

## A Study On Barriers And Opportunities For Ssi's In Adopting Green Marketing Practices In Trivandrum City

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### ABSTRACT

In this research, barriers and opportunities that Small-Scale Industries (SSIs) in Trivandrum City face when it comes to implementing environmentally friendly marketing strategies are investigated. The study finds critical barriers that prevent SSIs from fully adopting sustainable marketing activities. These problems include high initial costs, inadequate technology understanding, regulatory barriers, and resource limits. These challenges are identified via detailed analysis. The report shows considerable prospects, including government subsidies, increasing customer demand for environmentally friendly goods, long-term cost savings, and better company image. These opportunities are highlighted despite the fact that there are hurdles mentioned in the study. As a result of the positive association that exists between opportunities and barriers, it is possible that removing these obstacles might result in significant advantages being made available to SSIs. The results highlight the need of an integrated strategy that incorporates elements such as financial assistance, technical training, resource sharing, and lobbying for legislation in order to aid the transition to green marketing. There is the potential for small and medium-sized enterprises (SSIs) in Trivandrum City to achieve sustainable development, improve their competitive edge, and contribute to a greener economy if they take advantage of these possibilities and overcome the barriers they face.

**Keywords:** Barriers and Opportunities, Eco-friendly, Green Marketing Practices, Small-Scale Industries.

### INTRODUCTION

In recent years, the implementation of environmentally responsible marketing strategies has become an increasingly important factor for companies that want to make a positive contribution to the preservation of the environment while also improving their position in the market. It is important to note that Small-Scale Industries (SSIs) play a big position in the economic landscape of Trivandrum City. Furthermore, their engagement in green marketing has the potential to greatly influence the sustainable development of the area. Nonetheless, the switch to environmentally friendly marketing presents these smaller businesses with a number of obstacles to overcome. The purpose of this research is to investigate the challenges and possibilities that small and medium-sized enterprises (SSIs) in Trivandrum City encounter when it comes to implementing environmentally friendly marketing techniques.

Within the realm of marketing, the notion of green marketing refers to the promotion and acceptance of techniques and goods that are favourable to the environment. It encompasses a comprehensive strategy to decreasing environmental effect, engaging customers in sustainability, and developing long-term ecological stewardship, going beyond the simple act of complying with environmental legislation. Such an approach. Marketing that is environmentally conscious offers SSIs with a problem as well as an opportunity. On the one hand, companies are confronted with obstacles such as high starting expenses, a lack of technical know-how, regulatory constraints, and limited resources. On the other side, companies stand to gain advantages associated with government subsidies, an increasing demand from customers for environmentally friendly goods, the possibility of cost savings, and an improved reputation for their brand.

The purpose of this research is to give a complete analysis of these possibilities and obstacles, with the goal of providing insights into how small and medium-sized enterprises (SSIs) in Trivandrum City might traverse the many aspects of green marketing. In order to assist small and medium-sized enterprises (SSIs) in the process of formulating effective plans for sustainable development and competitiveness, the study attempts to identify the most significant challenges and possible advantages. This research will shed light on the essential elements that influence the adoption of green marketing strategies and give practical advice for small and medium-sized enterprises (SSIs) to use their particular strengths in the quest of sustainability. This will be accomplished via a mix of primary data gathering and secondary research.

## REVIEW OF LITERATURE

SMEs have a significant obstacle in the form of a lack of money when it comes to adopting environmentally friendly business practices, although smaller enterprises and urban firms are more conversant with these methods (Purwandani & Michaud, 2021). The most significant challenges that small and medium-sized enterprises (SMEs) have when attempting to implement environmentally friendly practices are referred to as "political obstacles," and the most effective way to overcome these challenges is to establish research methodologies that can offer green innovation. 2021; Chien et al., 2021). According to Majumdar and Sinha (2018), the most significant obstacles in green supply chain management for small and medium-sized enterprises (SMEs) in the Indian textile industry include a lack of support from regulatory authorities, support from consumers, excessive investment, limited economic returns, and a lack of incentive systems for suppliers.

