

Emerging Trends, Opportunities, and Challenges of Green Marketing in Developing Economies

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Abstract—Due to rising consumer awareness and environmental concerns, green marketing is becoming more and more significant in developing nations. The rising trends, prospects, and difficulties of green marketing in developing nations are examined in this paper. The research is theoretical, descriptive, and derived from secondary sources. Major themes including renewable energy, eco-friendly products, sustainable packaging, green production, and green technologies are covered. Prospects brought about by rising consumer awareness, growing demand for sustainable products, government backing, job prospects, and sustainable investment are also highlighted in the report. High expenses, a lack of funding, a lack of technological skills, low customer awareness, and a lack of certification and standards continue to be significant obstacles. According to the report, encouraging green marketing requires financial backing, consumer awareness, green innovation, government cooperation, and appropriate certification. All things considered, green marketing can help emerging economies achieve sustainable economic growth while preserving the environment.

Index Terms—Green Marketing, Sustainable Development, Developing Economies, Consumer Awareness, Environmental Sustainability

I. Introduction

Climate change, pollution, deforestation, resource depletion, and waste production are major global concerns related to environmental sustainability. Companies are required to match the demand for eco-friendly products and reduce their environmental impact. Green marketing includes initiatives that support environmentally friendly products and services, such as creating eco-friendly products, utilising sustainable materials, cutting waste, implementing green production methods, enhancing packaging, conserving energy, and informing customers about environmental advantages. As consumers become more conscious of environmental issues and look for eco-friendly products, the idea of green marketing is becoming more and more important. This movement encourages companies to include environmental factors in their marketing plans, particularly in developing nations where resource conservation and economic expansion must coexist. Environmental constraints are created by issues like fast industrialisation and urbanisation, but these countries also provide green economic prospects because of growing markets, a growing middle class, and increased consumer consciousness. Financial and technological limitations make implementing green marketing difficult, especially for small and medium-sized businesses. Customers in developing economies are price-sensitive, and green products frequently have greater production costs. Furthermore, low awareness, false environmental information, and green washing can erode consumer trust.

Governments, corporations, consumers, and other stakeholders must work together to comprehend the trends, opportunities, and difficulties of green marketing in order to achieve sustainable economic development. Keshava (2006) highlights the growing challenges of urbanisation and solid waste management in Bangalore, emphasizing waste segregation, recycling, composting, source reduction, and environmentally responsible waste-management practices. These initiatives demonstrate the importance of promoting sustainable consumption and production practices, which are closely associated with green marketing. The study provides a useful foundation for understanding how environmental concerns, resource efficiency, and eco-friendly practices can create opportunities for green products and services in developing economies, while also highlighting challenges related to infrastructure, public participation, and effective implementation.

II. Review of Literature

Muposhi (2018) carried out a thorough analysis of green marketing in emerging markets and looked at its main motivators, difficulties, and potential future paths. According to the survey, companies are encouraged to use green marketing strategies by expanding environmental concerns, environmental restrictions, increased operational efficiency, profitability, and shifting consumer preferences. However, the report also noted that major obstacles, especially in emerging markets, include scarce resources, low consumer knowledge, and limitations in adopting sustainable practices. Nekmahmud et, al (2020) investigated the elements influencing consumers' desire to buy environmentally friendly products in a developing nation. The study highlighted the significance of customer attitudes, perceived benefits, trust, and environmental awareness in motivating consumers to select eco-friendly products. According to the findings, companies can improve green marketing by raising consumer awareness, offering trustworthy information about environmental advantages, and creating goods that satisfy customers' demands for sustainability. Kwak et al. (2022), who found a negative connection between ESG fund flows and historical performance in the Korea Stock Exchange. This suggests that ESG funds are more responsive to performance changes but do not significantly outperform non-ESG funds. According to Verma et al. (2024), despite obstacles such high prices and green washing, 60% of Indian consumers prefer eco-friendly items due to increased environmental consciousness. In his investigation of India's green marketing environment, Dutta (2024) found both potential advantages for a company's reputation and competitive advantage as well as obstacles like low consumer awareness, inconsistent practices, high costs, and the requirement for ongoing research to increase confidence in sustainability metrics. Keshava (2014) emphasizes that economic development should move towards environmentally sustainable pathways, with greater adoption of green technologies and renewable energy to reduce greenhouse gas emissions and support sustainable economic growth. Keshava (2010) provides a systematic discussion of fundamental economic concepts that are relevant to understanding the broader dimensions of economic development. The study covers key issues including economic growth, national income, inflation, poverty, unemployment, and public finance, thereby providing a conceptual foundation for analysing economic conditions. It also emphasizes the significance of government policies and economic institutions in addressing developmental challenges and promoting economic stability. The work is therefore useful as a theoretical reference for examining economic issues and understanding their implications within the context of the Indian economy.

