Archana Dilip Kshirsagar

“STUDY OF INCREASING FOCUS ON GREEN MARKETING PRACTICES OF AUTOMOBILE AND ANCILLARY INDUSTRIES IN AND AROUND PUNE”

ABSTRACT

1. Introduction to the Topic

Global warming’, ‘Greenpeace’ and ‘Ozone Layer Depletion’ are the terms almost everyone is quite familiar now. As society becomes more concerned with the natural environment, businesses have begun to modify their behaviour in an attempt to address society's "new" concerns. Some businesses have been quick to accept concepts like environmental management systems and waste minimization, and have integrated environmental issues into all organizational activities. Polonsky (1994).

The industries which claim that they are environment friendly and have concern for society are known as green industries, their marketing philosophy is termed as green marketing and their environment friendly products are called as green products. Saxena, Khandelwal (2010) .Green marketing is relatively new focus in business endeavours. This leads to a higher level of awareness of environmental issues in the business domain and many corporations are required to consider the environmental issues in their strategic planning in order to meet stricter environmental standards.

In recent era the automobile sector has been one of the major reasons behind global warming due to its high carbon emissions. It has become necessary to introduce green technology vehicles in Indian market to reduce its effects on environment. Green marketing can be considered to be contributing towards enhancing the environmental performance of industry and an important element of the evolution of the Indian automobile industry as it responds to challenges of environmental regulations, increasing customer expectations and economic pressures.

This study is an attempt to understand the green marketing concept, its relevant aspects and specifically the practices and implications of green marketing in automobile industry in Indian context through the field survey. It attempts to study
underlying factors like government forces, competitive pressure their impact on the implementation of green marketing practices and reasons for their implementation. The study also attempts to understand correlation between the extent of green marketing practices implementation and market performance. In addition it attempts to study the challenges in executing green marketing practices in Indian context and solutions devised by industries to these challenges. While understanding the concept and significance of green marketing, insights have been provided about the global perspective on green marketing. The study attempts to identify the green practices in certain other industrial sectors other than automobile industry.

2. Overview of Automobile Industry In The Light of Green Marketing

Though Service sector in India has major contribution in GDP, Automobile industry has its own consistent growth and has managed to retain its contribution in GDP. The Indian automobile and its ancillary industry have emerged as a fastest developing sector of the Indian manufacturing industry. India is emerging fast as hub for Global Vehicle Programs. It is expected that by 2020, auto component industry will be USD 113 billion (ACMA 2012-13). Growing Engineering and IT capability for designing and manufacturing presents huge opportunity to partner in product and process innovation. It also presents opportunity to outsource for OEMs (Original Equipment Manufacturers) and Tier 1 vendors. ACMA (2012-13). In the 2011 Union Budget, a set of new incentives were declared for electric vehicles (environment friendly vehicles) - full exemption of basic custom duty and concessional excise duty of 4% to batteries imported for electric vehicles in replacement market. The auto component industry had to be content with a meager growth of 5.6 percent during 2012-13, with turnover of INR 2,16,100 crores (USD 39.7 billion), notwithstanding the average inflation of over 3% in vehicles prices. ACMA (2012-13)

Development of hybrid technology, installation of CNG kits in small cars, practicing 3R- reduce, reuse, and recycle, promoting green procurement at supplier end, implementing ELV compliance and life cycle assessment (LCA) system, development of alternative fuel engine technologies, these are the ways through which automobile industry attempts to reduce CO2 emission.

Automobile industry has responded to stricter governmental regulations, voluntary agreement and collaborative R & D initiatives by seeking to adopt cleaner
manufacturing technologies and investigating in environment-related research. In addition, competitive pressures ensure that every major high-volume car manufacturer is working towards increased levels of resource productivity.

3. Literature Review

In 21st Century due to challenges of global warming, nations and people have high concerns for environment protection at the time demand by consumer groups for environmentally friendly products has also increased which led to the emergence of a ‘new marketing philosophy’, known as green marketing. Researcher studied various literature concerned to green marketing.

