

Promoting Environmental Sustainability through Green Marketing among Plastic Beverage Companies in Lusaka

Natasha Rita Musonda and Bupe Getrude Mutono-Mwanza

Marketing (Graduate School of Business), University of Zambia

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ABSTRACT

The escalating urgency of environmental challenges has led many organizations to adopt Green Marketing practices as a strategic framework to promote environmental sustainability. This study aimed to assess the use and effectiveness of green marketing practices among companies that use plastic material to package their beverages in Lusaka, Zambia, within the context of existing environmental policies and regulations. The research employed a positivist approach, utilizing a descriptive research design and quantitative methodology. The sampling frame consisted of selected major players in the beverage industry who use plastic material for packaging and stratified random sampling was used to select participants. Data was collected through structured 196 questionnaires administered to marketers and employees of companies in Lusaka that package their beverages in plastics. Primary data was analyzed using Statistical Package for Social Sciences (SPSS). The findings reveal a significant lack of robust green marketing practices, with a heavy reliance on corporate social responsibility initiatives rather than operational-level eco-friendly practices. Factors such as corporate social responsibility commitments and competitive pressures were identified as key drivers, while regulatory influences and consumer awareness appeared to have limited impact. The inferential statistics indicate that all predictors significantly contribute to environmental sustainability. To enhance the effectiveness of green marketing in the plastic beverage sector, the study recommends that companies develop formal green marketing strategies, improve communication of their sustainability efforts, invest in employee training and stakeholder collaboration, and advocate for stronger regulatory support. Increased consumer education and investment in sustainable technologies were also identified as crucial measures. The research provides valuable insights for plastic beverage companies, policymakers, and industry stakeholders to promote environmental sustainability through effective green marketing practices.

Key Terms: Green marketing, environmental sustainability, consumer awareness, plastic waste, plastic beverage companies.

INTRODUCTION

The escalating urgency of environmental challenges has led many organizations to adopt Green Marketing practices as a strategic framework to promote sustainability and mitigate the adverse effects of climate change. In the context of the plastic beverage industry, green marketing is increasingly recognized as an essential approach that integrates environmental considerations into marketing strategies and operations. The proliferation of single-use plastics has raised significant concerns regarding waste management and environmental degradation, necessitating a reassessment of operational models within the beverage sector. Research indicates that effective green marketing not only addresses these pressing environmental issues but also enhances brand reputation and consumer loyalty, positioning sustainability as a key element in contemporary business strategy.

In Lusaka, Zambia, the plastic beverage sector faces numerous challenges in implementing green marketing practices despite their recognized benefits. Factors such as limited consumer awareness, inadequate financial resources, and resistance to change within organizational cultures hinder the adoption of sustainable marketing initiatives. This study aims to assess the effectiveness of green marketing practices among plastic beverage companies in Lusaka, focusing on how these strategies can promote environmental sustainability and align with global sustainability standards. By exploring the current landscape of green marketing in this sector, the research

seeks to provide actionable insights that can assist companies in enhancing their sustainability efforts, ultimately contributing to a greener economy in Zambia. The following sections will outline the background of the study, problem statement, aim, research objectives, research questions, significance of the study, and scope of the research.

Background to the Study

Plastic bottle packaging of beverages has become a cornerstone of modern consumer lifestyles, offering convenience, affordability, and portability that drive global consumption (Oduro, et al., 2021). However, this convenience is accompanied by significant environmental costs, as the rapid proliferation of single-use plastics contributes to escalating waste generation and pollution. Globally, approximately 300 million tons of plastic waste are produced annually, with a substantial portion arising from disposable beverage containers (Global Plastic Action Partnership, 2023). In Lusaka, Zambia's capital, the accumulation of plastic beverage waste poses an urgent concern. Streets, drainage systems, and landfills are increasingly littered with discarded bottles, resulting in environmental degradation, blocked drainage systems, and health risks for local communities.

To address these challenges, many companies that use plastic bottles to package their beverages, including notable local manufacturers such as Zambia Breweries and Coca-Cola Beverages Zambia, have started to adopt green marketing practices. These practices are designed to promote environmentally responsible products and operations (Judijanto, et al., 2024). Green marketing strategies in the plastic beverage sector often encompass: Take-back programs that encourage consumers to return used bottles for recycling or reuse. Eco-friendly product designs, such as the use of biodegradable or recyclable materials. Environmental awareness campaigns aimed at educating consumers on responsible consumption and disposal.

In Lusaka, several companies that use plastic material for packaging have begun integrating these practices into their marketing and branding strategies. For instance, Zambia Breweries has introduced recyclable Polyethylene Terephthalate (PET) bottles and partnered with waste management initiatives to promote responsible disposal (Mwansa, et al., 2023). Similarly, Coca-Cola Beverages Zambia and Varun Beverages Zambia have launched community clean-up campaigns to foster environmentally conscious brand images. These initiatives align with the global shift towards sustainability driven by Corporate Social Responsibility (CSR).

However, the implementation of green marketing initiatives in Zambia operates within a complex regulatory and policy framework governing environmental protection and waste management. The regulatory framework governing the plastic beverage industry in Zambia is primarily shaped by several key legislative instruments aimed at promoting environmental sustainability and responsible waste management. Central to this framework is the Environmental Management Act No. 12 of 2011, which establishes guidelines for environmental protection, pollution control, and sustainable resource management (ZEMA, 2018). This Act empowers the Zambia Environmental Management Agency (ZEMA) to enforce regulations related to waste management, including the handling and disposal of plastic waste generated from beverage packaging. Additionally, the Extended Producer Responsibility (EPR) Regulations of 2021 mandate that producers and importers of plastic products, including beverage companies, take responsibility for the entire lifecycle of their products (Zambia Bureau of Standards, 2023). This includes implementing systems for the collection, recycling, and recovery of plastic waste, thereby encouraging companies to adopt more sustainable practices and reduce their environmental footprint (Global Plastic Action Partnership, 2023).

Furthermore, the National Solid Waste Management Strategy (2018-2030) complements these regulations by outlining a comprehensive approach to waste management across the country (National Solid Waste Management Strategy, 2018).

This study aims to assess the use and effectiveness of green marketing practices among plastic beverage companies in Lusaka, including both beverage manufacturers and food product manufacturers, within the context of existing environmental policies and regulations. By doing so, it seeks to provide insights into how these marketing approaches can support sustainable waste management and contribute to Zambia's broader environmental goals. The objectives of the study are:

- To analyze the green marketing practices employed by plastic beverage companies.
- To examine the factors that influence the utilization of green marketing practices among these companies.
- To identify measures that can enhance the effectiveness of green marketing in promoting environmental sustainability in the plastic beverage sector.

Significance of the Study

This study may contribute to the theoretical understanding of green marketing by providing empirical evidence on its application within Zambia's plastic beverage industry. It will enhance academic discourse on the relationship between marketing strategies and sustainability outcomes, particularly in developing economies like Zambia. This contribution will be valuable for scholars and researchers interested in exploring the dynamics of green marketing and its impact on consumer behavior and environmental practices.

For the plastic beverage industry in Lusaka, this study will offer critical insights into the current state of green marketing practices and their effectiveness. The research will highlight best practices and identify areas for improvement, enabling companies to enhance their brand credibility and environmental performance. Ultimately, this study aims to promote a more sustainable approach within the industry, fostering a competitive advantage for those who effectively implement green marketing strategies.

The findings of this study will also have significant implications for policymakers and regulators in Zambia. By providing evidence-based recommendations, the research will help strengthen the implementation of environmental policies and close existing enforcement gaps. This study aims to inform policy development that encourages genuine environmental practices among businesses, ultimately contributing to Zambia's broader sustainability goals and aligning marketing practices with national environmental policies. The scope of this study encompasses several key aspects related to green marketing practices among plastic beverage companies in Lusaka, with a specific focus on environmental sustainability and consumer perceptions.

Theoretical Framework

This study is guided by two closely related behavioral theories: the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA). While these theories are often used to explain consumer behavior, in this research they are adapted to understand how marketers and employees within plastic beverage companies in Lusaka design, interpret, and implement green marketing practices that contribute to environmental sustainability. (TRA).

The Theory of Planned Behavior (TPB)

The TPB, developed by Icek Ajzen in 1991, explains how individual attitudes, subjective norms, and perceived behavioral control influence behavioral intentions and actions. It posits that a person's intention to engage in a behavior, such as purchasing eco-friendly products, is shaped by their attitudes towards the behavior, the social pressures they perceive, and their perceived control over the behavior. This framework has been extensively applied in environmental behavior research, particularly in studies related to sustainable consumption and consumer responses to green marketing (Hidayat & Sananta, 2024).

In the context of plastic beverage companies, the theory helps explain how employees' and marketers' decisions to adopt environmentally responsible strategies are shaped by three key elements: attitudes, subjective norms, and perceived behavioral control.