The absence of research and development, the inability to achieve eco-design, and the absence of certification are three significant obstacles that small-scale enterprises must overcome in order to embrace environmentally friendly manufacturing processes. In the year 2020, Karuppiyah et al. One of the obstacles that small and medium-sized enterprises (SMEs) face when it comes to implementing circular economy practices is a lack of financial resources and technical capabilities. On the other hand, facilitators include legislative instruments and support for the recognition of green business models (Rizos et al., 2016). Since small and medium-sized enterprises (SMEs) lack the technical specialists, expertise, and financial resources necessary to implement sustainable business practices, this might have an effect on their performance (Aghelie, 2017).

Industry 4.0 adoption for sustainable production in micro, small, and medium firms faces a number of challenges, the most significant of which are technological advancement, the absence of legislative frameworks, the difficulty of gaining access to capital, and the lack of preparation of the workforce (Khanzode et al., 2021). According to Darko and Chan (2017), the adoption of green buildings is hampered by a number of factors, including a lack of knowledge, cost, incentives, interest and demand, as well as a lack of green building norms and regulations.

## OBJECTIVES OF THE STUDY

- To determine the relation between Demographic characteristics of SSI and their Barriers and Opportunities for SSI's in adopting Green Marketing Practices
- To evaluate the relationship between the Barriers and Opportunities for SSI's in adopting Green Marketing Practices
- To analyse the Factors behind Barriers and Opportunities for SSI's in adopting Green Marketing Practices

## HYPOTHESES OF THE STUDY

The following hypotheses were framed and analysed in the study

**HYPOTHESIS I:** There is no significant difference between Demographic characteristics of SSI and Barriers for SSI's in adopting Green Marketing Practices

**HYPOTHESIS II:** There is no significant difference between Demographic characteristics of SSI and Opportunities for SSI's in adopting Green Marketing Practices

**HYPOTHESIS III:** There is no significant relationship among Barriers and Opportunities for SSI's in adopting Green Marketing Practices

## PROBLEM STATEMENT

Small-Scale Industries (SSIs) in Trivandrum struggle to adopt green marketing. SSIs confront several challenges to adopting environmentally responsible marketing methods, despite the increased worldwide focus on sustainability. High startup costs, technical ignorance, regulatory impediments, and limited resources and experience are major challenges. Sustainable expansion for SSIs is complicated by these constraints. Government subsidies, rising customer demand for eco-friendly goods, long-term cost reductions, and brand image enhancement are all possibilities. This research examines Trivandrum City SSIs' green marketing challenges and potential. The study identifies and analyses these elements to assist SSIs overcome problems and capitalise on opportunities to develop sustainable business practices and market advantages.

## METHODOLOGY

### Research Design

- **Mixed-Methods Approach:** To comprehensively explore the barriers and opportunities for Small Scale Industries (SSIs) in adopting green marketing practices in Trivandrum City, a mixed-methods approach will be utilized. This approach integrates both quantitative and qualitative methods, providing a broad and deep understanding of the responses from employees of SSIs.

### Sample Selection

- **Target Population:** The study will focus on employees working in SSIs within Trivandrum City. This demographic is chosen to ensure that the insights and data collected are relevant to the local context and specific challenges and opportunities faced by SSIs in this region.
- **Simple Random Sampling Method:** To ensure a representative sample, a simple random sampling method will be employed for the survey process. This method will help minimize bias and ensure that each employee within the target population has an equal chance of being selected.

### Sample Size:

70 survey respondents were targeted to ensure statistical reliability. 70 respondents each from the SSI's are selected for the study.

## PILOT STUDY

The table 1 presents the reliability statistics for a set of items measuring Barriers and Opportunities in adopting Green Marketing

**Table: 1**

### Reliability Statistics for Barriers and Opportunities in adopting Green Marketing

Items	Cronbach's Alpha	N of Items
Barriers and Opportunities in adopting Green Marketing	0.846	17

**Source:** Statistically Analyzed Data

Cronbach's Alpha was calculated to be 0.846 across 17 items, which indicates that the reliability statistics for the hurdles and opportunities in implementing green marketing are satisfactory. This suggests that there is a high degree of internal consistency among the items, which implies that they are in fact assessing the notion that was supposed to be measured.