3.1 Need For Green Innovation in Automobile Sector: Vergragt (2006) states that the automotive industry is one of those industries that have visibly suffered from a strong demand for higher environmental performance. This industry is one of the important source of employment generation and socioeconomic development of a nation. However, despite these benefits there are environmental burdens as well: local air pollution, greenhouse gas emissions, road congestion, noise, mortality and morbidity from accidents, and loss of open space to roads, and urban sprawl.

3.2 Green Marketing Practices in Automobile: Bennett David John (2010), Identifies various green operations in automobile sector with world’s three major car manufacturers. They are pursuing various environmental initiatives involving the following green operations practices: green buildings, eco-design, green supply chains, green manufacturing, reverse logistics and innovation. He also found that, there might be a gap between what companies say in their environmental reports and what they actually do.

Sharma, Maheshwari (2014) is of the opinion that, to design the strategy to implement green marketing in the auto sector, it is imperative for companies to gauge the level of perception on their green marketing initiatives. There is a need for a multilayered framework in all corporate functions and business units, from supply chains to internal operations to marketing and consumers to ensure that all aspects of the company are aligned with the organization’s visions. Though environmental protection is in trend of the day, green marketing is still found as its infant stage due to the lack of or low awareness of consumers on the eco friendly activities and products provided by the automobile companies in India. Yet the limited awareness
and their perception and attitude to buy the green vehicles pressurizes the marketers as well as researchers to do a lot of research on green marketing in the automobile companies to explore the full potential of green automobiles in India.

Shweta Batra & Amit Shankar (2012) supports above view and add the technology aspect in auto sector for implementing green marketing. Technological support to create green marketing does not exist to that extent and automobile companies haven’t invested towards it. Whatever technology available is too expensive to be introduced in the Indian market. Already existing fuel cars network can’t be replaced overnight.

3.3 Challenges for automobile industry to implement green practices:
Ravi (2012) has the identify that the Indian auto industry has to battle major challenges that emission, energy safety and security, and climate change bring. The only way forward is to achieve growth through innovative technologies and promote sustainable mobility. Auto manufacturers have continued to invest in R&D dedicated to ‘green innovation.’ These green initiatives are expected to address issues of fuel emissions and efficiency – reducing fuel consumption and greenhouse gas emissions.

3.4 Role of Government-Green Marketing and Auto Sector: In environment and automobile regard, CSE (2011) enlighten on Government on its part should come out with economic instruments as its major tool to regulate automobile companies. Pollution control body too needs a complete rethinking of its regulatory approach to this sector.

Arushi Thakur & Suheil Murgai (2012), support this view by stating government initiatives are going to be one of the major drivers for bridging the gaps between consumers and electric cars manufacturers. Reduction in cost of vehicles and providing special benefits of parking, charging infrastructure and rebates would boost the adoption of these vehicles in future.

3.5 NGO Efforts: The CII (Confederation of Indian Industry) (2014) advocates the need for energy audits and smart energy management in industries. CII held a conference titled on “Innovative Green Models for Profitability & Sustainability”. The main objective of this conference was to bring together key stakeholders of the automobile industry to discuss ‘green’ strategies and solutions to achieve sustainable mobility. In the face of increasing competition and fluctuating demands, the auto makers have to focus on ‘greener technologies’ to achieve
sustainable mobility in the future. At the manufacturing end, companies are tailoring their product’s design to factor in the requirement for ‘cleaner’ vehicles that will lead to fuel economy and cost savings in the future.

3.7 Reasons for practicing green marketing: Five possible reasons cited by Polonsky (1994) are: 1. Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives Keller (1987), Shearer (1990); 2. Organizations believe they have a moral obligation to be more socially responsible Davis (1992), Freeman and Liedtka (1991), Keller (1987), McIntosh (1990), Shearer (1990); 3. Government legislation - Governmental bodies are forcing firms to become more responsible NAAG (1990). In many cases, mandatory environmental legislation is also forcing behavioral changes in consumers. 4. Competitors’ environmental activities pressure firms to change their environmental marketing activities (NAAG 1990); and 5. Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behaviour Azzone and Manzini, (1994).