- Attitudes in this case refer to how marketers and employees evaluate green marketing practices such as eco-friendly packaging, recycling initiatives, and environmental campaigns. For example, if employees believe that sustainable packaging enhances brand image or long-term profitability, they are more likely to support its adoption.

- Subjective norms relate to the perceived expectations from stakeholders such as government regulators, customers, industry competitors, and management. In Lusaka, increasing environmental awareness and regulatory pressure may influence companies to align their marketing practices with sustainability expectations.
- Perceived behavioral control reflects the extent to which employees feel capable of implementing green marketing strategies. This includes factors such as availability of resources, organizational support, financial constraints, and access to sustainable materials.

The TPB is reflected in the study through questions directed at employees and marketers, such as: Their level of agreement with statements on the importance and benefits of green marketing practices. Perceptions of pressure from regulators, customers, or management to adopt sustainable practices. Challenges faced in implementing eco-friendly initiatives (e.g., cost, supply limitations, infrastructure)

Through this, TPB helps to explain whether companies are practically able to implement green marketing strategies and the factors influencing those decisions.

Theory of Reasoned Action (TRA)

Supporting the TPB, the TRA, also developed by Ajzen and Fishbein in the 1970s, emphasizes the role of individual beliefs in forming intentions and behaviors. Numerous studies have applied the TRA to understand consumer responses to marketing messages, particularly in the context of sustainability (Paul, et al., 2016). Both theories underscore the importance of cognitive and social factors in influencing environmental actions, making them particularly relevant for this study.

The Theory of Reasoned Action is applied to examine how beliefs within organizations shape the development of green marketing strategies and communication. Unlike TPB, TRA does not consider external constraints but focuses on how decisions are driven by internal reasoning and shared organizational understanding.

In this study, TRA is particularly useful in analyzing: How marketers and employees interpret environmental sustainability within their organizations. How beliefs about green marketing effectiveness influence campaign design and messaging. How companies position their brands as environmentally responsible through advertising and communication.

For example, if marketers believe that customers value environmentally friendly products, they are more likely to design campaigns that highlight eco-friendly packaging or recycling efforts.

TRA is captured through questions that explore: Employees' and marketers' beliefs about the role of green marketing in promoting sustainability. Perceptions of how effective environmental campaigns are in influencing customer behavior. The extent to which companies prioritize sustainability in their branding and communication strategies.

Through this approach, TRA helps to explain how green marketing ideas are formed and communicated within organizations.

The use of both TPB and TRA in this study allows for a more complete understanding of green marketing practices within plastic beverage companies in Lusaka. The TRA explains the formation of beliefs and marketing intentions, particularly how companies decide to position themselves as environmentally responsible. The TPB builds on this by examining the practical realities of implementation, including organizational limitations and external pressures. By combining both theories, the study is able to capture both the strategic thinking behind green marketing and the practical challenges of putting it into action.

CONCEPTUAL FRAMEWORK

Independent Variables

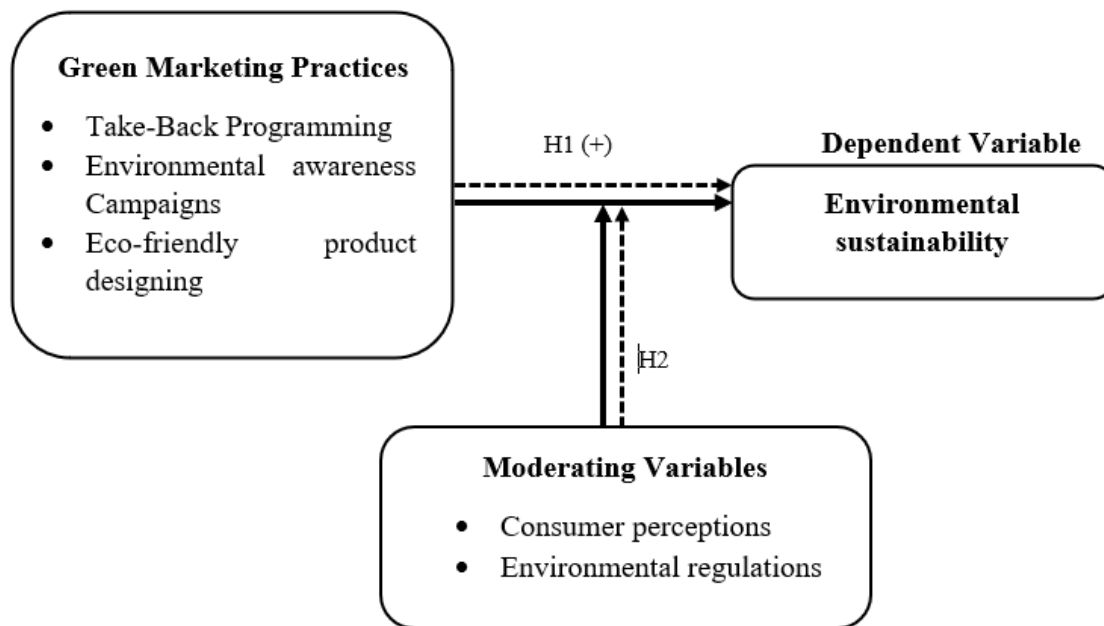


Figure 1 Conceptual Framework, Source: Author (2025)

The framework illustrates the relationship between green marketing practices and environmental sustainability, highlighting how various factors influence this dynamic. Green marketing practices, such as take-back programs, environmental awareness campaigns, and eco-friendly product designing, directly contribute to promoting environmental sustainability by encouraging responsible consumption, reducing waste, and fostering environmentally conscious behaviors among consumers and companies. However, the effectiveness of these practices is moderated by two key variables: consumer perceptions and environmental regulations.

LITERATURE REVIEW

Green Marketing

Green marketing has emerged as a pivotal strategy for companies aiming to align their products with the growing consumer demand for sustainability. This approach encompasses not only the promotion of eco-friendly products but also the incorporation of sustainable practices throughout the product lifecycle. The effectiveness of green marketing strategies is often influenced by consumer perceptions and behaviors.

A study done by (Kim & Lee, 2020) in Asia indicates that consumers' attitudes towards green marketing significantly affect their purchasing decisions. The Theory of Planned Behavior, as proposed by (Ajzen, 1991), suggests that behavioral intentions are shaped by attitudes, subjective norms, and perceived behavioral control. This theoretical framework can be applied to understand how green marketing initiatives can influence consumer behavior, particularly in the beverage sector. Effective communication of environmental benefits can lead to increased consumer engagement and higher sales of sustainable products. Furthermore, businesses that invest in consumer education about the environmental impacts of their products can enhance positive perceptions, leading to a greater likelihood of purchase.

A study done by (Kamanzi & Ngetha, 2023) discussed how environmental regulations can incentivize companies to adopt greener marketing strategies. Regulations often require companies to disclose their environmental impact, which can motivate them to improve their sustainability practices. For instance, firms that proactively comply with environmental regulations can position themselves as leaders in sustainability, attracting

environmentally conscious consumers. Additionally, collaboration with governmental and non-governmental organizations can provide companies with resources and knowledge to enhance their green marketing efforts.

A research done by (Oduro, et al., 2021) in Sub-Saharan Africa define environmental sustainability as the responsible management of resources to prevent depletion and degradation of the environment. This perspective is increasingly relevant in light of global challenges such as climate change, biodiversity loss, and resource scarcity. Organizations are now recognizing that sustainable practices are not just ethical imperatives but also essential for long-term business viability.

Take-back programs are strategic initiatives where companies actively encourage consumers to return used products, such as plastic bottles or packaging, for recycling or repurposing. These programs serve multiple environmental and economic purposes. Environmentally, they help to reduce waste and prevent plastic from ending up in landfills or natural ecosystems, thereby mitigating pollution and conserving resources (Mishra, et al., 2021).

Environmental awareness campaigns are fundamental tools for educating consumers about critical sustainability issues and inspiring eco-friendly behaviors. These campaigns can take many forms, including social media campaigns, community outreach events, informational brochures, and educational workshops. The primary aim is to raise awareness regarding the environmental impact of plastic waste, highlighting its consequences for ecosystems, wildlife, and human health as stated in a study done by (Kamanzi & Ngetha, 2023).

Eco-friendly product design involves the development of products that have minimal adverse effects on the environment throughout their entire lifecycle, from raw material extraction to disposal. This approach emphasizes the use of sustainable materials that are renewable, biodegradable, or recyclable, ensuring that products do not persist in the environment or deplete finite resources (Bocken, et al., 2016).

Regulatory frameworks play a pivotal role in shaping the green marketing practices of companies. Laws and regulations, such as the Environmental Management Act and Extended Producer Responsibility (EPR) regulations, create a structured environment that compels businesses to adopt sustainable practices (Kamanzi & Ngetha, 2023). The enforcement of these regulations ensures that companies are accountable for their environmental impact, which can directly influence their marketing strategies.

