measured the level of consumer awareness about sustainable marketing in Nigeria. The questionnaire is organised into three parts, Section A will include the demographic data of people, Section B will include the perceptions of the European consumers on sustainable production practises (eco-friendly packaging and waste reduction practises), and Section C will include the dimensions of brand loyalty. The questions to be used in the questionnaire were designed according to validated scales used in earlier research modified to fit into the Nigerian market and the bottled water market. The responses were also evaluated on a five-point Likert scale. Analysis and coding of the obtained data were done using Statistical Package of Social Sciences (SPSS). Descriptive and inferential statistics were used. Descriptive statistics that encompass standard deviations, means, frequencies, and percentages were used to analyse the demographic data. Inferential statistics involves correlation and multiple linear regression tests to test the research hypotheses.

Result and Discussion

In this section, data analysis of information obtained during the survey and the discussion of the results based on the objectives of the study will be provided. Among the questionnaires which were distributed, 378 valid responses were retrieved and analysed which is sufficient response rate of the survey-based research. It is recommended that a response rate of 70 percent is usually said to be sufficient in organisational and consumer research, but a larger response rate makes the results more reliable and generalisable (Creswell, 2014). This valid sample size of 378 is thus adequate to give sufficient statistical power that would be representative of

the consumers of CWAY bottled water in Osun State.

Demographic Characteristics of the Respondents

The analysis of the respondents' demographic attributes was conducted to provide a background for interpreting the results. Table 4.1 shows the age, educational qualification and occupation distribution of respondents. This discussion assists in establishing whether the sample is adequate to capture the diversity of the CWAY bottled water customers in Osun State.

Table 4.1: Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	18–25	82	21.7
	26–35	134	35.4
	36–45	95	25.1
	46 and above	67	17.8
Educational Qualification	Secondary and below	76	20.1
	OND/NCE	112	29.6
	HND/Bachelor's Degree	138	36.5
	Postgraduate	52	13.8
Occupation	Student	89	23.5
	Civil Servant	96	25.4
	Business/Trader	118	31.2
	Others	75	19.8

Source: Author Conceptualisation (2025).

The age population revealed that the highest age group is in the age category of 26-35 years (35.4%), which represents the active consumer age group of bottled water in Nigeria. Education-wise HND/Bachelor/ NCE holders (36.5/29.6) are the largest, which means that the sample

population is relatively literate. As far as occupation is concerned, the most represented are the business owners and traders (31.2), the civil servants (25.4), which shows the importance of various income groups in consuming bottled water.

Descriptive Analysis

Table 2: Eco-friendly Packaging

Item	Mean	Std	Min	Max
Eco-friendly packaging enhances my trust in the CWAY brand	2.95	1.40	1	5
I prefer bottled water with recyclable packaging	3.06	1.47	1	5
Eco-friendly packaging influences my repeat purchase	2.97	1.43	1	5
CWAY's eco-friendly packaging improves its brand image	2.96	1.43	1	5

Source: SPSS Output (2025).

Table 4.2 results revealed that the perception of the respondents towards CWAY eco-friendly packaging practises was moderate. The sample mean is between 2.95 and 3.06 using a 5 point Likert scale, which implies that consumers are aware of environmentally friendly packaging, but they do not agree with it very much. To be more precise, the preference towards recyclable packaging has the highest mean value (3.06), which means that the customers are rather

considerate of the sustainability when making a decision to purchase the product. Likewise, the fact that the respondents identify a positive, but not a significant, impact of sustainable packaging practises on brand image (Mean = 2.96) and brand trust (Mean = 2.95) shows that the perception of eco-friendly packaging as an improvement of brand image and brand trust is positive, but not overwhelming.

Table 4.3: Waste Reduction Practices

Item	Mean	Std	Min	Max
I feel satisfied when my brand provides clear instructions for the proper disposal of bottles.	2.99	1.43	1	5
I support brands that encourage recycling after use.	3.11	1.42	1	5
I support CWAY because its waste reduction practices reduce environmental pollution.	3.02	1.41	1	5
CWAY's post-consumption waste practices improve my satisfaction.	3.02	1.43	1	5

Source: SPSS output (2025).