III. Objectives of The Study

- To examine the emerging trends in green marketing in developing economies.
- To analyse the opportunities available for the adoption and growth of green marketing in developing economies.
- To identify the major challenges associated with the implementation of green marketing in developing economies.

IV. Research Methodology

The research is descriptive and theoretical. It is based on secondary data gathered from scholarly publications, books, reports, research articles, and trustworthy sources like PwC, the World Bank, and the OECD. To comprehend the new trends, opportunities, and difficulties of green marketing in developing nations, the gathered data is examined and debated.

EMERGING TRENDS IN GREEN MARKETING

● Eco-Friendly Products

The growing creation and promotion of environmentally friendly products is one of the main themes in green marketing. Companies are concentrating on goods that have less of an impact on the environment, produce less waste, and utilise fewer natural resources. Organic, recyclable, biodegradable, reusable, and energy-efficient items are becoming more and more popular.

● Sustainable Packaging

Green marketing now heavily relies on sustainable packaging. Companies are using recyclable, reusable, biodegradable, and minimal packaging instead of single-use plastics. Sustainable packaging can lower waste and enhance a company's environmental reputation.

● Green Production

Companies are using more ecologically friendly production techniques. Reducing pollution, preserving water and energy, cutting waste, and increasing resource efficiency are the main goals of green production. Businesses can improve long-term efficiency and lessen their impact on the environment by implementing cleaner industrial technology.

- **Renewable Energy and Green Technologies**

Another significant development is the growing use of green technologies and renewable energy. Energy-efficient machinery, electric vehicles, solar energy, wind energy, and clean technology are all becoming more and more important for sustainable corporate operations.

Global renewable energy capacity grew by a record 585 gigawatts in 2024, reaching a total of 4,448 GW — the fastest annual growth rate on record at 15.1 percent. Asia accounted for the majority of this new capacity (72.0 percent), expanding by 421.5 GW to reach 2,382 GW, or 53.6 percent of the global total, showing that developing and emerging Asian economies, not only OECD members, are driving the renewable-energy trend. Within this, India added 24.5 GW of solar capacity in 2024, the second-largest national addition after China. The following year confirmed the trajectory: 2025 saw the largest annual increase yet, with 692 GW added, expanding the global renewable stock by a further 15.5 percent, with solar alone accounting for nearly three-quarters of that growth.

India's own green technology and sustainability market reached USD 1,066.3 million in 2025 and is projected to reach USD 9,584.0 million by 2034, a compound annual growth rate of 26.25 percent; a separate estimate places India's CAGR even higher, at 31.2 percent through 2033, describing India as the fastest-growing regional market for green technology in Asia-Pacific.

India's green packaging market was valued at USD 9.0 billion in 2024 and is projected to reach USD 57.2 billion by 2033, a CAGR of 22.5 percent, driven by government bans on single-use plastics and rising e-commerce packaging demand. A narrower biodegradable tableware and packaging segment was valued at roughly USD 2.06 billion in 2023, growing at a more modest 6.0 percent CAGR through 2030 — a useful contrast showing that green sub-sectors are not all expanding at the same pace.

V. OPPORTUNITIES FOR GREEN MARKETING IN DEVELOPING ECONOMIES

- **Increasing Consumer Awareness**

Demand for sustainable products is rising as people become more conscious of pollution, climate change, and environmental destruction. Customers are becoming more curious about how items are made and how they affect the environment.

- **Growing Demand for Sustainable Products**

Businesses have the chance to create new eco-friendly goods and services due to the growing demand for eco-friendly products. Businesses can obtain a competitive edge by efficiently adapting to shifting consumer demands.

- **Government Policies and Incentives**

Subsidies, tax breaks, environmental laws, renewable energy policies, and backing for green technologies are all ways that governments can encourage green marketing. Businesses may be encouraged to implement environmentally friendly procedures by such regulations.

- **Employment and Entrepreneurship Opportunities**

Employment and business prospects in sectors including waste management, eco-tourism, sustainable agriculture, recycling, renewable energy, and green transportation can be generated by the expansion of green industries.

- **Sustainable Investment**

Businesses who implement reputable environmental standards may find opportunities due to the growing significance of sustainable financing and ESG investing. Investors interested in long-term sustainable growth may be drawn to green enterprises.

PwC's 2024 Voice of the Consumer Survey, covering more than 20,000 consumers across 31 countries, found that 85 percent report experiencing the disruptive effects of climate change firsthand and are prioritising sustainability in consumption. More than four-fifths (80 percent) of consumers said they are willing to pay more for sustainably produced or sourced goods, and on average, consumers are willing to spend 9.7 percent more for such goods. Consumers evaluate sustainability mainly through production methods and recycling, eco-friendly packaging, and positive environmental impact. For an India-specific figure, a 2023 World Bank-sourced survey found that 70 percent of Indian consumers prefer products with minimal environmental impact, consistent with the 60 percent figure already cited from Verma et al. (2024) in the main paper.