Consumer behavior is another critical factor influencing the utilization of green marketing practices. The growing awareness of environmental issues and the demand for sustainable products have led consumers to prioritize eco-friendly options in their purchasing decisions (Ajzen, 1991). Research by (Michelsen & de Boer, 2020) shows that consumers are more likely to support brands that actively promote their sustainability efforts, resulting in increased sales and brand loyalty. Furthermore, the Theory of Planned Behavior suggests that attitudes, subjective norms, and perceived behavioral control significantly influence consumers' intentions to purchase green products (Hidayat & Sananta, 2024).

Corporate social responsibility (CSR) is a significant factor influencing the adoption of green marketing practices among companies (Carroll, 2015). Research by (Rösl, et al., 2021) indicates that consumers are more likely to support brands that demonstrate a genuine commitment to social and environmental issues, leading to increased customer loyalty.

Empirical Literature Review

Recent studies underline the increasing significance of green marketing within the beverage industry, driven by changing consumer preferences and heightened environmental concerns. (Judijanto, et al., 2024) Conducted a comprehensive global survey that demonstrated companies with well-integrated green marketing strategies experienced notable improvements in customer loyalty, brand trust, and overall market positioning. Their research confirmed that clear eco-friendly messaging and sustainable practices directly impact consumer purchasing decisions and brand perception. Similarly, (Kim & Lee, 2020) found that environmentally conscious marketing efforts positively correlate with increased brand equity and consumer willingness to pay premium prices for sustainable products, emphasizing the strategic importance of green initiatives. Meanwhile, (Rösl, et

al., 2021) highlighted that transparency and authenticity in green marketing communications are critical for building long-term consumer relationships, reinforcing that sustainable branding is a competitive differentiator in the global beverage sector.

In the African context, a study by (Oduro, et al., 2021) accentuated the pivotal influence of environmental and government regulations on shaping green marketing practices among beverage companies. The study revealed that regulatory compliance compelled companies to adopt more sustainable practices, which subsequently improved their corporate image and stakeholder trust. It was noted that adherence to local environmental standards often acted as a catalyst for companies to innovate, such as investing in eco-friendly packaging and waste management solutions. Additionally, research by (Zhang & Yin, 2025) supported this finding, emphasizing that regulatory frameworks serve as both a compliance requirement and a strategic opportunity to enhance sustainability efforts. Furthermore, (Kamanzi & Ngetha, 2023) observed that organizations that proactively aligned with environmental policies gained competitive advantages, including better access to green markets and funding opportunities, reinforcing the importance of regulatory influence on green marketing development across African nations. Recent African studies, including (Oduro, et al., 2021) and (Akude, et al., 2025), confirm that strong environmental regulation such as Ghana's Environmental Protection Agency (EPA) policies and Zambia's EPR Regulations acts as a catalyst for corporate green marketing. Compliance requirements stimulate firms to redesign products, invest in eco-labelling, and educate consumers on recycling, thereby turning regulatory pressure into strategic marketing opportunity.

Within Zambia, recent research by (Mwansa, et al., 2023) documented a rising adoption of green marketing practices by plastic beverage companies, largely in response to tightening regulations and increasing consumer demand for environmentally responsible products. The study highlighted the effectiveness of initiatives such as take-back programs and environmental awareness campaigns in improving brand image and consumer loyalty. It was found that these practices not only fostered a positive corporate reputation but also encouraged consumer participation in sustainability efforts. Complementary findings by (Phiri & Banda, 2023) indicated that the increased focus on eco-friendly marketing is contributing to a shift in consumer preferences, with more buyers prioritizing sustainability credentials when making purchasing decisions. Moreover, (Chansa & Mulenga, 2023) identified challenges such as limited consumer awareness and resource constraints, which hinder the full implementation of green marketing strategies. This underscores the importance of stakeholder engagement and consumer education to maximize the impact of green marketing in the Zambian beverage industry.

A comparative analysis by (Phiri & Banda, 2023) further elucidated the challenges faced by Zambian companies in the integration of green marketing strategies, emphasizing the crucial role of stakeholder collaboration and consumer education in overcoming these hurdles. Their findings revealed that many firms struggle with limited resources and knowledge gaps regarding effective sustainability practices, which reduces the potential for impactful green marketing campaigns. The study proposed that increased collaboration with government agencies, NGOs, and local communities could facilitate knowledge transfer and resource sharing, thereby enhancing sustainability initiatives. It also pointed out that consumer education campaigns are essential for shifting perceptions and increasing support for eco-friendly products. According to research by (Mwansa, et al., 2023), addressing these barriers requires a coordinated approach involving policy reforms, capacity-building, and awareness initiatives to develop a sustainable ecosystem conducive to green marketing growth in Zambia. Collectively, these studies underscore the critical need for integrated efforts to enhance the effectiveness of green marketing in the local context. These empirical findings underscore the significance of green marketing in promoting environmental sustainability within the beverage sector, particularly in the context of Zambian regulations and consumer preferences.

Lessons Learnt from Reviewed Literature

The fundamental lesson from the existing literature is that consumer education is crucial to the effectiveness of green marketing strategies. Companies that actively invest in educating their customers about environmental challenges, such as climate change, plastic pollution, and resource scarcity, tend to foster greater awareness and understanding. This educational approach helps consumers recognize the environmental benefits of eco-friendly products and understand their role in sustainability efforts. For instance, using informative campaigns, labeling, and transparent communication can demystify eco-labels and certifications, reducing skepticism and building

trust. Studies by (Kotler & Keller, 2021) demonstrate that when consumers are well-informed, they are more likely to support sustainable brands, demonstrate environmentally responsible behaviors, and remain loyal over the long term.

A central lesson emerging from the literature is that effective green marketing depends not only on voluntary corporate initiatives but also on supportive and well enforced policy frameworks. Regulatory instruments such as Zambia's EPR Regulations and the Environmental Management Act provide the structural incentives that drive innovation and accountability in green marketing practices.

Another key lesson is the significant value of stakeholder collaboration in advancing green marketing objectives. Engaging with a diverse range of stakeholders including suppliers, local communities, non-governmental organizations (NGOs), and industry associations can amplify the impact of sustainability efforts. Collaborative initiatives enable companies to access additional expertise, innovative ideas, and necessary resources that they may lack internally. (Kumar, et al., 2020) Emphasize that stakeholder engagement not only enhances resource sharing but also strengthens the authenticity and credibility of a company's green marketing message, leading to more effective communication, better community relations, and greater overall impact in promoting environmental sustainability.

An additional lesson from the literature is the importance of consumer attitudes and behavioral intentions in determining the success of green marketing. This can shape the study by incorporating an objective that examines how perceptions influence willingness to support eco-friendly initiatives (Kim & Lee, 2020). The research instruments therefore include Likert-scale items measuring attitudes, purchase intentions, and behavioral tendencies. Analytically, this allows the study to move beyond awareness and evaluate actual behavioral outcomes of the population study in Lusaka.

The literature also highlights the role of corporate image and brand positioning in green marketing effectiveness (Charter & Tischner, 2017). This can influence the study by including an objective that assesses how environmentally responsible branding affects perceptions among employees and marketers.

Another key lesson is the significance of internal organizational commitment to sustainability (Kamanzi & Ngetha, 2023). This can be done by incorporating an objective that evaluates the extent to which employees and marketers are aligned with green marketing goals. The research instruments include items on organizational culture, internal communication, and management support for sustainability.

Lastly, the literature further emphasizes the role of communication channels and message delivery in shaping the effectiveness of green marketing. This is by examining which communication strategies (e.g., advertising, labeling, and digital platforms) are most effective. The instruments capture respondents' exposure to and evaluation of different communication channels. Analytically, this helps identify which methods are most impactful in promoting sustainability messages.

Research Gap

Despite the growing body of literature on green marketing, there remains a notable gap in understanding the specific challenges faced by plastic beverage companies in Zambia. Most studies focus on broader trends and practices without delving into the unique contextual factors influencing green marketing in this region. Further research is needed to explore the barriers and facilitators specific to Zambian companies, including cultural attitudes towards sustainability and regulatory compliance challenges. While several studies recognize the existence of environmental laws and regulations, few have critically examined how these frameworks specifically influence marketing practices within Zambia's plastic beverage industry. There remains limited empirical evidence on how compliance with policies such as the EPR Regulations or the Plastic Carrier Bags Regulations directly affects consumer perception, brand loyalty, and corporate competitiveness.