## DATA ANALYSIS

Data analysis is an essential process that entails examining, purifying, changing, and modelling data to uncover valuable insights, derive conclusions, and facilitate decision-making. In research and industry, data analysis facilitates the interpretation of intricate data sets, reveals patterns, and identifies trends.

**Table: 2**

### Demographic Background of Small-Scale Industries

Demographic Characteristics	n (Total = 70)	% of n
<b>Industry Type</b>		
Manufacturing	47	67.1
Services	17	24.3
Retail	6	8.6
<b>Years in Operation</b>		
Less than 1 year	13	18.6
1-5 years	25	35.7
6-10 years	16	22.9
More than 10 years	16	22.9
<b>Types of green marketing followed in SSI</b>		
Green Product Development	16	22.9
Eco-Friendly Packaging	29	41.4
Energy-Efficient Operations	11	15.7
Corporate Social Responsibility (CSR) Initiatives	14	20.0

**Source:** Primary data

**n** - Number of respondents

From table 2 a major 67.1% of respondents belong to the manufacturing sector, followed by 24.3% in services and 8.6% in retail. This signifies that the manufacturing sector is more dominant among small-scale industries in this sample.

A substantial percentage of small-scale industries have been operational for 1-5 years (35.7%), followed by those in operation for 6-10 years (22.9%) and over 10 years (22.9%). Merely 18.6% of the industries have been operational for less one year. This indicates that the majority of small-scale industries in the sample has a degree of expertise and establishment.

The predominant green marketing practice is eco-friendly packaging (41.4%), followed by green product development (22.9%), corporate social responsibility activities (20.0%), and energy-efficient operations (15.7%). This signifies that eco-friendly packaging is a prevalent strategy among small-scale firms for implementing green marketing techniques.

#### HYPOTHESIS I

**Null Hypothesis:** There is no significant difference between Demographic characteristics of SSI and Barriers for SSI's in adopting Green Marketing Practices

**Table: 3**

**One-way analysis for Demographic characteristics of SSI and Barriers for SSI's in adopting Green Marketing Practices**

Particulars		Sum Squares	df <sup>a</sup>	Mean Square	F <sup>b</sup>	Sig. <sup>c</sup>
Industry Type	Between Groups	1.183	10	0.118	0.251	0.009**
	Within Groups	27.803	59	0.471		
	Total	28.986	69			
Years in Operation	Between Groups	3.652	10	0.365	0.300	0.000**
	Within Groups	71.848	59	1.218		
	Total	75.500	69			
Types of green marketing followed in SSI	Between Groups	4.276	10	0.428	0.355	0.001**
	Within Groups	71.166	59	1.206		
	Total	75.443	69			

**Source:** Statistically analyzed data

**Note:** <sup>a</sup>Degrees of Freedom, <sup>b</sup>F-Statistic, <sup>c</sup>Significance

The significance level is lower than the p-value (Sig.) of 0.001, which indicates that there is a statistically significant difference between the different forms of green marketing that are followed and the obstacles that prevent people from adopting green marketing techniques.

In terms of the obstacles that prevent businesses from implementing green marketing strategies, the findings indicate that there are considerable disparities between the kinds of businesses, the years of operation, and the types of green marketing that were adopted. It may be deduced from this that the demographic variables in question play a significant part in determining the extent to which small-scale firms use environmentally conscious marketing techniques.

#### HYPOTHESIS II

**Null Hypothesis:** There is no significant difference between Demographic characteristics of SSI and Opportunities for SSI's in adopting Green Marketing Practices

**Table: 4**

**One-way analysis for Demographic characteristics of SSI and Opportunities for SSI's in adopting Green Marketing Practices**

Particulars		Sum Squares	df <sup>a</sup>	Mean Square	F <sup>b</sup>	Sig. <sup>c</sup>
Industry Type	Between Groups	2.226	13	0.171	0.358	0.000**
	Within Groups	26.760	56	0.478		
	Total	28.986	69			
Years in Operation	Between Groups	5.124	13	0.394	0.314	0.007**
	Within Groups	70.376	56	1.257		
	Total	75.500	69			
Types of green marketing followed in SSI	Between Groups	4.948	13	0.381	0.302	0.009**
	Within Groups	70.495	56	1.259		
	Total	75.443	69			