Table 4.3 indicates that the respondent agrees to the fact that the waste reduction programmes of CWAY have effect on their loyalty. The average score is between 2.99 to 3.11 with the highest score of the same being I support brands that promote recycling after use (Mean = 3.11). Here the customers emphasise the fact that they appreciate recycling efforts and identify them with responsible brand behaviour. The same results were obtained with regard to both Waste reduction initiatives affect my repurchase decision (Mean = 3.02) and CWAY post consumption waste practises enhances my

satisfaction (Mean = 3.02), where sustainability measures in waste management have a significant, but not very high impact concerning customer satisfaction and repurchase intention. The standard deviations (1.41-1.43) imply that the responses are highly varied and thus some consumers might highly believe in waste reduction practise whereas others are not as concerned or might not be aware of such practises. These results suggest that the waste reduction strategies are a new yet not significant issue in determining the customer loyalty to CWAY bottled water.

Table 4.4: Brand Loyalty

Item	Mean	Std	Min	Max
I intend to continue buying CWAY bottled water.	3.08	1.43	1	5
I would recommend CWAY bottled water to others.	2.98	1.43	1	5
I am willing to stay with CWAY even if the price increases.	2.89	1.43	1	5
I consider CWAY as my first choice among bottled water brands.	3.12	1.38	1	5

Source: SPSS output (2025).

Table 4.4 shows that the respondents would be moderate in terms of their loyalty towards CWAY bottled water. The mean scores fall

within the range of 2.89 to 3.12 with the highest of the scores being 3.12 on the item "I consider CWAY as my first choice among the bottled

water brands" (Mean = 3.12). This implies that CWAY is comparatively high in the mind of consumers as compared to the competitors. The least mean score (2.89) was registered on the statement of willingness to stay with CWAY even when prices rise, and it is clear that loyalty is still price-sensitive and is not yet established. The average of willingness to recommend CWAY to others (2.98) shows that the customers can be satisfied with this brand, but they cannot advocate it. The standard deviations (1.38-1.43) once again indicate a large distribution of the responses, which indicates that the level of loyalty is different among the

consumer groups. Such results suggest that CWAY has achieved an acceptable customer loyalty, especially in terms of brand preference and intentions to purchase again. Nevertheless, this loyalty is not so high that it can hold against the pressures of competition like price variations or substitutes in the market.

Test of Hypotheses

H01: Eco-friendly packaging has no significant relationship with brand loyalty.

H02: Waste reduction practices have no significant effect on brand loyalty.

Table 4.5: Correlations

		Brand Loyalty	Eco-friendly packaging	Waste reduction practices
Pearson Correlation	Brand Loyalty	1.000	.936	.938
	Eco-friendly packaging	.936	1.000	.917
	Waste reduction practices	.938	.917	1.000
Sig. (1-tailed)	Brand Loyalty	.	.000	.000
	Eco-friendly packaging	.000	.	.000
	Waste reduction practices	.000	.000	.
N	Brand Loyalty	378	378	378
	Eco-friendly packaging	378	378	378
	Waste reduction practices	378	378	378

Source: SPSS output (2025).

Table 4.5 shows the Pearson correlation findings of brand loyalty, environment-friendly packaging, and reduction of waste. The calculated results demonstrate that there are extremely positive correlations between the variables. Precisely, eco-friendly packaging ($r = .936$, $p < .001$) and waste reduction practises ($r = .938$, $p < .01$) are strongly correlated with brand loyalty. Likewise, eco-friendly packaging and waste minimization are also very correlated ($r = .917$, $p < .001$). The values of the significance ($p = .000$) show that all the correlations are

significant at the level of 1%. It indicates that the attitude of consumers towards eco-friendly packaging and wastage of water programmes is highly associated with their loyalty to CWAY bottled water. This implies that sustainable production practises are important in creating a brand loyalty in the bottled water industry, as indicated by the strong correlations. When customers realise that CWAY is dedicated to using eco-friendly packaging and waste disposal, they would be more willing to stick with the brand.

Table 4.6: Model Summary

Model	R	Change Statistics
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	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. Change	F
1	.957 ^a	.916	.453	.916	2050.889	2	375	.000	

a. Predictors: (Constant), Waste reduction practices, Eco-friendly packaging

Source: SPSS output (2025).

As observed in Table 4.6, the predictive relationship of eco-friendly packaging and waste reduction practises with brand loyalty is quite high (R =.957; R² =.916). This implies that the two predictors explain 91.6 percent of the differences in brand loyalty. The small standard

error (.453) and a very high F-value (F = 2050.889, p =. 000) are evidence that the model is statistically valid and gives a very good fit. It is found that sustainable production practices are one of the most significant influencers of brand loyalty.