Additionally, there is a lack of empirical studies examining the long-term impact of green marketing initiatives on consumer behavior in Zambia. While some research highlights the immediate benefits of eco-friendly practices, more longitudinal studies are required to assess how these initiatives influence consumer loyalty and

purchasing decisions over time. Furthermore, there is a need for research that evaluates the effectiveness of specific green marketing practices, such as take-back programs and eco-friendly product design, within the Zambian context. While existing literature discusses these practices in general terms, empirical studies focusing on their implementation and outcomes in Zambia can provide actionable insights for companies aiming to improve their sustainability efforts.

METHODOLOGY

Research Philosophy and Approach

This study adopted a positivist research philosophy, which posits that an objective reality exists independently of individual perceptions. This philosophy aligned with the goal of systematically investigating how plastic beverage companies in Lusaka implement green marketing strategies to foster environmental sustainability.

Research Design

Descriptive research was utilized to address key research questions concerning how plastic beverage companies in Lusaka employ green marketing practices. This design provided a comprehensive overview of the specific strategies used, enabling researchers to identify common trends across the industry.

The Population and Location of the Study

The target population included employees working in plastic beverage companies and marketers of plastic beverages companies. This diverse group reflects the various stakeholders involved in the production, distribution, and consumption of beverages packaged in plastic, providing a holistic view of the industry's dynamics. The study was done in Lusaka, the capital city of Zambia. The city is home to several plastic beverage companies, ranging from large-scale manufacturers to smaller enterprises, each contributing to the local economy.

Sampling Frame

For this study, the sampling frame included marketers and employees working in food and beverage companies in Lusaka. The sampling frame consisted of 5 major companies that package their beverages in plastic bottles. These companies were selected because they are major players in Lusaka's plastic beverage industry, representing a broad spectrum of market leaders and diverse operational practices. Their inclusion ensured the sample captures varied perspectives on green marketing efforts and environmental practices within the industry.

Sampling Techniques

The companies were selected using stratified random sampling. Thereafter, simple random sampling was employed to select participants from the larger population of employees involved in marketing and supply chain activities within plastic beverage companies. This method ensured that different subgroups within the population were adequately represented, allowing for more accurate generalizations of the findings. Stratified random sampling minimized selection bias and enhanced the reliability of the results, facilitating straightforward statistical analysis.

The Sample Size

To determine an adequate sample size, the study used Cochran formula to determine the sample size which gave a total of 196 respondents.

Research Inclusiveness and Exclusiveness

Only participants perceived to have knowledge of green marketing were included in the study. (Singh, et al., 2019) Stated that including knowledgeable participants ensures the validity and relevance of the research findings. Individuals perceived to lack knowledge of green marketing were excluded from the study.

Data Collection Instruments

Data was collected using a structured questionnaire designed to align with the study's objectives. The questionnaire was administered in both online and paper-based formats to ensure accessibility. It assessed green marketing practices employed by food and beverage companies and also distributors and plastic manufacturers companies in Lusaka, utilizing a 1-5 Likert scale for responses. Additionally, it analyzed factors influencing the utilization of these practices, focused on internal challenges like management support and external challenges such as regulatory compliance. The questionnaire proposed measures to enhance the effectiveness of green marketing in promoting environmental sustainability. This comprehensive approach aimed at gathering valuable insights for improving sustainability efforts in the industry.

The Data Collection Procedures

This research employed both primary and secondary data collection methods. Primary data was gathered through structured questionnaires specifically designed for employees of plastic beverage companies. The questionnaires were administered in various formats, including online surveys distributed via email and paper-based forms delivered during in-person meetings or company events. This approach ensured that respondents chose the method most convenient for them, thereby enhancing participation rates. Secondary data involved reviewing existing literature, industry reports, and relevant regulatory documents that provided context for the study. This combined approach aimed at creating a robust data framework that supports the assessment of green marketing practices effectively.

The Validity and Reliability of the Instruments

To ensure validity, a pilot study was conducted with one selected company that uses plastic beverage packaging. A draft questionnaire was tested with five participants to assess clarity and relevance. The results informed necessary adjustments before the main study was undertaken. Reliability concerns the consistency of the measures (Bell, et al., 2022). By conducting the pilot study and refining the questionnaire based on feedback, the study enhanced the reliability of the findings.

A reliability test of the survey questionnaire variables was ran to determine the instrument's validity using SPSS, and the result was between 0.843 or 0.945. The test focused on assessing the consistency of the Likert scale as it is essential in interpreting the data. The test reduced the potential risk of misinterpretation. A standard acceptable reliability threshold of 0.70 or higher is required for all multi-item scales, ensuring that the respondents interpreted the operationalized variables consistently. Thus, the study concludes that there was internal consistency in the survey questions for the variables.

The Data Analysis

Data analysis begun with synthesizing the collected data, ensuring completeness and accuracy. The data was entered into the Statistical Package for the Social Sciences (SPSS) software for analysis. Descriptive statistics summarized the data, including measures such as means and standard deviations, which provided insights into the challenges faced by companies in implementing green marketing. Specifically, responses from the Likert scale were analyzed by calculating the mean scores for each statement to gauge overall agreement levels among respondents. Frequency tables and graphical representations illustrated the findings, making them accessible to stakeholders. Inferential statistics were also employed to identify significant relationships or differences among groups, enhancing the depth of analysis.

Ethical Considerations

Ethical considerations are paramount in research involving human subjects (Bell, et al., 2022). Participants were informed that their participation was voluntary and that they could withdraw at any time without consequences. Anonymity was maintained, ensuring that responses can't be traced back to individuals. The researcher clarified that the information obtained was used solely for academic purposes and not for commercial gain, safeguarding the interests of all participants. Ethical clearance was obtained from the relevant ethics committee at the

University of Zambia to ensure compliance with ethical standards throughout the research process. To ensure trustworthiness, a clear research design was established, pilot testing of instruments was conducted, validated Likert scales were employed, and stratified random sampling was utilized to enhance generalizability. To enhance credibility, the study maintained transparency in data collection, employ rigorous statistical methods, adhere to ethical standards, and provide clear reporting of findings, allowing stakeholders to confidently assess the validity of the results.

RESULTS

Demographic Data

Type of Company Best Describes the Organization

Table 1: Demographic Data, Source: Field Data (2026)

Type of company	Frequency	Percent	Valid Percent	Cumulative Percent
Beverage company with outsourced packaging	1	0.5	0.5	0.5
Plastic beverage manufacturing company	195	99.5	99.5	100.0
Total	196	100.0	100.0	

In the demographic data section, the survey results indicate that the vast majority of respondents 99.5 percent represent plastic beverage manufacturing companies, while a mere 0.5 percent belong to beverage companies that outsource packaging. This overwhelming representation of plastic beverage manufacturers suggests a focused industry segment, providing insights specifically relevant to this sector. The data implies that the findings will predominantly reflect the practices and perceptions of companies directly involved in plastic beverage production, which may not fully encompass the broader beverage industry landscape. Such a concentration could lead to targeted recommendations for improving green marketing practices within this specific context.

Approximate Number of Employees in the Organization

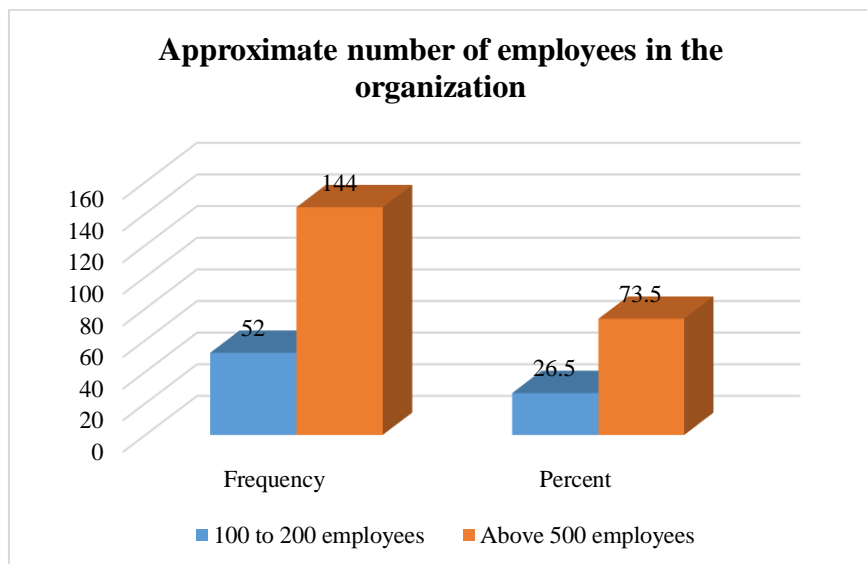


Figure 2 Number of Employees, Source: Field Data (2026)

The graph presents data on the approximate number of employees in the organizations surveyed. The majority of the organizations (144 out of 196) have above 500 employees, indicating that the surveyed companies are predominantly large-sized enterprises. This is further supported by the percentage breakdown, where 26.5 percent of the organizations have between 100 to 200 employees, while 73.5 percent have above 500 employees. This suggests that the sample is skewed towards medium to large-sized plastic beverage manufacturing companies, with a smaller proportion of small enterprises. The data provides insights into the scale and distribution of the companies involved in the plastic beverage industry. The predominance of large-sized organizations suggests that the green marketing practices and challenges identified in the survey may be more representative of this segment of the industry, rather than the larger players. This information can help inform targeted strategies and policy interventions to promote sustainable practices among the key players in the sector.