**Source:** Statistically analyzed data

**Note:** <sup>a</sup>Degrees of Freedom, <sup>b</sup>F-Statistic, <sup>c</sup>Significance

A statistically significant difference exists between the different forms of green marketing that are followed and the opportunities for adopting green marketing practices, as shown by the fact that the p-value (Sig.) of 0.009 is lower than the significance threshold. The findings indicate that there are substantial variations in the potential for implementing green marketing strategies depending on the kind of industry, the number of years in operation, and the forms of green marketing that were followed. The fact that this is the case shows that these demographic features have a significant impact in determining the chances that are accessible for environmentally responsible marketing tactics in small-scale establishments.

### HYPOTHESIS III

**Null Hypothesis:** There is no significant relationship among Barriers and Opportunities for SSI's in adopting Green Marketing Practices

**Table: 5**

**Inter Correlation Matrix for Barriers and Opportunities for SSI's in adopting Green Marketing Practices**

Particulars		Barriers	Opportunities
Barriers	Pearson Correlation	1	0.968**
	Sig. (2-tailed)	-	0.000 Significant
Opportunities	Pearson Correlation	-	1
	Sig. (2-tailed)	-	-

**Source:** Statistically analyzed data

**Note:** \*\* Correlation is significant at the 0.01 level (2-tailed)

The research demonstrates that there is a very substantial positive connection (0.968) between the obstacles that SSIs face and the potential that they have to use environmentally friendly marketing techniques. It may be deduced from this that the opportunities tend to rise in tandem with the obstacles, and vice versa the other way around. The existence of this positive correlation shows that SSIs may have improved opportunity to successfully apply green marketing techniques if they are able to overcome the obstacles that stand in their way. SSIs encounter a number of hurdles when it comes to implementing green marketing techniques, and the large positive connection suggests that these challenges are directly associated with the potential advantages that they might attain. When social service organisations (SSIs) recognise and overcome obstacles, they have a greater chance of discovering and capitalising on possibilities for sustainable development and innovation.

**Table: 6**

**Total Variance for Barriers for SSI's in adopting Green Marketing Practices**

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	1.682	24.029	24.029
2	1.496	21.364	45.394
3	1.348	19.260	64.654

**Source:** Statistically analyzed data

**Extraction Method:** Principal Component Analysis

A considerable percentage of the variability in the obstacles to adopting green marketing techniques is captured by Component 1, which explains 24.029% of the overall variation. This implies that this component captures a big portion of the variability. A further 21.364% of the overall variation may be attributed to Component 2, which brings the total proportion to 45.394% with extra explanation. It may be deduced from this that the first two components, when taken together, account for over half of the whole variability in the barriers.

Component 3 contributes an additional 19.260% to the overall variance, which ultimately results in a cumulative percentage figure of 64.654%. The fact that this is the case suggests that the first three components, when taken together, account for a significant percentage of the variability in the data.

There are three significant components that explain a total of 64.654% of the variation in the barriers to implementing green marketing techniques, according to the findings of the principal component analysis (PCA). Based on this, it seems that these three components account for the bulk of the variability that is present in the data.

**Table: 7**

**Factor Analysis of Barriers for SSI's in adopting Green Marketing Practices**

Particulars	Factors		
	1	2	3
Client confusion about green product advantages may impair demand and marketability	0.919		
Green marketing may risk SSIs owing to customer adoption and ROI issues	0.601		
Small enterprises may struggle with green marketing due to limited resources and expertise	0.543		
SSIs may struggle with environmental regulations		0.866	
SSIs without technological knowledge may struggle with green marketing		0.690	
Green marketing may cost SSIs due to the initial investment in eco-friendly products, technology, and procedures			0.714
SSIs may have trouble getting eco-friendly goods and technology because to supply chain constraints and higher prices			0.680

**Source:** Statistically analyzed data

**Extraction Method:** Principal Component Analysis

**Rotation Method:** Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 5 iterations

The component analysis finds three primary elements that provide a summary of the challenges that SSIs encounter when attempting to implement environmentally accountable marketing methods. Based on the relationships between the factors, each component categorises associated obstacles into categories.