3.8 Green marketing benefits: Robert Dashlstrom (2011) highlights that green marketing has a positive influence on multiple participants in economy. The environment, developing economies, consumers, corporate strategy, the product production process, and supply chain benefit from green marketing. J. Ottman, (1997) has also highlighted various benefits of adopting green marketing to the firms are, competitive advantage, Increased market share, better physical environment, sustainable development. Well co-ordinated use of all green marketing strategies will result in better physical environment in terms of reduced air and water pollution, waste energy depletion, global warming, deforestation, depletion of natural resources, and rate of landfills.

4. Need of The Study

Through the comprehensive literature review it is clear that resources are limited and human wants are unlimited, it is important for the marketers to utilize the resources efficiently without waste and have to find other alternatives in order to sustain in the business, so green marketing is inevitable.

By adopting sustainable practices, companies can gain competitive edge, increase their market share, and boost shareholder value. In academics this subject is neglected, this research will help academician as well as society to become more responsible towards our mother earth. Research provides the basis for government
policies in our economic system. The study will provide guidance to environmental committees to reach to companies to solve problem faced by them. Environmental activism will has led to legislations and hence firms are now required to comply with the regulatory mechanism so green marketing has become “Need of the Hour”

In this view there is need to understand, what are various green marketing practices implemented by automobile industry, what are challenges and solutions explored to them, Therefore the present study on “A Study of Increasing Focus on Green Marketing Practices of Automobile and Ancillary Industries in and around Pune”

4.1 Interdisciplinary relevance: Scarcity of natural resources, increasing demand consideration of the environment past history and consequences of marketing actions. Thus marketers must consider how consumption influences green-house gas production, energy consumption, water land, air quality and biodiversity. Marketers are increasingly monitoring their influences on the environment.

The danger to the environmental balance and ecology has made marketers think about the new role that marketing firms need to play. They need to market “environmentally safe” products. This concept of green marketing believes in balancing environmental issues with customer needs kotler et al,( 2010). Thus green marketing envisages a symbiotic relationship between environment and marketing.

5 Research Design And Methodology

5.1 Research Gap and Research Problem: Most of the studies done so far, identify the green marketing in FMCG sector or consumer behavior with focus on green marketing. There is considerable gap in existing research as it does not explain what are various green marketing practices in automobile and ancillary industry or what are the challenges, benefit due implementation of green marketing practices. This study proposes to bridge the above gap by understanding various issues and challenges in green marketing with respect to automobile and ancillary industry in and around Pune.

Statement of Research Problem:

This study is undertaken with an objective to study, an increasing focus on green marketing practices in automobile and ancillary industries in and around Pune. Many Automobile companies in developed economies have been practicing green marketing
for more than two decades. Indian automobile companies have started green marketing practices in recent times. There may be many issues related to green marketing practices in automobile industry in India, which need to be studied in detail hence to bridge this gap, this research has been undertaken.

5.2 Objectives of the study:

1. To study the evolution of green marketing awareness in India in general and automobile industry in particular.
2. To critically study the forces affecting initiating, implementing green marketing practices in automobile industry in and around Pune.
3. To study the various problems for implementing green marketing practices.
4. To evaluate how companies are implementing green marketing practices.
5. To study impact of green marketing practices on market performance.

5.3 Hypotheses of the study –
Based on the above objectives the researcher has designed hypothesis.
1A Government regulations have more influence on initiating and implementing green marketing practices.

1B Competitive forces increase/intensify implementation of green marketing practices.

2. Companies which are practicing green marketing get more competitive advantage.

3. There is a positive correlation between the extent of green marketing practices implementation and market performance.