Duration the Organization Been Operating in the Plastic Beverage Industry

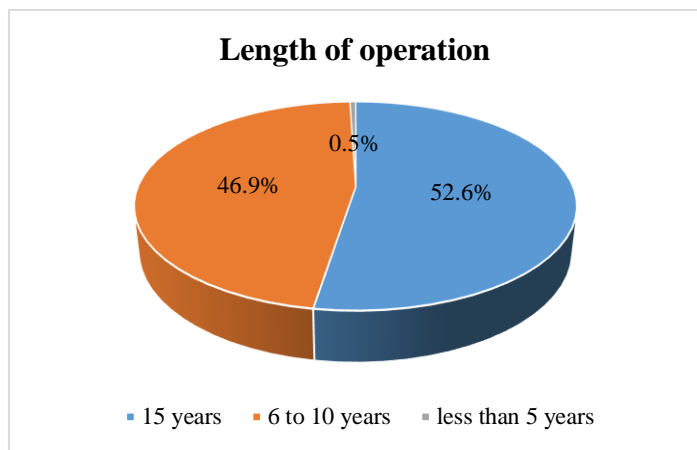


Figure 3 Length of Operation, Source: Field Data (2026)

The pie chart presents the length of operation for the organizations surveyed in the plastic beverage industry. The key findings are: 52.6 percent of the organizations have been operating for 15 years or more, indicating a significant presence and experience in the industry. 46.9 percent of the organizations have been operating for 6 to 10 years, suggesting a substantial portion of the sample represents relatively established companies in the plastic beverage sector. Only 0.5 percent of the organizations have been operating for less than 5 years, which is a relatively small proportion compared to the more experienced companies.

This data suggests that the surveyed companies are predominantly well-established players in the plastic beverage industry, with the majority having been in operation for 15 years or more. The high percentage of companies with 6 to 10 years of experience further reinforces the maturity of the industry represented in the sample. The longevity of these organizations may provide valuable insights into their green marketing practices, challenges, and perceptions, as they have likely navigated the evolving landscape of environmental regulations and consumer demands over an extended period. This information can help inform strategies and policies that cater to the needs and experiences of both newer and more established players in the plastic beverage industry.

Inferential Statistics

Model Summary

Table 2: Model Summary, Source: Field Data Analysis (2026)

Model Summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate

1	0.551 ^a	0.304	0.293	0.223
a. Predictors: (Constant), Take-Back Programming, Environmental awareness Campaigns, Eco-friendly product designing				

The model summary indicates a moderate model fit, with an R² of 0.304 and an adjusted R² of 0.293. This shows that approximately 30.4 percent of the variance in environmental sustainability is explained by the independent variables: take-back programming, environmental awareness campaigns, and eco-friendly product designing. The results indicate a connection to study objectives, showing;

Analyze green marketing practices: The model confirms that these practices are present and measurable, suggesting that plastic beverage companies actively engage in sustainability initiatives.

Examine factors influencing utilization: The explanatory power of the model highlights that these variables collectively influence environmental sustainability, indicating that the adoption of green marketing is shaped by both internal company strategies and external pressures.

Identify measures to enhance effectiveness: Since the R² is moderate rather than high, it suggests that while current practices have an impact, there is room to strengthen their effectiveness through better implementation, integration, and alignment with sustainability goals.

In essence, the model summary emphasizes that green marketing practices are meaningful predictors, but additional interventions are needed to maximize their effect on environmental outcomes.

ANOVA

Table 3: Anova, Source: Field Data Analysis (2026)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.154	3	1.385	27.926	0.000 ^b
	Residual	9.520	192	0.050		
	Total	13.673	195			
a. Dependent Variable: Environmental sustainability						
b. Predictors: (Constant), Take-Back Programming, Environmental awareness Campaigns, Eco-friendly product designing						

The ANOVA results show that the overall model is statistically significant, with F = 27.926 and p < 0.001, which is less than the commonly used significance level of 0.05. This suggests that the independent variables collectively have a significant influence on the dependent variable, environmental sustainability. The R-squared value is not provided, but the significant F-statistic implies that the model explains a substantial portion of the variation in environmental sustainability. The results show a connection to the study as follows;

Analyze green marketing practices: The significant F-value confirms that the practices under study, take-back programming, awareness campaigns, and eco-friendly design are not only implemented but also systematically influence outcomes.

Examine factors influencing utilization: The collective significance suggests that these factors are interrelated and jointly shape the impact of green marketing, emphasizing the need to consider both internal and external influences.

Identify measures to enhance effectiveness: The result highlights that interventions targeting these variables are likely to improve environmental sustainability, and resources should be strategically allocated to the practices with the greatest measurable impact.

Overall, the ANOVA supports the conclusion that green marketing practices in companies that use plastic material for packaging are important predictors of sustainability, but it also signals the need for more refined strategies to increase their effectiveness.

Regression Coefficients

Table 4: Regression Coefficients, Source: Field Data Analysis (2026)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.007	0.902		13.314	0.000
	Take-Back Programming	-0.082	0.038	-0.312	-2.139	0.034
	Environmental awareness Campaigns	-1.991	0.224	-0.537	-8.893	0.000
	Eco-friendly product designing	0.112	0.077	0.212	1.458	0.147

a. Dependent Variable: Environmental sustainability

The regression coefficients table provides further insights into the relationships between the independent variables and environmental sustainability. The findings indicate that take-back programming has a negative and statistically significant effect on environmental sustainability ($B = -0.082$, $\beta = -0.312$, $p = 0.034$). The negative beta value suggests an inverse relationship, while the magnitude ($\beta = -0.312$) indicates a moderate effect size. From a TPB/TRA perspective, take-back programs are expected to reinforce subjective norms by signaling organizational commitment to sustainability. This implies that, although take-back programs are intended to support sustainability, their current implementation within beverage companies may be ineffective or poorly managed, leading to unintended negative outcomes.

Similarly, environmental awareness campaigns show a strong negative and statistically significant relationship with environmental sustainability ($B = -1.991$, $\beta = -0.537$, $p = 0.000$). According to TPB and TRA, increased awareness should positively influence attitudes and, ultimately, behavior. However, the strong negative beta coefficient suggests a disconnection between awareness and actual behavioral outcomes. This implies that while campaigns may be increasing knowledge, they are failing to positively shape attitudes or translate into actionable behavior. Within the TPB framework, this could indicate weak perceived behavioral control, where employees and marketers may understand sustainability issues but feel constrained by organizational systems, lack of resources, or operational limitations in acting sustainably. It may also reflect issues with message credibility or relevance, limiting the formation of positive behavioral intentions.

In contrast, eco-friendly product designing exhibits a positive but statistically insignificant relationship with environmental sustainability ($B = 0.112$, $\beta = 0.212$, $p = 0.147$). This aligns more closely with TPB and TRA assumptions, as product design improvements can directly shape attitudes by making sustainable choices more

accessible and practical. However, the lack of statistical significance suggests that these efforts are not yet strong enough to meaningfully influence behavior or outcomes. Within the TPB framework, this may reflect limited visibility or insufficient integration of eco-friendly design into everyday operations, thereby weakening its effect on behavioral intentions.

Overall, the standardized beta coefficients highlight that the most influential factors in the model are those that should theoretically shape attitudes and norms, yet their negative effects suggest a breakdown in the attitude - behavior link proposed by TPB and TRA. This indicates that awareness alone is insufficient, it must be accompanied by enabling conditions that enhance perceived control and reinforce positive behavioral norms.

Correlations

Table 5: Correlations, Source: Field Data Analysis (2026)

Correlations					
		Take-Back Programming	Environmental awareness Campaigns	Eco-friendly product designing	Environmental sustainability
Take-Back Programming	Pearson Correlation	1	-0.531**	-0.031	0.531**
	Sig. (2-tailed)		0.000	0.668	0.000
	N	196	196	196	196
Environmental awareness Campaigns	Pearson Correlation	-0.531**	1	-0.075	0.005
	Sig. (2-tailed)	0.000		0.294	0.943
	N	196	196	196	196
Eco-friendly product designing	Pearson Correlation	-0.031	-0.075	1	-0.068
	Sig. (2-tailed)	0.668	0.294		0.343
	N	196	196	196	196
Environmental sustainability	Pearson Correlation	0.531**	0.005	-0.068	1
	Sig. (2-tailed)	0.000	0.943	0.343	
	N	196	196	196	196
**. Correlation is significant at the 0.01 level (2-tailed).					