**Factor I**

Confusion among customers over the benefits of environmentally friendly products may reduce demand and marketability (0.919). Due to problems with client acceptance and return on investment, green marketing may be at danger of SSIs (0.601) Due to limited resources and knowledge; small businesses may have difficulty engaging in environmentally conscious marketing (0.543). Barriers that are associated with marketability, client acceptance, return on investment (ROI), and limited resources and expertise are included in the first factor classification. The fact that "client confusion" has such a high loading indicates that it is a significant barrier that negatively impacts market demand.

**Factor II**

SSIs could have difficulty complying with environmental regulations (0.866). It is possible that SSIs that lack technical skills will have difficulty with green marketing (0.690). The regulatory and technical constraints are represented by the second factor. According to the high loading on environmental rules, SSIs have a considerable problem when it comes to complying with the requirements of the regulatory bodies.

**Factor III**

SSIs may incur costs as a result of the initial investment in environmentally friendly goods, technology, and processes to implement green marketing (0.714). It is possible that SSIs may have difficulty acquiring environmentally friendly products and technologies owing to supply chain restrictions and increased prices (0.68). SSIs face significant challenges in the form of initial investments and limits on their whole supply chain.

**Table: 8**

**Total Variance for Opportunities for SSI's in adopting Green Marketing Practices**

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	1.864	18.635	18.635
2	1.804	18.035	36.670
3	1.562	15.624	52.294
4	1.480	14.795	<b>67.089</b>

**Source:** Statistically analyzed data

**Extraction Method:** Principal Component Analysis

A considerable percentage of the variability in the potential for adopting green marketing techniques is captured by Component 1, which explains 18.635% of the overall variance. This indicates that this component captures a significant portion of the variability.

A further 18.035% of the overall variation may be attributed to Component 2, which brings the total proportion to 36.670% that comprises the whole variance. Because of this, it can be concluded that the first two components, when taken together, account for more than a third of the fluctuations in the opportunities.

An additional 15.624% is added to the overall variance by Component 3, which brings the entire percentage to a cumulative total of 52.294%. The fact that this is the case suggests that the first three components, when taken together, account for more than half of the variability in the data.

A total of 67.089% of the overall variation may be attributed to Component 4, which accounts for an additional 14.795% of the variance. In light of this, it can be deduced that the combination of these four factors accounts for a significant percentage of the variability seen in the data.

Based on the findings of the principal component analysis (PCA), there are four significant components that account for 67.089% of the variation in the opportunities to use environmentally friendly marketing techniques. Based on this, it seems that these four components account for the bulk of the variability that is present in the data.

**Table: 9**

**Factor Analysis of Opportunities for SSI's in adopting Green Marketing Practices**

Particulars	Factors			
	1	2	3	4
Businesses that become green get incentives, grants, and subsidies from regulatory bodies and governments	0.716			
Eco-conscious consumers choose sustainable companies	0.712			
Sustainability is essential for corporate longevity	0.618			
Green marketing allows SSIs to educate customers about sustainable products and operations	0.577			
Sustainable methods improve employee's morale and engagement		0.856		
Implementing environmentally friendly practices may save money over time		0.852		
Green marketing enhances SSI brand image			0.807	
Green marketing may lead to relationships with like-minded enterprises, NGOs, and governmental organisations			0.698	
Eco-friendly goods and practices may attract a specialised market and loyal consumers				0.823
Green marketing promotes innovation				0.789

**Source:** Statistically analyzed data

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations

The component analysis finds four primary elements that provide a summary of the options that are accessible to SSIs in the process of implementing environmentally friendly procedures for marketing. Each element categorises opportunities that are connected to one another based on the correlations between them.

#### **Factor I**

Incentives, grants, and subsidies are provided by regulatory organisations and governments to businesses that make an effort to become environmentally conscious (0.716). Consumers who are concerned about the environment choose sustainable businesses (0.712). For the survival of a company, sustainability is absolutely necessary (0.618). Green marketing gives SSIs the opportunity to educate consumers about environmentally friendly goods and business practices (0.577).

