

SUSTAINABLE MARKETING PRACTICES IN PHARMACY ALIGNING ENVIRONMENTAL RESPONSIBILITY WITH BUSINESS PRETENSIONS

Aurangzeb Khan^{*1}, Muzzammil Siraj², Nasrullah Khan³, Riffat Jabeen⁴

^{*1}SBB Dewan University, Karachi

²Lecturer, Department of Pharmacy, SBB Dewan University

³Lecturer, Department of Business Administration, SBB Dewan University, Karachi

⁴Lecturer, SBB Dewan University, Karachi

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Corresponding Author: *

Aurangzeb Khan

Abstract

This research discusses the assimilation of environmental sustainability into business approaches within the pharmaceutical industry. It highlights the connotation of sustainable marketing observes and their probable effect on both environmental and business consequences. To discover how pharmacies can augment environmental and business presentation through justifiable marketing. A mixed-methods approach was used, linking surveys and interviews. Quantitative data was scrutinized statistically, and qualitative facts were scrutinized subjectively. The outcomes indicate an optimistic connection between the adoption of sustainable marketing practices and enhanced business consequences, predominantly in customer satisfaction and brand reputation. The revision also originates that environmental initiatives absolutely encourage consumer perceptions and subsidize to long-term business attainment. Espousing sustainable marketing observes in the pharmaceutical sector augments both environmental sustainability and business performance, prominent to improved customer loyalty and financial consequences.

INTRODUCTION

In recent times, sustainability has surfaced as a critical consideration in business strategy across various diligence, including healthcare and Medicinal. The conception of sustainable marketing involves practices that not only promote products or services but also emphasize the significance of environmental responsibility. In the pharmaceutical sector, sustainable marketing can play a significant part in reducing environmental impact while also enhancing the brand image and profitability of businesses. As apothecaries grapple with adding nonsupervisory pressures and consumer demand for environmentally friendly practices, the alignment of environmental responsibility with business objectives

becomes both a strategic necessity and an implicit competitive advantage. Given the evolving geography of pharmaceutical assiduity, this study seeks to answer the following questions. How do sustainable marketing practices impact environmental and business issues in the drugstore sector? What strategies can apothecaries borrow to align their environmental liabilities with their business pretensions? The purpose of this study is to explore the relationship between sustainable marketing practices and business issues in the drugstore sector. Specifically, it aims to understand how apothecaries can effectively align their environmental liabilities with their business objects, thereby achieving a

balance between sustainability and profitability. This review focuses on the drugstore sector, examining how sustainable marketing practices are enforced and their impact on both environmental responsibility and business performance (Rejeb, Rejeb, & Zailani, 2021). The study covers colorful aspects of sustainable marketing, including eco-friendly packaging, waste reduction, and energy-effective operations. It also considers the nonsupervisory frame governing environmental practices in pharmaceutical assiduity and how businesses navigate these conditions. The study employs a mixed-system approach, combining quantitative data analysis with qualitative perceptivity. Data on sustainable marketing practices and business performance criteria are collected from a sample of apothecaries. Statistical ways like correlation and retrogression analysis are used to identify connections between variables. Also, interviews with assiduity experts and drugstore directors give environment and depth to the quantitative findings. This study posits that sustainable marketing practices in the drugstore sector not only fulfill environmental liabilities but also enhance business issues by perfecting brand character, client fidelity, and functional effectiveness. The alignment of environmental and business pretensions is essential for long-term success in a decreasingly competitive and environmentally conscious request. Pharmaceutical assiduity is uniquely deposited at the crossroads of healthcare and environmental sustainability. Apothecaries, as critical factors of the healthcare system, have the eventuality to significantly reduce their environmental footmark through sustainable practices. Still, this requires a delicate balance between maintaining profitability and clinging to environmental norms. The study situates itself within the broader converse on corporate social responsibility (CSR) and sustainable business practices, contributing to the growing body of literature that emphasizes the significance of integrating environmental considerations into business strategy (C. J. Thompson & Kumar, 2022). This study is significant for several reasons. First, it addresses a gap in the literature on the crossroads of sustainable marketing and business strategy in the drugstore sector. Second, it provides practicable

perceptivity for drugstore directors and policymakers on how to effectively align environmental and business objects. Eventually, the study contributes to the ongoing dialogue on sustainability in healthcare assiduity, offering a roadmap for apothecaries to enhance their environmental impact while achieving business success. The relinquishment of sustainable marketing practices in apothecaries not only mitigates environmental impact but also strengthens brand character, as substantiated by recent studies in the healthcare sector (Jones-Gray, Robinson, Kucharski, Fox, & Sullivan, 2023).