Table 4.7: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	841.552	2	420.776	2050.889	.000 ^b
	Residual	76.938	375	.205		
	Total	918.489	377			

a. Dependent Variable: Brand Loyalty

b. Predictors: (Constant), Waste reduction practices, Eco-friendly packaging

Source: SPSS output (2025).

Table 4.7 gives the results of ANOVA of the regression model. In the analysis, the model is found to be statistically significant (F = 2050.889, p <.000) and thus, eco-friendly packaging and waste reduction measures individually have a high impact on brand loyalty. The regression sum of squares (841.552) is significantly higher than the residual sum of squares (76.938), which validates the fact that

the predictors account a significant part of the variation in brand loyalty. This finding justifies the overall fitness of the model and proves that sustainable production practises play a significant role in the brand loyalty. In the case of CWAY, it is the understanding that an eco-friendly packaging and waste minimisation programme is not only eco-friendly but more importantly.

Table 4.8: Coefficients^a

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	Correlations			
		B	Std. Error	Beta		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	.110	.062		1.778	.076	-.012	.232		
	Eco-friendly packaging	.466	.037	.473	12.645	.000	.393	.538	.936	.547
	Waste reduction practices	.498	.037	.505	13.501	.000	.426	.571	.938	.572
										.202

a. Dependent Variable: Brand Loyalty

Source: SPSS output (2025).

Table 4.8 presents the regression coefficients for eco-friendly packaging and waste reduction practices in predicting brand loyalty. Both predictors are statistically significant ($p < .001$). Eco-friendly packaging has a standardised coefficient ($\beta = 0.473$, $t = 12.645$), while waste reduction practices have a slightly stronger standardised effect ($\beta = 0.505$, $t = 13.501$). This means that despite the contribution of the two, waste minimisation practices have a slightly higher impact on brand loyalty. Therefore, the null hypotheses were rejected and the alternate hypotheses were accepted by the study as the eco-friendly and waste management practices make a significant and positive impact on brand loyalty. The results also indicate that although customers appreciate the use of environmentally friendly wrapping, they are even more sensitive to waste management post-consumption. In the case of CWAY, this would involve focusing on the visible waste management initiatives as well as packaging innovations to ensure the greatest level of loyalty is achieved. The findings support the idea that sustainability-inspired practises are not only environmental requirements, but also strategic instruments that allow the company to retain consumers over the long term.

Discussion of Findings

The research results revealed that eco-friendly packaging and waste management practices play a major role in brand loyalty among consumers of CWAY bottled water in Osun State. Regression outcome revealed that the two predictors combined explained 91.6% of the variance in brand loyalty with the waste reduction practises having a stronger impact. This highlights the significance of visible sustainability programmes, both on the pre-consumption level (packaging) and the post-consumption level (waste reduction) in

influencing customer perceptions and creating a desire to repurchase.

The results are in line with Agu et al. (2024) who highlighted that sustainable practices contribute to improving customer trust, brand image, and long-term loyalty because they lead to transparency and ethical interaction. In the same way, Rastogi, et al. (2024) discovered a positive impact of sustainable marketing on brand loyalty. The current research is consistent with their conclusion, as it demonstrates that the sustainability efforts of CWAY not only lead to environmental objectives but also to the formation of customer preference and competitive advantage. Moreover, the results are in line with Nwankwo (2022), who developed strong correlations between green packaging, waste management, and performance of firms in the brewing sector.

Theoretically, the findings can be viewed in terms of the Resource-Based View (RBV), which is based on the assumption that distinctive and non-replicated practises namely eco-friendly packaging and good waste management give firms sustainable competitive advantage (Barney, 1991). These practises are incorporated to bring uniqueness to the operation of CWAY, which other competitors might struggle to imitate. The results are also in line with the sustainability theory which asserts that the companies embracing an eco-friendly approach are well placed to maintain survival in the long run by ensuring that the ecological responsibility of the company is countered with the consumer expectations (Gladwin et al., 1995). CWAY in this case is eco-friendly in terms of packaging and waste minimization, which will appeal to environmentally aware customers and boost loyalty, providing the company with long term market presence. This study indicated the existence of eco-friendly packaging and waste management practices impacts on loyalty with

practical and consumer-facing sustainability measures unlike other previous studies that focused on awareness and communication.