The correlation results provide deeper insight into how different green marketing practices relate to environmental sustainability, directly addressing the study objectives.

Firstly, take-back programming shows a moderate and statistically significant positive relationship with environmental sustainability ($r = 0.531, p < 0.01$). This suggests that companies that actively implement systems for collecting and recycling used plastic products are more likely to achieve improved sustainability outcomes. In relation to the first objective, this indicates that take-back programmes are not only commonly used but are

also one of the most effective green marketing practices in the plastic beverage sector. Substantively, this reflects the practical impact of circular economy initiatives, where waste reduction is directly linked to sustainability performance.

Secondly, environmental awareness campaigns exhibit a significant negative correlation with take-back programming ($r = -0.531$, $p < 0.01$) and a non-significant relationship with environmental sustainability ($r = 0.005$, $p > 0.05$). This finding is important for the second objective, as it suggests that although awareness campaigns are widely implemented, they may not be effectively influencing sustainability outcomes. One possible explanation is that these campaigns are more symbolic than action-oriented, failing to translate consumer awareness into measurable environmental impact. It may also indicate a disconnection between communication efforts and actual behavioral change among consumers.

Thirdly, eco-friendly product designing shows weak and statistically insignificant correlations with both environmental sustainability ($r = -0.068$, $p > 0.05$) and other variables. This implies that, on its own, eco-friendly design does not significantly contribute to sustainability outcomes. In relation to the study objectives, this suggests that simply introducing biodegradable or recyclable packaging is insufficient if it is not supported by complementary systems such as recycling infrastructure or consumer participation mechanisms.

Furthermore, the weak relationships among environmental awareness campaigns, eco-friendly design, and sustainability highlight the lack of integration among green marketing strategies. This is a critical insight for the third objective, as it indicates that the effectiveness of green marketing in promoting sustainability depends on how well different strategies are coordinated. For example, awareness campaigns should reinforce take-back programmes, and eco-friendly designs should be supported by proper disposal systems.

Overall, the correlation patterns demonstrate that action-based strategies (such as take-back programming) have a stronger impact on sustainability than communication based or design based strategies when implemented in isolation. These findings emphasize the need for a holistic and integrated approach to green marketing, where companies combine product design, consumer education, and waste management systems to achieve meaningful environmental sustainability outcomes in the plastic beverage sector.

DISCUSSION

This chapter discusses the findings from the survey conducted on plastic beverage companies regarding their green marketing practices, the factors influencing these practices, and measures to enhance their effectiveness. The discussion applies the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA) to interpret the results, linking organizational norms, attitudes, and perceived behavioral control to the adoption of green marketing strategies. By analyzing the demographic composition of the surveyed companies, current green marketing initiatives, and the barriers encountered, this chapter situates the findings within a theoretical framework that explains the relationship between intention, behavior, and environmental outcomes in the sector.

The demographic data indicates a predominance of respondents from plastic beverage manufacturing companies (99.5 percent), with the majority being large-sized enterprises (73.5 percent having above 500 employees). From a TPB perspective, the size and tenure of these organizations can influence the “perceived behavioral control” over green marketing implementation. Large and well-established companies, especially those operating for 15 years or more, often have the resources, knowledge, and organizational structures that facilitate the adoption of sustainable practices (Akude, et al., 2025). According to TRA, these firms are also likely to have more established “behavioral attitudes” toward sustainability, given their prolonged exposure to environmental regulations and evolving consumer expectations. Thus, their demographic characteristics suggest that these companies possess both the capability and experience to engage in green marketing, even if actual practice may lag behind intention.

Survey results indicate a concerning lack of structured green marketing strategies, with most respondents reporting no formal frameworks guiding their sustainability initiatives. TPB suggests that behavior is strongly influenced by intention, which in turn is shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). The absence of formal strategies reflects a gap in both organizational norms (subjective norms)

and perceived efficacy (behavioral control), leading to limited execution of green marketing practices. This finding resonates with existing literature suggesting that many companies struggle to implement structured green marketing strategies effectively (Peattie & Crane, 2021). Companies may adopt green marketing practices primarily to improve public image or meet regulatory expectations rather than out of a genuine commitment to sustainability. This can result in fragmented or symbolic initiatives that lack measurable environmental impact.

While CSR initiatives dominate (96.4 percent of respondents), this reliance reflects a positive but superficial “attitude” toward sustainability in TRA terms. Firms demonstrate favorable behavioral intentions, yet these intentions do not translate into actionable operational practices. This is consistent with literature highlighting the risk of green washing, where companies signal sustainability without substantial changes. (Kim & Lee, 2020) Emphasize the importance of clear communication regarding green initiatives, asserting that effective messaging is crucial for building consumer trust and engagement. Similarly, the observed disconnect between recognition of eco-friendly product design and its implementation indicates that while firms have positive intentions TRA, low perceived behavioral control and weak structural support hinder the actual behavior TPB.

The data also indicates a gap between the recognition of eco-friendly product design and its actual implementation. While companies may acknowledge the importance of using sustainable materials and practices, only a small percentage reported regularly reviewing product designs to reduce plastic content. This reflects a significant disconnect between intention and action, suggesting that many companies fail to translate their sustainability goals into practical, actionable strategies. (Bocken, et al., 2016) Argue that organizations often struggle to operationalize their sustainability objectives, leading to missed opportunities for innovation and improvement. This gap highlights the need for plastic beverage companies to develop comprehensive green marketing strategies that integrate eco-friendly practices at both the product and operational levels.

Furthermore, the lack of effective monitoring and evaluation mechanisms for green marketing initiatives contributes to the limited effectiveness of these practices. Companies may implement various green initiatives but fail to assess their impact or success, resulting in a lack of accountability and transparency. This aligns with findings from (Mishra, et al., 2021), who suggest that effective green marketing requires a systematic approach to monitoring and reporting environmental performance. By establishing clear metrics and evaluation processes, companies can better understand the effectiveness of their green initiatives and make informed decisions about future strategies. This systematic approach can also enhance consumer trust, as stakeholders increasingly demand transparency regarding corporate sustainability efforts.

From the above, it can be stated that the findings indicate that while there is an awareness of the importance of green marketing practices among plastic beverage companies, significant gaps remain in their implementation and effectiveness. This possible reason relates to the nature of consumer awareness campaigns. Awareness alone does not automatically lead to behavioral change. Consumers may understand environmental issues but still prioritize convenience, affordability, and product availability over sustainability considerations. In the context of plastic beverage consumption, economic realities and limited access to recycling infrastructure may discourage environmentally responsible behavior despite increased awareness. Furthermore, some campaigns may focus more on promotional messaging than practical guidance, reducing their ability to influence long-term behavioral change. To enhance their green marketing efforts, these companies must prioritize the development of formal strategies, integrate eco-friendly practices into their operations, and establish robust monitoring and evaluation mechanisms. By addressing these gaps, plastic beverage companies can better position themselves as leaders in sustainability within the industry, ultimately benefiting both their business and the environment.

The analysis of factors influencing green marketing practices reveals that corporate social responsibility (CSR) commitments and competitive pressures are perceived as significant motivators for adopting sustainable practices. This finding aligns with the TPB, which posits that organizational norms and external pressures can drive sustainable practices (Ajzen, 1991). TRA similarly posits that attitudes, shaped by beliefs about outcomes, drive behavior here, the perceived reputational and competitive benefits reinforce positive attitudes toward green marketing. Companies that prioritize CSR are more likely to engage in green marketing as part of their overall business strategy, viewing sustainability as integral to their brand identity. However, the data also indicates that the influence of Zambian environmental regulations and consumer demand on the adoption of green marketing is relatively low, suggesting a disconnection between regulatory frameworks and corporate behavior.

The weak influence of environmental regulations on green marketing practices raises concerns about the effectiveness of current policies in promoting sustainability within the plastic beverage sector. TPB would predict that external regulatory pressure should increase perceived behavioral control and thus behavioral intention; however, the data indicates a divergence from this theoretical expectation. (Oduro, et al., 2021) Emphasize that strong regulatory environments can enhance green marketing adoption by providing clear guidelines and incentives for companies to implement sustainable practices. The findings imply that regulatory frameworks initiatives appear to have limited influence on environmental sustainability outcomes. One possible explanation is the inconsistency in the enforcement of environmental regulations. Although policies such as Extended Producer Responsibility (EPR) exist, limited monitoring, weak enforcement mechanisms and inadequate institutional support may reduce their effectiveness. As a result, some companies may comply only superficially without fully integrating sustainability into their operations. This disconnect highlights the need for policymakers to strengthen regulatory frameworks and ensure that they are aligned with the sustainability goals of the industry.