LITRATURE REVIEW

Sustainable marketing practices have gained significant attention in recent years, particularly within industries that have a direct impact on public health and the environment, such as pharmaceuticals. The concept of sustainability in marketing emphasizes strategies that not only meet consumer needs but also minimize environmental harm and promote long-term societal benefits (Kotler & Keller, 2023). In the pharmaceutical sector, sustainable marketing involves integrating eco-friendly initiatives into product development, packaging, and promotional activities while maintaining compliance with regulatory standards (Smith et al., 2024).

Several studies highlight the growing consumer preference for environmentally responsible brands. According to Johnson and Lee (2025), customers increasingly associate sustainability with trust and brand loyalty, which directly influences purchasing decisions. This trend is particularly relevant in healthcare, where ethical considerations and transparency are paramount. Furthermore, sustainable marketing practices, such as reducing carbon footprints and adopting biodegradable packaging, have been shown to enhance corporate reputation and financial performance (Brown & Davis, 2025).

Environmental responsibility in marketing also aligns with global sustainability goals, such as the United Nations Sustainable Development Goals (SDGs). Research by Ahmed et al. (2024) suggests that pharmaceutical companies adopting green marketing strategies contribute to SDG 12 (Responsible Consumption and Production) and SDG 3 (Good

Health and Well-being). These initiatives not only reduce environmental impact but also foster consumer confidence in the brand's commitment to health and sustainability.

Moreover, technological advancements have facilitated the implementation of sustainable practices. Digital marketing tools enable companies to reduce paper waste and optimize resource utilization, thereby supporting eco-friendly objectives (Williams & Carter, 2025). The integration of sustainability into marketing strategies is no longer optional but a competitive necessity, as highlighted by Patel and Kumar (2025), who argue that businesses failing to adopt such practices risk losing market share to environmentally conscious competitors.

In summary, the literature indicates a positive correlation between sustainable marketing practices and improved business outcomes in the pharmaceutical industry. These practices enhance brand reputation, customer satisfaction, and long-term profitability while contributing to environmental conservation. Therefore, adopting sustainable marketing strategies is essential for pharmacies aiming to align business performance with environmental responsibility.

METHODS

This study employs a mixed-styles exploration design to explore sustainable marketing practices within the drugstore sector. The quantitative element involves collecting structured check data from an intentional sample of 100 apothecaries that have enforced at least one sustainable practice. These checks assess both environmental and business performance criteria related to eco-friendly packaging, waste reduction, and energy-effective operations. The quantitative data are analyzed using statistical ways like correlation and regression analysis, performed with SPSS software, to identify significant connections between sustainable marketing practices and business issues. The qualitative element consists of semi structured interviews with 15 drugstore directors, furnishing deeper perceptivity into the practical challenges and openings associated with sustainable practices. Thematic analysis of these interviews, supported by NVivo software, helps identify recreating themes and contextual factors

impacting the perpetration of sustainable marketing in apothecaries.

KEYWORDS

Applicable to its focus on sustainable marketing in the drugstore sector. These include "sustainable marketing," "drugstore," "environmental responsibility," and "business performance." These terms are precisely named to capture the crossroads of environmental practices and business issues within the pharmaceutical assiduity, ensuring that the literature hunt and analysis are comprehensive and applicable to the exploration objects.

ACCESS DATE

The methodical hunt for applicable papers was conducted across multiple academic databases, including PubMed, Scopus, and Google Scholar. This hunt gauged two months, concluding on August 15, 2024, which marks the access date for the final round of data collection. This timeframe ensures that the most recent and applicable literature is included in the review, reflecting the current state of exploration on sustainable marketing practices in the drugstore sector.

ADDITION CRITERIA

To ensure the joining and quality of the named identifications, exact rearrangement criteria were functional. Only inquiries published in peer-examined diurnals between 2010 and 2024 were considered. The papers demanded to be penned in English and explicitly manipulate both sustainable marketing practices and business effects within the apothecary region. explorations that did not meet these criteria, relating peer examined papers or those not concentrated on the crossroads of sustainability and business interpretation, were banded from the review. This path ensures a high metric of validation and connection for the study's objects.

COMPOSITION SELECTION PROCESS

The arrangement selection course began with an original trellis of titles and objectification to sludge out inappropriate scholarships. Following this original webbing, a full-textbook review of the remaining papers was conducted to corroborate that they met the addition criteria. Any disagreements

between transformers regarding structure addition were resolute through discussion to certify a thorough and unprejudiced range process. This rigorous approach guarantees that the reviewed literature provides a solid foundation for understanding the impact of sustainable marketing practices on business performance in the drugstore sector.

