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A Study On Sustainable Marketing Practices Of Selected Companies In Indian Chemical Industry

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Abstract:

This study investigates the ongoing use of caustic soda in soap and detergent production, examining its benefits and drawbacks amidst growing environmental concerns. Caustic soda's effectiveness in converting fats and oils into soap and detergent powder, as well as its role in cleaning agents and pH adjustment, makes it a valuable ingredient. However, its production and utilization raise significant environmental concerns, prompting the industry to shift towards sustainability. This research aims to evaluate the efficacy of caustic soda against its environmental impact, exploring safer, more eco-friendly alternatives that balance functional performance with environmental responsibility. By revaluating the use of caustic soda, the industry can mitigate stakeholder concerns, adhere to legal obligations, and ensure long-term survival, ultimately aligning with sustainable marketing principles and contributing to a more environmentally conscious future. This study's findings will inform detergent manufacturers' strategies, policy decisions, and sustainable practices, addressing the critical need for environmentally responsible production processes in the chemical industry.

Keywords: Caustic soda, detergent production, environmental concern, Sustainability marketing, eco-friendly alternatives.

INTRODUCTION

The chemical industry's significant contributions to contemporary industrial activity have propelled innovations in various sectors, including consumer goods, healthcare, and agriculture. However, the industry's high-resource operations and substantial environmental footprint have sparked intense scrutiny, underscoring the need for sustainable marketing strategies that balance social responsibility, environmental care, and financial success. As chemical companies navigate this complex landscape, they must prioritize stakeholder concerns, adhere to stringent regulations, and ensure long-term viability. A critical aspect of this endeavour involves assessing raw materials used in popular products, such as sodium hydroxide (caustic soda), a fundamental ingredient in soap and detergent production. Caustic soda's efficacy in dissolving fats and oils has led to widespread adoption, but its manufacture and disposal raise significant concerns regarding health risks and environmental contamination. This study undertakes a comprehensive evaluation of caustic soda's sustainability implications, examining whether its ongoing use aligns with sustainable marketing strategies or necessitates revaluation in favour of safer, more environmentally friendly substitutes. By investigating the environmental and health impacts of caustic soda, this research aims to inform detergent manufacturers' sustainable practices, policy decisions, and strategic marketing plans, contributing to the

development of eco-friendly production processes and mitigating stakeholder concerns. This study's findings will provide valuable insights for chemical companies seeking to balance functional performance with environmental responsibility, ultimately ensuring long-term survival and contributing to a more sustainable future.

Need for the study:

This study focuses on explore and evaluate the sustainable marketing practices within the chemical industry, specifically focusing on caustic soda producers. It seeks to determine whether the benefits of using caustic soda in detergent production outweigh its potential drawbacks, considering factors such as environmental pollution, energy consumption, waste management, and corporate social responsibility.

Scope of the study:

The scope of the study includes an in-depth examination of sustainable marketing practices in the chemical business, with a specific emphasis on caustic soda's involvement in the detergent sector. This study will focuses on the environmental impact, economic feasibility, and social outcome of employing caustic soda in detergent production. It will involve a critical analysis of present caustic soda production processes and how they correspond with sustainability ideals. The study will also focuses on alternative materials and ways for reducing the environmental impact of detergent manufacturing. By evaluating the benefits and drawbacks of caustic soda in this context, the study hopes to provide thorough insight into whether its use contributes favourably or negatively to the detergent industry's overall sustainability goals.

Objectives of the study:

- Evaluate the Environmental Impact
- Analyze Sustainability Practices
- Compare Alternatives

Literature Review:

Belz & Peattie (2009) present a comprehensive framework for sustainability marketing, emphasizing the integration of ecological, social, and economic considerations into marketing strategies. Their book explores various industries, including the chemical sector, and stresses the importance of balancing profitability with environmental and social responsibility. Similarly, McDonagh & Prothero (2014) review the evolution of sustainability marketing research, identifying key trends and forecasting future directions. They highlight the growing necessity of embedding sustainability within marketing strategies across different sectors. Ottman (2011), in *"The New Rules of Green Marketing,"* focuses on sustainable branding, offering actionable tools and strategies for companies seeking to implement green marketing practices. These works underline the critical shift toward sustainability in marketing, reinforcing the need for companies, including those in the chemical industry, to adopt eco-friendly production methods while addressing stakeholder concerns. Furthermore, gaps in literature point to limited studies on specific chemical processes, such as caustic soda production, underscoring the need for more research on sustainable practices in detergent manufacturing.