In the first factor, the financial and market-related prospects are highlighted. These opportunities include customer preferences for sustainable enterprises, government incentives, the lifespan of corporations via sustainability, and educational advantages associated to sustainability.

#### **Factor II**

Methods that are environmentally responsible boost employee morale and engagement (0.856).

It is possible that money will be saved over time by implementing environmentally friendly practices (0.852). The second factor places an emphasis on the internal advantages, which include enhanced staff morale and cost savings over the long term as a result of the implementation of sustainable practices.

#### **Factor III**

The image of the SSI brand is improved via green marketing (0.807). Green marketing may result in partnerships with other businesses, non-governmental organisations (NGOs), and government agencies that share similar values (0.698). Concerning the third factor, the emphasis is placed on the development of the brand image as well as the

possibility of establishing contacts and working together with other organisations that have comparable sustainability objectives.

#### **Factor IV**

Products and activities that are favourable to the environment may appeal to a niche market as well as devoted customers (0.823). The promotion of innovation via green marketing (0.789). Factor 4 is responsible for capturing the market and innovation potential, which include recruiting a certain market segment and customers who are loyal to the brand, as well as generating innovation within the industry.

#### **FINDINGS AND DISCUSSIONS**

Small-scale manufacturing could increase green output. Experience: A stable business environment is shown by the fact that most small businesses have been operating for over a year. Eco-friendly packaging is the most common green marketing strategy, emphasising the need for sustainable packaging in small enterprises.

Green marketing is tough in varied sectors, requiring distinct solutions. SSIs' green marketing challenges depend on their age, demonstrating the need for maturity and competence. SSIs should prioritise government backing, personnel training, and technical improvements to overcome the stated barriers. Addressing these hurdles may help SSIs increase marketability, customer engagement, and long-term cost savings. Green marketing adoption requires an integrated strategy that overcomes obstacles and capitalises on opportunities. SSIs, industry groups, and government agencies may collaborate to eliminate hurdles and maximise opportunities. SSIs may adapt to changing market circumstances by promoting continuous improvement and assessing impediments and possibilities.

The Trivandrum City research on Small-Scale Industries (SSIs) green marketing barriers and opportunities provides numerous major findings. High beginning expenses, technical ignorance, regulatory issues, and limited resources are the main obstacles. These hurdles prevent SSIs from fully embracing green marketing. The survey also highlighted government incentives, rising customer demand for eco-friendly goods, long-term cost reductions, and brand image improvements. A positive association between obstacles and opportunities shows that overcoming them might provide significant rewards. The results emphasise the necessity for a holistic strategy that eliminates obstacles and capitalises on possibilities. SSIs need financial incentives, training, resource-sharing, and legislative lobbying to overcome these problems. By focussing on these methods, Trivandrum City SSIs may implement green marketing techniques for sustainable development and market advantage.

#### **CONCLUSION**

The research that was conducted on the various obstacles and possibilities that Small-Scale Industries (SSIs) face when it comes to implementing environmentally friendly marketing strategies in Trivandrum City sheds light on both substantial hurdles and attractive chances. The implementation of sustainable marketing methods is hampered by a number of key obstacles, including high starting costs, a lack of technology understanding, regulatory constraints, and limited resources. On the other hand, these difficulties also give SSIs with possibilities that are one of a kind. Incentives from the government, an increase in customer demand for environmentally friendly goods, the possibility of cost savings over the long term, and an improved brand image are all significant advantages that SSIs may take advantage of. Given that there is a positive link between opportunities and barriers, it is reasonable to assume that overcoming these hurdles might result in the acquisition of considerable benefits. In order to aid the transition to green marketing, it is vital to use an integrated strategy that includes financial support, technical training, resource sharing, and lobbying for legislation. By overcoming these obstacles and making the most of the possibilities, small and medium-sized enterprises (SSIs) in Trivandrum City have the potential to achieve sustainable development, improve their competitive edge, and contribute to a more environmentally friendly economy.

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