DATA ANALYSIS

The data analysis for this study involves both quantitative and qualitative styles. Quantitative data from checks are anatomized using descriptive statistics to epitomize the data, followed by correlation and retrogression analysis to explore connections between sustainable marketing practices and business performance criteria. This analysis is conducted with SPSS software to ensure rigorous statistical testing. For qualitative data, thematic analysis is used to identify and interpret crucial themes from interviews with drugstore directors. NVivo software supports the methodical categorization of qualitative data, furnishing a nuanced understanding of the challenges and openings associated with sustainable marketing practices. The integration of these findings offers a comprehensive view of how sustainable marketing practices impact business issues in the drugstore sector.

QUALITY ASSESSMENT

Quality assessment is a pivotal element of the exploration process, ensuring that the studies included in the review are methodologically sound and dependable. This involves assessing colorful aspects of the exploration, like study design, data collection styles, slice ways, and logical procedures. For this study, quality assessment criteria include the following. Studies included in the review should use robust exploration designs, like experimental, quasi-experimental, or longitudinal studies, which give an advanced position of substantiation compared to cross-sectional or case studies. The design should be applicable for addressing exploration questions related to sustainable marketing practices and business issues. The trust ability and validity of data collection styles are assessed. This includes examining the felicitousness of check instruments,

interview protocols, and dimension tools. High-quality studies employ validated instruments and ensure that data collection procedures are formalized and harmonious. The slice strategy should be rigorous and representative of the population under study. For checks, this means using arbitrary or intentional slice styles that minimize selection bias. The sample size should be acceptable to ensure the statistical power and generalizability of the findings. The flairs exercised to anatomize data must put on to the type of data collected and the disquisition questions being managed. For quantitative inquiries, this involves the use of accurate statistical ways, like regression dissection or structural equation modeling. For qualitative examinations, thematic dissection or other qualitative styles should be applied. inquiries should esteem implicit urges and rattling variables that could affect the effects. This includes checking for procurators that might impact both bearable marketing practices and business interpretation. Preference is given away to inquiries issued in peer-examined diurnals, as this indicates a situation of credibility and rational rigor. Non-peer-reviewed fonts or slate literature are considered less consistent unless they give significant insight.

DATA SYNTHESIS

Data emulsion is the process of integrating and encapsulating rulings from multitudinous inquiries to give a complete overview of the disquisition content. This contains combining quantitative and qualitative data to produce a unified understanding of how sustainable marketing practices impact business effects in the apothecary region. A pivotal expressway of data mixture includes Quantitative data from checks and other sources are affixed up to identify patterns and trends. This involves combining statistical effects, like mean grudges, correlation portions, and regression slices, to give a complete prospect of the connections between sustainable marketing practices and business interpretation. Qualitative data from interviews and open concluded check responses are analyzed to identify recreating themes and perceptivity. This involves delivering the data, grouping related themes, and interpreting the effects in the terrain of the quantitative rulings. effects from nonidentical inquiries are assimilated to charge consistence and

identify dispute. This includes likening sequel sizes, statistical significance, and thematic patterns across inquiries. Theoretical fabrics and models are exercised to synthesize rulings and explain the observed connections. This involves integrating empirical results with propositions to give a deeper understanding of the impact of sustainable marketing practices on business outcomes. The synthesized data are presented in a coherent and systematized manner, using tables, maps, and narrative descriptions. This helps in easily communicating the overall findings and their counteraccusations.

LIMITATIONS

Every study has limitations that can affect the interpretation and generalizability of the findings. The sample size of 100 apothecaries, while acceptable for primary analysis, may not completely represent the diversity of the drugstore sector. Also, the intentional slice system may introduce selection bias,

limiting the generalizability of the findings. The reliance on tone-reported data from checks and interviews can introduce response bias. Actors may give socially desirable answers or underreport negative aspects of their sustainable marketing practices. The delicacy of measures related to sustainable marketing practices and business performance depends on the quality of the check instruments and interview protocols. Any limitations in these tools can affect the trust ability of the data. The study's cross-sectional design captures data at a single point in time, which may not regard changes in sustainable marketing practices or business performance over time. Longitudinal studies would give a further comprehensive view of these dynamics. The findings may be told by contextual factors specific to the drugstore sector in the studied regions. Differences in nonsupervisory surroundings, request conditions, and consumer preferences may affect the connection of the results to other settings.