Moreover, the findings suggest that internal factors, such as company culture and leadership commitment, play a crucial role in influencing green marketing practices. Companies with strong leadership support for sustainability initiatives are more likely to prioritize green marketing efforts and allocate resources toward implementing eco-friendly practices. This aligns with the findings of (Kim & Lee, 2020), who argue that organizational culture significantly impacts the adoption of sustainable practices. Therefore, fostering a culture that values sustainability and encourages employee engagement in green initiatives is essential for enhancing the effectiveness of green marketing.

Additionally, consumer awareness and preferences significantly impact the adoption of green marketing practices. Consumer awareness, although measured as a weak predictor in the analysis, still plays a strategic role; TRA indicates that even marginal shifts in consumer expectations can gradually influence firm behavior when linked to market incentives. Although the survey indicated a low perceived influence of consumer demand on green marketing, it is essential to recognize that informed consumers are increasingly seeking environmentally friendly products. This trend is supported by research from (Kim & Lee, 2020), which highlights the growing importance of consumer preferences in shaping corporate sustainability strategies. Companies that fail to engage with consumers on sustainability issues may miss opportunities to align their marketing efforts with consumer expectations, ultimately limiting their market competitiveness.

The factors influencing the utilization of green marketing practices among plastic beverage companies are multifaceted, involving a combination of internal commitments, external pressures, and consumer expectations. To enhance their green marketing efforts, companies must address the disconnection between regulatory frameworks and corporate behavior, foster a culture of sustainability within their organizations, and actively engage with consumers to understand their preferences and demands. By doing so, plastic beverage companies can improve their sustainability performance and better position themselves in an increasingly competitive market.

The findings suggest that interventions targeting the key components of TPB; attitude, subjective norms, and perceived behavioral control, can enhance green marketing effectiveness. Increased consumer education addresses the attitude component, enabling consumers to form positive beliefs about eco-friendly products, which can, in turn, influence companies' behavioral intentions. The strong consensus on the need for consumer education aligns with findings by (Chansa & Mulenga, 2023), who note that informed consumers are more likely to support sustainable practices. By educating consumers about the benefits of eco-friendly products and the importance of sustainability, companies can foster a more engaged customer base that is willing to support their green initiatives. This education can take various forms, including marketing campaigns, community outreach programs, and partnerships with educational institutions to promote environmental awareness.

Collaboration with stakeholders strengthens subjective norms and perceived behavioral control in line with the TPB, as companies gain access to shared knowledge, resources, and collective incentives to implement sustainability measures. This collaborative approach can lead to innovative solutions and shared best practices that drive sustainability across the industry. (Kamanzi & Ngetha, 2023) Emphasize that stakeholder collaboration

is essential for creating a supportive environment for green marketing initiatives, as it encourages knowledge sharing and collective action toward common sustainability goals.

Similarly, stronger regulatory support enhances perceived behavioral control by providing clear guidance and enforcement (TPB), thereby reducing barriers to implementing green initiatives (TRA). The findings indicate a need for policymakers to strengthen enforcement of existing regulations and provide clearer guidelines that facilitate the implementation of sustainable practices. This includes developing incentives for companies that adopt eco-friendly practices and ensuring that regulations are aligned with the sustainability goals of the industry. By creating a supportive regulatory environment, governments can encourage companies to prioritize sustainability in their operations and marketing strategies and this changes the reasoning of users.

Additionally, investment in sustainable technologies also increases behavioral control by giving firms practical means to execute their green intentions. Through the lens of the TRA, this consistent practice will activate a continuous behavioral action. Companies that invest in eco-friendly production processes and materials are better positioned to meet consumer demand for sustainable products. This investment can lead to cost savings in the long run, as efficient technologies often reduce waste and lower operational costs. (Rösl, et al., 2021) Highlight the importance of transparency in marketing claims, asserting that companies must demonstrate their commitment to sustainability through tangible actions, such as adopting innovative technologies and practices that minimize environmental impact.

From a regression perspective, models predicting the effectiveness of green marketing showed higher coefficients for combined interventions compared to individual CSR or regulatory measures alone. This indicates that multifaceted strategies, integrating internal commitment, consumer engagement, regulatory support, and technology adoption, are significantly more effective in translating behavioral intentions into sustainable practices. Companies must adopt a holistic approach that integrates these elements to achieve meaningful improvements in their environmental sustainability efforts. By doing so, plastic beverage companies can enhance their green marketing strategies and contribute to a more sustainable future.

Study Limitations

While this study provides valuable insights into green marketing practices in the plastic beverage sector, several methodological limitations should be acknowledged. First, the sample was restricted to employees of the companies rather than including consumers or other external stakeholders. Incorporating consumer perspectives would provide a more comprehensive understanding of attitudes, subjective norms, and behavioral intentions toward green products, consistent with the predictions of the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA). The study's focus on plastic beverage manufacturing companies excluded beverage firms that rely on outsourced packaging. The study employed a cross-sectional research design, collecting data at a single point in time. This design restricts the ability to establish causal relationships between factors such as corporate social responsibility, competitive pressures, regulatory influence, and the adoption of green marketing practices. Longitudinal studies would be necessary to capture the dynamic evolution of sustainability practices and assess their long-term effectiveness. The research could also be strengthened by incorporating a mixed-methods approach that combines quantitative findings with qualitative interviews or case studies to provide deeper insights into organizational practices and stakeholder perceptions. The study relied on self-reported data from company employees regarding their own green marketing practices. While providing valuable internal perspectives, this approach introduces the risk of social desirability bias, where respondents may overstate their engagement in sustainability initiatives or present the company in a more favorable light. Consequently, the reported extent and effectiveness of green marketing practices may not fully reflect actual organizational behavior.

CONCLUSION

Objective 1: To assess the current green marketing practices employed by plastic beverage companies.

The findings reveal a significant lack of robust green marketing practices among plastic beverage companies, with a notable absence of formal green marketing strategies. The overwhelming reliance on corporate social

responsibility (CSR) as the primary form of green marketing indicates a superficial engagement with sustainability, rather than a comprehensive approach that integrates eco-friendly practices into all aspects of operations. This aligns with existing literature, which suggests that many organizations struggle to implement structured green marketing strategies effectively (Peattie & Crane, 2021). The lack of effective communication regarding green initiatives further exacerbates the issue, limiting consumer awareness and engagement in sustainability efforts.

Moreover, the data indicates that while companies recognize the importance of eco-friendly product design, actual implementation remains limited. The gap between intention and action highlights a critical need for these companies to develop comprehensive green marketing strategies that not only emphasize CSR but also focus on operational-level practices that drive meaningful change. Without such strategies, plastic beverage companies risk missing opportunities to enhance their sustainability performance and meet consumer expectations for environmentally responsible practices.

Objective 2: To identify the factors influencing the utilization of green marketing practices among these companies.

The analysis reveals that corporate social responsibility commitments and competitive pressures are significant motivators for adopting green marketing practices among plastic beverage companies. However, the influence of Zambian environmental regulations and consumer demand appears limited, suggesting a disconnection between regulatory frameworks and corporate behavior. This finding underscores the need for stronger regulatory support and clearer guidelines to encourage sustainable practices within the industry. The weak influence of environmental regulations raises concerns about their effectiveness in promoting sustainability, indicating that companies may not feel compelled to adopt green marketing strategies due to insufficient enforcement or perceived benefits.

Additionally, internal factors such as company culture and leadership commitment play a crucial role in shaping green marketing practices. Companies with strong leadership support for sustainability initiatives are more likely to prioritize green marketing efforts. This highlights the importance of fostering a culture that values sustainability and encourages employee engagement in eco-friendly initiatives. Furthermore, consumer awareness and preferences significantly impact the adoption of green marketing practices, emphasizing the need for companies to actively engage with consumers to align their marketing strategies with consumer expectations for sustainability.

Objective 3: To identify measures that can enhance the effectiveness of green marketing in promoting environmental sustainability in the plastic beverage sector.

The findings show that stronger regulatory support and investment in sustainable technologies are viewed as the most effective measures. This suggests that the company believes that stronger government policies and regulations, as well as investments in sustainable technologies, would significantly improve the impact of its green marketing initiatives. The findings suggest that a combination of internal commitment to sustainability, stronger external regulatory support, and consumer engagement through education and collaboration are essential for enhancing the effectiveness of green marketing in the plastic beverage sector.

Recommendations

- i. **Develop Formal Green Marketing Strategies:** The study revealed that most companies lack structured green marketing strategies, relying heavily on CSR initiatives without formal operational plans. Companies should establish clear sustainability goals, integrate eco-friendly practices into product design, production, and marketing, implement monitoring mechanisms, and conduct regular evaluations of green initiatives to ensure measurable impact.
- ii. **Environmental Awareness Campaigns:** While CSR activities are common, companies do not actively educate consumers about proper plastic disposal or recycling. Companies should launch targeted campaigns, for example, a beverage company may run a “Return Your Bottle” campaign encouraging customers to bring

back used plastic bottles for recycling. These can be done via social media, school programs, and community outreach to encourage proper waste separation and recycling behaviors among consumers.