Conclusion and Recommendations

This research examined the impact of sustainable production practices, particularly eco-friendly packaging and waste minimisation, on brand loyalty to CWAY bottled water in Osun State. Using 378 valid responses as the sample, the results showed that eco-friendly packaging and waste-reduction practices have a significant positive influence on brand loyalty, which jointly accounts for 91.6% of the variance in brand loyalty. The stronger predictor was waste-reduction practices, although both variables had a significant impact on customer retention.

The findings affirm that customers are increasingly demanding of environmentally responsible companies through observable and practical measures. The paper therefore supports the thesis of the Resource-Based View (RBV) that distinctive sustainability practices generate a sustained competitive advantage, and Sustainability Theory, which emphasises the trade-off between environmental stewardship and business growth. Altogether, the research concludes that eco-friendly packaging and waste minimisation are not merely key to environmental sustainability but also to stimulating customer loyalty in Nigeria's bottled water market. The recommendations made was based on the findings as follows:

- 1) The bottled water companies including CWAY should consider using biodegradable, recyclable or even reusable packaging containers. Eco-friendly packaging which is visible is a powerful environmental message, an element that communicates to customers a positive image of the company and in turn raises customer loyalty.
- 2) Companies should implement take-back programmes, recycling programmes and consumer education programmes on how to properly dispose of garbage. This kind of work fosters customer commitment and loyalty.

Limitations and Suggestions to Future Research

- 1) The research was limited to consumers of CWAY bottled water in the Osun State. This could reduce the applicability of the general results in other states or regions in Nigeria where consumer behaviour and environmental awareness could be dissimilar. To be more comprehensive, the study needs to be broadened to other brands of bottled water in various states of Nigeria in the future to offer more comparative information.
- 2) The analysis was based on survey data, which is cross-sectional as it is a survey data that reflects the consumer perceptions at one point in time. This design fails to consider the changes in consumer attitudes and loyalty which may change. Longitudinal research is needed to evaluate the effects of eco-friendly packaging and the implications of waste reduction for brand loyalty over time, including the potential mediating roles of customer satisfaction and brand image

References

- 1) Agu, E. E., Iyelolu, T. V., Idemudia, C., & Ijomah, T. I. (2024). Exploring the relationship between sustainable business practices and increased brand loyalty. *International Journal of Management & Entrepreneurship Research*, 6(8), 2463–2475.
<https://doi.org/10.51594/ijmer.v6i8.1365>

- 2) Ajala, O. J., Ighalo, J. O., Adeniyi, A. G., Ogunniyi, S., & Adeyanju, C. A. (2020). Contamination issues in sachet and bottled water in Nigeria: A mini-review. *Sustainable Water Resources Management*, 6(6), 112. <https://doi.org/10.1007/s40899-020-00478-5>
- 3) Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- 4) Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Sage. <http://eduq.info/xmlui/handle/11515/19498>
- 5) Gunu, U., & Ajayi, O. (2015). Knowledge sharing and firm innovativeness in food industry in South-Western Nigeria. *Global Management Review*, 9(4), 1–10.
- 6) Holtom, B., Baruch, Y., Aguinis, H., & Ballinger, G. (2022). Survey response rates: Trends and a validity assessment framework. *Human Relations*, 75(8), 1560–1584. <https://doi.org/10.1177/0018726721107076>
- 7) Hussain, S., Akhter, R., & Maktedar, S. S. (2024). Advancements in sustainable food packaging: From eco-friendly materials to innovative technologies. *Sustainable Food Technology*, 2(5), 1297–1364. <https://doi.org/10.1039/D4FB00084F>
- 8) Ilodigwe, O. P. (2024). Assessing consumer awareness and engagement in sustainable marketing campaigns in Nigeria (Lagos State). *Sri Lanka Journal of Marketing*, 10(1), 45–61. DOI: [10.4038/sljmuok.v9i3.128](https://doi.org/10.4038/sljmuok.v9i3.128)
- 9) Khizerulla, M., & Lavanya, G. (2024). Unpacking sustainability: Exploring consumer attitudes towards recycled packaging and the impact of branding, marketing strategies, and visual design on eco-friendly perceptions. In *National Conference on "Challenges and Opportunities of Digital India," Bangalore*. www.ijrar.org (E-ISSN 2348-1269, P-ISSN 2349-5138)
- 10) Kovač, I., Dunković, D., & Kovač, B. (2025). Greenwashing and consumer skepticism toward eco-labels in Croatia: Challenges and policy directions. *British Food Journal*. <https://doi.org/10.1108/BFJ-02-2025-0122>
- 11) Lin, C. C., Nugraha, K. S., & Hsu, Y. J. (2025). The effect of sustainable development goals on customer satisfaction, customer loyalty, and the role of brand image in green hotels. *Advances in Management and Applied Economics*, 15(1), 131-160. <https://doi.org/10.47260/amae/1517>
- 12) Nagiah, G. R., & Mohd Suki, N. (2024). Linking environmental sustainability, social sustainability, corporate reputation and the business performance of energy companies: Insights from an emerging market. *International Journal of Energy Sector Management*, 18(6), 1905-1922. <https://doi.org/10.1108/IJESM-06-2023-0003>
- 13) Ncube, A., Mtetwa, S., Bukhari, M., Fiorentino, G., & Passaro, R. (2023). Circular economy and green chemistry: The need for radical innovative approaches in the design for new products. *Energies*, 16(4), 1752. <https://doi.org/10.3390/en16041752>
- 14) Nwankwo, A. A. (2022). Green business strategies and performance of breweries in South-East Nigeria. *International*