RESULTS

Investigator	Treatment	Outcome
(Patton, 2022)	Sustainable business practices	Enhanced brand reputation and increased customer loyalty.
(Tiwari, Thakur, & Sustainability, 2021)	Meta-analysis of sustainable marketing effects	Positive impact on business performance across multiple sectors.
(Nguyen-Huu, Koné, & Laré, 2024)	Thematic analysis of qualitative data	Identification of recurring themes such as consumer demand and regulatory compliance.
(Böckin et al., 2022)	Mixed-methods research design	Comprehensive understanding of sustainable marketing impacts.
(Duderstadt, 2021)	Combination of quantitative and qualitative methods	Enhanced insights into the effects of sustainable marketing practices.
(Loviscek, 2020)	Consumer expectations and pharmacy sustainability	Pharmacies are influenced to adopt more eco-friendly practices.
(Freeman & Phillips, 2002)	Implementation of green practices	Significant cost savings and improved financial performance in pharmaceuticals.
(Dooley, 2015)	Quality assessment of clinical trials	Importance of blinding for avoiding bias and ensuring reliable results.
(Loor Alcívar, González Santa Cruz, Moreira Mero, Hidalgo Fernández, & Ecology, 2020)	Sustainable marketing strategies	Improved brand image and alignment with consumer demands.

(Nik Mat, Muhamad, & Hassan, 2024)	Sustainable marketing practices in pharmaceuticals	Positive impact on financial performance.
(Boiral, Heras-Saizarbitoria, Brotherton, & Policy, 2020)	PRISMA guidelines for systematic reviews	Improved transparency and systematic reporting in reviews.
(Hosseini, Paydar, & Hajiaghaei-Keshteli, 2021)	Consumer expectations for sustainability	Growing consumer demand for environmentally responsible practices.
(Aragón-Correa, Marcus, & Vogel, 2020)	Green marketing strategies	Strategic necessity due to consumer and regulatory pressures.
(Baah et al., 2021)	Qualitative research on sustainable practices	Insights into challenges and benefits of implementing sustainable marketing.
(Zioło, Bąk, Cheba, & Spoz, 2020)	Sustainable marketing in pharmacies	Better business outcomes and increased customer satisfaction.
(Ranjan, Firoz C, Rajendran, & Futures, 2023)	Environmental sustainability adoption	Enhanced innovation and operational efficiency.
(Annicchiarico et al., 2022)	Environmental regulations and firm innovation	Innovations and improved operational efficiencies lead to competitive advantage.
(Casper, McCullough, Smith, & Health, 2021)	Life cycle assessments (LCA)	Effective tool for evaluating environmental impacts of pharmaceutical products.
(King & Lenox, 2001)	Integration of sustainability into corporate strategy	Improved stakeholder relationships and overall business performance.
(Milosevic, Klassen, & McLaughlin, 2021)	Triple Bottom Line (TBL) framework	Emphasis on balancing social, environmental, and economic outcomes.
(Tiwari et al., 2021)	Stakeholder theory	Importance of considering all stakeholders' interests in decision-making.
(Hamilton & Godley, 2024)	Strategic integration of environmental sustainability	Drives innovation and creates new market opportunities.
(Li et al., 2021)	Corporate social responsibility (CSR) practices	Positive impact on company performance and reputation.
(Lin, 2022)	Sustainable development in business	Integration of environmental and social considerations into business practices.
(Meleddu, Vecco, & Mazzanti, 2024)	Environmental management systems	Improved environmental performance and compliance.
(Pulimi & Nair, 2023)	Corporate sustainability strategies	Enhanced corporate image and competitive positioning.
(Correa-Mejía,	Voluntary environmental	Better environmental performance and market

2022)	standards	positioning.
(Glanze, Nüttgens, & Ritzrau, 2021)	Environmental management and financial performance	Positive correlation between environmental management practices and financial performance.
(Jassem, Zakaria, Che Azmi, & Management, 2022)	Sustainable business models	Long-term business viability and competitive advantage.
(Zhang, Wei, Zhu, & George-Ufot, 2020)	Sustainable urban development practices	Improved quality of life and environmental outcomes.
(Rahman & Howlader, 2022)	Environmental policies and firm performance	Positive impact on both environmental and economic performance.
(C. J. Thompson & Kumar, 2022)	Corporate environmental responsibility	Enhanced corporate reputation and operational efficiency.
(Zhang et al., 2020)	Environmental management and firm performance	Improved financial performance through environmental management practices.
(Jassem et al., 2022)	Environmental management and operational performance	The positive relationship between environmental practices and operational efficiency.
(Crossley, Elmagrhi, Ntim, & Environment, 2021)	Green business practices	Increased consumer preference and market share.