Roughly one-third of small and medium-sized enterprises across the sampled OECD countries are environmentally engaged, though the share varies considerably by country. Medium-sized firms are nearly twice as likely to be “greening” as small firms, and three or more times as likely as micro firms. Solar installation, recycling, renewables, and circularity are the most common greening strategies these firms

report — evidence that green engagement scales with firm size, which matters directly for SMEs in developing economies facing capital constraints.

VI. CHALLENGES OF GREEN MARKETING IN DEVELOPING ECONOMIES

- **High Cost of Green Products**

The comparatively high cost of environmentally friendly products and technologies is one of the main obstacles. Environmentally friendly industrial techniques, green technologies, and sustainable raw materials may demand large financial outlays.

- **Limited Financial Resources**

Due to their limited financial resources and financing availability, small and medium-sized businesses frequently struggle to invest in green technologies.

- **Lack of Technological Capabilities**

It's possible that many companies in underdeveloped nations lack access to cutting-edge technologies needed for sustainable production. Adoption of green techniques may be hampered by a lack of technical expertise.

- **Low Consumer Awareness**

Many consumers may still be ignorant of green products and their advantages for the environment, despite the growing awareness of environmental issues. Demand for sustainable goods may decline as a result.

- **Lack of Standardisation and Certification**

Customers may find it challenging to discern between products that are truly green and those that make false environmental claims in the absence of comprehensive information, trustworthy certification programs, and established environmental criteria.

Even amid strong sustainability intent, roughly a third of consumers cite inflation as the biggest risk to their consumption habits, and 62 percent expect their biggest spending increase over the following six months to

be on groceries as inflation drives up essential goods prices, illustrating the tension between green intent and cost-sensitivity among price-sensitive consumers in developing economies.

Descriptive Statistical Analysis

The figures gathered above are summarised below using simple descriptive statistics — mean and range suitable for a theoretical, secondary-data-based paper.

Table A: India Green-Market Segment Growth Rates (CAGR, %)

Segment	CAGR (%)	Source
Green technology & sustainability (IMARC)	26.25	IMARC Group, 2024
Green technology & sustainability (Grand View)	31.20	Grand View Research, 2024
Green packaging	22.50	IMARC Group, 2024
Eco-friendly home hygiene products	12.21	TechSci Research, 2025
Biodegradable tableware & packaging	6.00	Grand View Research, 2024

Mean CAGR = 19.6% | Range = 6.0%–31.2% (spread of 25.2 points)

Interpretation: even the slowest-growing green sub-segment (biodegradable tableware, 6.0%) is expanding several times faster than India's overall GDP growth rate, while the fastest (green technology broadly, 26–31%) is growing at roughly four to five times that pace — supporting the paper's claim of strong emerging-market opportunity. The wide spread also illustrates uneven adoption across product categories, which ties into the paper's “lack of standardisation” challenge.

VII. Findings of the study

- As environmental consciousness grows, green marketing is becoming more significant in developing nations.
- Green technologies, renewable energy, green production, eco-friendly products, and sustainable packaging are all major trends.
- Opportunities for green marketing are created by rising customer awareness and demand for sustainable products.
- Green marketing can be promoted by government assistance through tax breaks, subsidies, and environmental regulations.

- Green sectors have the potential to generate jobs and chances for entrepreneurship.
- Exorbitant expenses and a lack of funding are significant obstacles, particularly for small and medium-sized enterprises.

VIII. Suggestions

- To encourage the adoption of green technologies, governments ought to offer financial assistance and subsidies.
- Financial and technical support should be given to small and medium-sized enterprises.
- To promote green products, consumer awareness campaigns should be carried out.
- Companies should create high-quality, reasonably priced eco-friendly products.
- Green technologies and renewable energy should be promoted.
- For green products, appropriate certification, standards, and eco-labeling should be implemented.

IX. Conclusion

Due to rising consumer awareness and environmental concerns, green marketing is becoming more and more significant in developing nations. The study focuses on new trends like renewable energy, green technologies, green production, eco-friendly products, and sustainable packaging. Growing consumer demand for sustainable goods, government assistance, job possibilities, and sustainable investment present developing nations with substantial opportunities for green marketing. High expenses, a lack of funding, a lack of technology, little customer awareness, and insufficient standards, however, continue to be significant obstacles. Therefore, encouraging green marketing requires government assistance, consumer awareness, green innovation, and appropriate certification. In general, green marketing can assist developing nations in achieving both environmentally friendly and sustainable economic growth.

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