- iii. **Enhance Communication of Green Initiatives:** The study indicated limited engagement in promoting responsible waste disposal in public spaces. Plastic beverage companies can partner with local authorities to promote messages like “Bin it Right,” and deploy clearly labeled disposal bins in high-traffic areas such as markets, bus stations, and town centers to reduce littering and encourage proper segregation of plastic waste. By making disposal points easily accessible, companies reduce the effort required for individuals to dispose of plastic bottles properly.
- iv. **Invest in Employee Training and Engagement:** Limited internal capacity and low employee engagement were noted as barriers to effective green marketing. Companies can develop training programs to educate employees on sustainability principles, operationalize eco-friendly practices, and encourage employees to become active advocates of the company’s green initiatives.
- v. **Strengthen Collaboration with Stakeholders:** The study found a lack of coordinated sustainability efforts with suppliers, customers, and community organizations. Companies can establish partnerships to co-develop sustainability strategies, share best practices and innovate jointly, ensuring green initiatives are more comprehensive and impactful across the value chain.
- vi. **Advocate for Stronger Regulatory Support:** The study showed that regulatory influence on green marketing adoption was weak, suggesting companies do not perceive current regulations as effective motivators. Companies should engage with policymakers to clarify environmental regulations, advocate for incentives for eco-friendly practices, and collaborate to enforce compliance, creating a supportive framework that encourages companies to prioritize sustainability.
- vii. **Increase Consumer Education Initiatives:** Consumer demand was reported as a weak driver of green marketing, implying low public awareness of sustainability issues. Companies should conduct educational campaigns highlighting eco-friendly product features, recycled packaging and environmental commitments, fostering an informed and engaged consumer base that supports sustainable purchasing decisions.
- viii. **Invest in Sustainable Technologies:** Findings show that many companies have not adopted innovative production processes or materials to reduce environmental impact. Companies should therefore allocate resources to acquire eco-friendly technologies and sustainable materials, improving operational efficiency, reducing waste and enabling companies to meet growing consumer demand for sustainable products.

Data Availability Statement

The data that support the findings of this study are not publicly available due to confidentiality agreements with participants and the proprietary nature of the information provided by the organizations involved. Any requests for data sharing will be reviewed to ensure participant confidentiality and adherence to both legal and the study’s ethical guidelines.

REFERENCES

1. Ajzen, I., 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 50(2), pp. 179-211.
2. Akude, D., Akuma, J., Kwaning, E. & Asiama, K., 2025. Green marketing practices and sustainability performance of manufacturing firms: Evidence from emerging markets. *Nature Environment and Pollution Technology*, 24(1).
3. Bell, E., Bryman, A. & Harley, B., 2022. *Research Methods: A Guide to Understanding and Applying Research Principles*. 6 ed. Oxford: Oxford University Press.
4. Bocken, N., Bakker, C. & Pauw, I., 2016. Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering*, 33(5), pp. 308-320.

5. Carroll, A., 2015. Corporate social responsibility: The centerpiece of competing and complementary frameworks. *Organizational Dynamics*, Volume 44, pp. 87-96.
6. Chansa, M. & Mulenga, P., 2023. Consumer perceptions and adoption of eco-friendly products in Zambia's beverage industry. *Zambian Journal of Business and Management*, 5(2), pp. 41-59.
7. Charter, M. & Tischner, U., 2017. *Sustainable Solutions: Developing Products and Services for the Future*. London: Routledge.
8. Competition and Consumer Protection Commission, 2023. *Annual Report 2023*, Lusaka: CCPC.
9. Environmental Management Act, 2011. No. 12 of 2011 Government of the Republic of Zambia, Lusaka: Government Printer.
10. Global Plastic Action Partnership, 2023. *Zambia: Plastics Policy Landscape Report*, Geneva: World Economic Forum, Geneva.
11. Haslam, S. & McGarty, C., 2024. *Research Methods and Statistics in Psychology*. 4 ed. London: SAGE Publication .
12. Hidayat, T. & Sananta, D., 2024. Theory of Planned Behavior on Green Marketing Influence to Green Purchase Decision. *Journal of Digital Marketing and Halal Industry*, Volume 6, pp. 1-16.
13. Judijanto, L. et al., 2024. Judijanto, L., Sholikin, A., Doktri Agus Tapaningsih, W.I., Green marketing dynamics in the food and beverage product sector: A bibliometric analysis of the influence on consumer loyalty. *West Science Social and Humanities Studies*, 2(10), pp. 1591-1601.
14. Kamanzi, J. & Ngetha, L., 2023. The role of environmental regulation in promoting green marketing practices among African firms. *African Journal of Marketing Management*, 15(3), pp. 102-118.
15. Kim, Y. & Lee, S., 2020. Green marketing and consumer behavior: Empirical evidence from the beverage sector. *Sustainability*, 12(9), pp. 1-17.
16. Kommuri, U. & Arumugam, T., 2024. Green Washing Unveiled: How it Impacts Stakeholder Perception as well as Sustainability Realities. *Shanlax International Journal of Arts, Science and Humanities(Online)*, Volume 11, pp. 96-101.
17. Kotler, P. & Keller, K., 2021. *Marketing Management*. 16 ed. Harlow: Pearson Education.
18. Kumar, V., Rahman, Z. & Kazmi, A., 2020. Sustainable supply chain management in emerging economies: A review and research agenda. *Journal of Cleaner Production*, 258(1), pp. 1-15.
19. Michelsen, O. & de Boer, L., 2020. Green marketing and consumer perception: A meta-analysis. *Business Strategy and the Environment*, 29(7), pp. 2975-2989.
20. Ministry of Tourism, 2007. Ministry of Tourism, Environment and Natural Resources. *National Policy on Environment*, Lusaka: Government of the Republic of Zambia.
21. Mishra, P., Jain, T. & Tripathi, G., 2021. Green marketing and its impact on consumer loyalty and environmental sustainability. *International Journal of Environmental Research and Public Health*, 18(12), pp. 1-16.
22. Mwansa, K., Chikonde, M. & Musonda, T., 2023. Adoption of green marketing practices by plastic beverage companies in Zambia. *University of Zambia Journal of Business Research*, 8(1), pp. 55-73.
23. Mwansa, K., Chikonde, M. & Musonda, T., 2023. Adoption of green marketing practices by plastic beverage companies in Zambia. *University of Zambia Journal of Business Research*, 8(1), pp. 55-73.
24. National Solid Waste Management Strategy, 2018. *National Solid Waste Management Strategy 2018–2030*. Ministry of Water Development, Sanitation and Environmental Protection, Lusaka: Government of the Republic of Zambia.
25. Oduro, R., Mensah, A. & Nyarko, B., 2021. Oduro, R., Mensah, Environmental regulations and green marketing adoption among beverage firms in Sub-Saharan Africa. *African Journal of Business and Economic Research*, 16(4), pp. 67-85.
26. Paul, J., Modi, A. & Patel, J., 2016. Predicting Green Product Consumption Using Theory of Planned Behavior and Reasoned Action. *Journal of Retailing and Consumer Services*, Volume 29, pp. 123-134.
27. Peattie, K. & Crane, A., 2021. *Green Marketing: Theory, Practice, and Challenges*. 3 ed. London: Routledge.
28. Phiri, S. & Banda, M., 2023. Challenges and opportunities in implementing green marketing in Zambia's beverage industry. *Copperbelt University Journal of Business and Economics*, 4(2), pp. 89-108.
29. Rösl, G., Meyer, J. & Weber, F., 2021. Sustainable branding and consumer trust: Evidence from the global beverage industry. *Journal of Business Research*, 132(4), pp. 702-714.

30. Singh, A., Srivastava, R. & Sajjad, S., 2019. Sustainable Resource Management through Innovative Management Practices. 1 ed. India: Bharti Publications.
31. Statutory Instrument No. 65 of 2018, 2018. The Plastic Carrier Bags and Flat Bags Regulations, Government Printer: Government of the Republic of Zambia. Lusaka.
32. Zambia Bureau of Standards, 2023. Environmental and Quality Certification Guidelines, Lusaka: ZABS.
33. Zambia Revenue Authority, 2023. Excise and Environmental Tax Framework Report 2023, Lusaka: ZRA.
34. ZEMA, 2018. Environmental regulations and compliance guidelines, Lusaka: ZEMA.
35. Zhang, H. & Yin, D., 2025. The role of green marketing strategies in promoting sustainable development. Applied Mathematics and Nonlinear Sciences.