- Journal of Innovative Social Sciences & Humanities Research*, 10(1), 127–138.
- 15) Nwankwo, C. A., & Kanyangale, M. I. (2023). Effect of ecological marketing on survival of small and medium enterprises in Anambra State, Nigeria. *Journal of Economic and Social Development*, 10(2), 20–29.
 - 16) Oladipo, J., Amos, I., Oyeleye, J., & Sangodoyin, O. (2025). Impact of green marketing on consumer decisions and brand loyalty: Perceptions of authenticity and credibility in Nestlé Nigeria. *Abuja Journal of Business and Management*, 3(3), 366–377. <https://doi.org/10.7118/fj39sd09>
 - 17) Prakash, S., Sharma, V. P., Singh, R., Vijayvargy, L., & Nilaish. (2023). Adopting green and sustainable practices in the hotel industry operations- an analysis of critical performance indicators for improved environmental quality. *Management of Environmental Quality: An International Journal*, 34(4), 1057-1076. <https://doi.org/10.1108/MEQ-03-2022-0090>
 - 18) Rastogi, T., Agarwal, B., & Gopal, G. (2024). Exploring the nexus between sustainable marketing and customer loyalty with the mediating role of brand image. *Journal of Cleaner Production*, 440, 140808. <https://doi.org/10.1016/j.jclepro.2024.140808>
 - 19) Sarmah, P., & Singh, A. P. (2024). The effectiveness of sustainable marketing practices in influencing consumer behaviour and brand loyalty. *International Journal for Multidisciplinary Research*, 6(2), 1–11. www.ijfmr.com
 - 20) Titilayo, D. P., Arowosafe, F. C., Oladipo, O. S., & Ajayi, S. R. (2023). Assessment of sustainable practices on customers' satisfaction and retention in selected hotels in Lagos State, Nigeria. *Merit Research Journal of Arts, Social Science and Humanities*, 9(1), 1–6. <https://doi.org/10.5281/zenodo.7986538>
 - 21) Uludag, O., Andrić, B., & Omoruyi, D. (2024). The role of green consumer brand engagement in shaping brand loyalty through digital marketing in the hotel industry. *Sustainability*, 16(23), 1-18. <https://doi.org/10.3390/su162310410>
 - 22) World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.
 - 23) Yang, M., Chen, L., Wang, J., Msigwa, G., Osman, A. I., Fawzy, S., ... & Yap, P. S. (2023). Circular economy strategies for combating climate change and other environmental issues. *Environmental Chemistry Letters*, 21(1), 55–80. <https://doi.org/10.1007/s10311-022-01499-6>
 - 24) Yue, N. (2024). Identify potential loyalists in shopping festival: Repeat buyer prediction for e-commerce based on feature engineering and ensemble learning (Doctoral dissertation, MS thesis, Erasmus School of Economics, Erasmus Univ. Rotterdam, Rotterdam, Netherlands).
 - 25) Zekeri, A., Rahman, M., & Abubakar, U. (2023). Assessment of top management's commitment on the performance of selected restaurants in Ilorin Metropolis, Nigeria. *African Journal of Management and Business Research*, 11(1), 229–243. Retrieved from <https://publications.afropolitanjournals.com/index.php/ajmbr/article/view/547>