5.4 Significance of the study:
This study will attempt to make contribution to marketing literature from both a theoretical and managerial perspective by satisfying the research objectives. This study will contribute to the marketing literature by providing an empirical examination of several forces affecting initiating, implementing green marketing practices. The results of the study will also provide an improved understanding of correlation between the extent of green marketing practices implementation and various market performance factors like increased market share, customer satisfaction, competitive advantage, profitability, sales volume, brand image.
This study will benefit marketers and practitioners in widespread and cash cow automobile industries and its ancillaries industries. This study analyzes the dimensionality of green marketing in terms of, implementation, competitive advantage, challenges in implementation and solutions devised by the industries. This statistical database offers huge scope and insights to green marketing. It also suggests strategic tools for marketing, production, sustainability managers. This study will be beneficial to the government as well as regulatory authorities like ARAI which is co-operative industrial research association by the automotive industry with the Ministry of Industries, Government of India, to review its environmental policy.

5.5 Scope of the Study:

- This research is an attempt to know whether this green marketing concept has been accepted by manufacturing industry or not. Hence in this study focus is only on B2B i.e. business to business and B2C i.e. Business to customer is not focused since final customers who are actually buying the vehicles have not taken into consideration since they have more concern for price, performance style, convenience, aesthetic view and have very less concern about environment.
- This study includes OEM (Original Equipment Manufacturer) Tier 1 supplier, Tier2 supplier in automobile industry.
- Here in this study researcher have chosen B2B(Business to Business) i.e. automobile and its related ancillary industries in and around Pune.
- This Industrial zone comprises of, Pimpari, Chinchwad, Bhosari, Hinjewadi, Rajangaon, Urlikanchan, Chakan, Hadapasar.
- Automobile industry can be broadly divided in to five parts Passenger cars, MUV’s, 2Wheeler, 3Wheelers, LCV’s, MCV’s & HCV’s.

Why customer survey not attempted

- In this research final customers who are actually buying the vehicles have not been taken into consideration since they are more concerned for price, performance style, convenience, aesthetic view and have very less concern about environment.
Many automobile companies have launched CNG variants of the vehicles which are environment friendly products. Customers are purchasing those CNG vehicles not because they are environment friendly products but with the concern of, their running cost is low compare non green product.

5.6 **Type of Research:** This is descriptive and empirical type of research which include survey and fact finding enquiries of various kinds.

5.7 **Sampling Design:** Type of Universe: In this study since the number of items are certain, the universe is finite. The total number of automobile industries in and around Pune which are associated with MCCIA are 332, as per MCCIA trade directory 2010.

**Sampling Element:** Pune region -Automobile and related ancillaries in Pune Industrial zones( VIZ,Pimpari,Chinchwad, Bhosari, Hinjewadi Rajangaon, Urlikanchan, Chakan, hadapasar).

**Sampling Tool/Technique:** Here in this study the criteria for selection of companies from the chosen population are year of establishment and turnover of the company. Out of 332 sample size 81 companies were chosen on the basis of -

1. Their existence is minimum ten years and 2. Their turnover is more than 10 US Mln $. Considering the above criteria’s, **Non probability judgmental sampling technique is to be used, in this research study.**

**Sample size calculations:** sample size was determined by using mean method since most of the variables were measured using a five point interval scale.

Out of the total population 11 OEM’s and 70 tier 1,tier 2 suppliers are chosen., so 11 +70 = 81 is the final sample size.

5.8 **Source and Methods of Data Collection**

This research utilizes both primary as well as secondary data.

**Primary data :** Primary data is collected by a survey of the above sampling elements.

Research Instrument –Questionnaire

For this study structured questionnaire is formed and data collected through traditional questionnaire in hard copy as well as an ‘Online Questionnaire’ is
prepared. As per the respondents convenience one of the above method has been used. An online questionnaire using Google docs was designed and its link was send to the respondents. Same questionnaire was used for both the methods (online as well as field survey.)