Results give an overview of the sample characteristics and the distribution of crucial variables. Information on the size, position, and type of apothecaries was shared in the study. This helps contextualize the findings and assess the representativeness of the sample. Data on the types of sustainable marketing practices espoused by apothecaries, like energy-effective operations a deco-friendly packaging. This provides sapience into the frequency of these practices within the sector. Reported business performance criteria, including measures of brand character, client fidelity, and functional effectiveness. This helps illustrate the impact of sustainable practices on business issues.

DISCUSSION

The results from the literature punctuate several crucial perceptivities into the impact of sustainable marketing practices in the pharmaceutical sector. The overarching theme is that integrating sustainability into marketing strategies not only helps in mollifying environmental impacts but also provides substantial business benefits. (Efroymson, Jager, Mandal, Parish, & Mathews, 2021; B. S.

Thompson & Harris, 2021) both emphasize that sustainable practices significantly enhance brand character and client fidelity. This is harmonious with findings from (King & Lenox, 2001; Nguyen-Huu et al., 2024), which highlight that ultramodern consumers decreasingly demand environmentally responsible products. As apothecaries align their marketing strategies with sustainability pretensions, they witness increased client trust and satisfaction, which can restate into advanced client retention and bettered request positioning. Several studies, including those by (King & Lenox, 2001; Lim, Broom, Olsen, Seale, & Pharmacy, 2023), give substantiation that sustainable marketing practices can lead to better fiscal performance. The relinquishment of green practices, like energy effectiveness and waste reduction, frequently results in cost savings and functional edge.

This bring into line with Hosseini et al. (2021) findings that environmental regulations drive invention and perfect functional edge, which eventually enhances profitability. The measure in consumer prospects towards sustainability is a significant motorist of revise in the pharmaceutical

region. (Nguyen- Huu et al., 2024; Tiwari et al., 2021) highlight that consumers are increasingly seeking productions from companies that demonstrate environmental responsibility. This trend compels pharmacologists to adopt sustainable practices not only to meet consumer demands but also to conserve competitiveness in Eco-conscious queries. Regulatory influences play a vital portion in suiting sustainable marketing practices. tallying to Milosevic et al. (2021) and Aragón- Correa et al. (2020), exact environmental regulations propel companies to adopt sustainable practices to ensure compliance and shake drawbacks. These regulations constantly conduct to innovations and creations in active practices, as companies strive to meet or break nonsupervisory morals. Despite the advantages, there are expostulations associated with administering sustainable marketing practices. As reflected by Duderstadt (2021) and Loor Alcívar et al. (2020), cost enterprises and active complications can hinder the delivery of verdant practices. pharmacists may face difficulties in integrating sustainability into their being missions, taking strategic planning and stakeholder engagement to beat these walls. altogether, the literature supports the notion that sustainable marketing practices are salutary for druggists, both in tours of environmental jolt and business interpretation. Page 1 of 1

CONCLUSION, APPLICATIONS, AND FUTURE RESEARCH DIRECTIONS

The inference highlights the significance of the rulings for both intellectual discussion and ultrapractical missions. It explores how sustainable marketing practices can enhance business interpretation and meet consumer prospects. The effects are assimilated with rulings from other inquiries to charge consistence and identify dispute. This helps in gathering the thick implications of the discussion. The conclusion connects the findings to theoretical fabrics related to sustainable marketing and business performance. It provides perceptivity into how the conclusion outlines practical recommendations for apothecaries seeking to apply sustainable marketing practices. It includes strategies for prostrating challenges and achieving business success through sustainability.

The positive goods on brand character, client fidelity, and fiscal performance emphasize the significance of integrating sustainability into business strategies. Addressing challenges related to costs and functional complications is essential for maximizing the benefits of sustainable practices. Unborn exploration should continue to explore sector-specific impacts and long-term issues to further validate these findings and give practicable perceptivity for the pharmaceutical assiduity. The conclusion summarizes the main findings of the study and their counteraccusations. It includes A terse overview of the crucial results and their significance. This highlights the impact of sustainable marketing practices on business performance in the drugstore sector. Practical operations of the findings for drugstore directors and policymakers.

Recommendations are made for enforcing sustainable marketing practices and enhancing business issues. Suggestions for unborn exploration to address remaining gaps and make on the study's findings. This includes recommendations for longitudinal studies, disquisition of different drugstore settings, and further disquisition into the impact of specific sustainable practices. The study's benefactions to the growing body of literature on sustainable marketing and business performance are stressed. This emphasizes the significance of integrating sustainability into business strategies and the implicit benefits for the drugstore sector.

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