Kumar & Christodoulopoulou (2014) explore the integration of sustainability into branding strategies, emphasizing how companies can build sustainable brands by aligning their operations with environmental and social values. They note the growing significance of sustainability in the chemical industry, where companies are increasingly adopting eco-friendly practices to meet market demands and regulatory standards. Charter & Tischner (2001), in *Sustainable Solutions: Developing Products and Services for the Future*, discuss the development of sustainable products and services, including in the chemical industry. The book highlights the importance of incorporating sustainability into product design and marketing, ensuring

long-term viability and minimizing environmental impact. Both sources underscore the chemical sector's critical role in advancing sustainability through innovation in branding and product development.

Research Methodology:

This study examines the sustainable marketing practices within the chemical industry, with a focus on caustic soda (sodium hydroxide) used in detergent manufacturing. While caustic soda is essential for saponifying fats and oils, concerns around its environmental and health impacts persist. The research employs a descriptive design using both qualitative and quantitative data collected via a structured questionnaire targeting 32 individuals involved in detergent production across seven states in India. The sample, drawn from 16 manufacturing companies, employs purposive sampling to ensure relevant insights. Data analysis includes descriptive statistics and hypothesis testing using t-tests, supported by software like Excel to explore sustainability, environmental impact, cost-effectiveness, and corporate responsibility in caustic soda usage.

Findings:

- Environmental Impact of Caustic Soda: Companies vary in their annual use of caustic soda, ranging from 300 to 800 tons. While most implement safety and handling procedures, some explore recycling methods such as membrane filtration and electrodialysis to reduce environmental impact. Challenges include high costs and limited availability of sustainable materials.
- Sustainability Practices: Many companies focus on waste reduction, recycling, and energy-efficient transportation, with some forming dedicated sustainability teams. Renewable energy usage is emerging as a priority but is not yet widely adopted.
- Alternatives to Caustic Soda: Few companies are exploring alternatives like magnesium hydroxide and membrane technology, although most rely on safe handling and storage practices rather than replacing caustic soda altogether.

Conclusion:

- Commitment to Sustainability: The chemical industry demonstrates a growing commitment to sustainability, with particular focus on waste reduction and recycling programs. However, the adoption of more advanced sustainable practices, such as renewable energy use and green manufacturing processes, varies across companies, with many still in the early stages of implementation.
- Use and Sourcing of Caustic Soda: Most companies involved in detergent production rely heavily on caustic soda, with annual usage ranging from 300 to 800 tons. Although many companies express interest in sourcing caustic soda through more sustainable means, there remains a significant gap in the exploration and adoption of alternatives to caustic soda, such as magnesium hydroxide and membrane technologies.
- Marketing and Promotion of Sustainability: In line with the digital transformation in marketing, online advertising and social media platforms are the dominant channels used by companies to promote their sustainability efforts. This reflects a broader shift towards digital engagement and the increasing importance of transparent, eco-friendly practices in building brand reputation within the chemical industry.

Reference:

Gupta, S., Dangayach, G.S., Singh, A.K., Meena, M.L. and Rao, P.N. (2018), "Implementation of sustainable manufacturing practices in Indian manufacturing companies", *Benchmarking: An International Journal*, Vol. 25 No. 7, pp. 2441-2459. https://doi.org/10.1108/BIJ-12-2016-0186

Kumar, P. (2015), "Green marketing innovations in small Indian firms", *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 11 No. 3, pp. 176-190. https://doi.org/10.1108/WJEMSD-01-2015-0003

Narula, S.A. and Upadhyay, K.M. (2011), "Product strategy vis-à-vis environment: are strategies of pesticide manufacturers in India sustainable?", *Social Responsibility Journal*, Vol. 7 No. 2, pp. 282-294. https://doi.org/10.1108/17471111111141530

Christopher P. Nicholas. Viral Infections and the Development of Disinfection: 100 Years of Progress at I&ECR. *Industrial & Engineering Chemistry Research* 2020, *59* (14), 6345-6346. https://doi.org/10.1021/acs.iecr.0c01294