**Primary data collection from respondents:** Based on extensive literature review, a detailed questionnaire was prepared and circulated among automobile and ancillary industries. Here the responses were taken from plant managers/operation manager in consultation with marketing manager of automobile and ancillary industries.

Besides this, taking into account government initiatives researcher tried to seek information from : **Directorate of Industries** –Govt. Of Maharashtra: Industrial officer: Office of the joint Director of Industries, Pune Region, Pune

**Secondary data:** For this study, the researcher has collected secondary data by conducting a comprehensive literature survey of books, National and International referred journals, conference proceedings, previous relevant research work, magazines, newspapers, government publications, internet websites . Researcher has also used some prime sources for secondary data like Mahratta Chambers of Commerce Industries and Agriculture (MCCIA) trade directories and its other publications, Annual Reports of companies, ACMA directories and its other publications .

6. **Analysis of the Data**

Analysis was done with the help of simple frequency table, Multiple Response Analysis and various percentage tables.

To check the hypotheses various statistically inference test was applied like Friedman Chi square, Binomial Test and Bivariate Correlation analysis.

**Objective No 1.**

**To study the evolution of green marketing awareness in India in general and automobile industry in particular.**

After the study, we have found that the various companies in India are taking initiative in the area of green marketing in the mainstream operations of the company. Some companies are initiating and implementing as a part of their corporate social
responsibility. However environmental strategy formation and implementation are slowly making it to the priority lists of Indian corporate. In India various sectors like Banking, FMCG, Pharmacy, Consumer Electronics, IT, Telecommunications, Oil and Gas, Energy, Housing and construction are the leading sectors which have an environmental strategy in place, they have implemented through its 'green' initiatives.

From the extensive literature survey it has been observed that, India being developing nation, an increasing focus on environment friendly practices in order to reduce harmful impact on the natural environment has gradually enhanced. However remarkable green marketing practices have been observed from last decade.

**Evolution of green marketing awareness - Automobile industry in particular:**

It is quite evident from the findings and discussions that Automobile industries in India are quite positive while initiating and implementing green marketing practices. It has been observed that some companies have just started green marketing practices. Some of the companies are practicing it from last five to ten years, which indicates an increasing focus on green marketing practices in automobile and ancillary industries.

**Objective No. 2**

To critically study the forces affecting initiating, implementing green marketing practices in automobile industry in and around Pune.

It is observed that various forces are affecting while initiating implementing green marketing practices across the organization. The most significant forces are 1. “Government regulations to reduce production of harmful products” 2.“Competitor’s environmental activities forcing the firm to change their conventional activities into environmental friendly activities.” and 3.“Corporate Social Responsibility (organizations believe that, they have moral obligation.)”

**Objective No.3** - To study the various problems for implementing green marketing practices.

Companies are facing various problems while implementing green marketing practices. Major problem faced by automobile and ancillary industry are , “Sustainable manufacturing will demand new equipments and process which will be costly affair” followed by “Green marketing activities require more budget”
whereas some other problems are “Competitors’ pressure.” , “Lack of renewable resources.” , “Suppliers cannot provide green inputs.” “Parent companies guidelines do not allow.” Apart from the above close end options some more problems revealed by the companies are budget allocation, less returns on investment, less awareness regarding environment.

**Objective No. 4-** To evaluate how companies are implementing green marketing practices.

Companies are initiating and implementing green marketing practices through various ways.

Respondents were asked to tell about the extent to which the nine green marketing practices have been implemented in their organization.

The evaluation is done based on most largely implementation of green marketing practices. According to them they were “Waste minimization, pollution prevention”, “Developing environment friendly products”, and “Eco-friendly modification in product design” and the least frequently implemented green marketing practices were “biodegradability/Compostability of material during WIP(work in progress) or end products” and “Green packaging and labels”.

Further Evaluation has been done as follows

Each item was measured using a four point scale. (1= No intention of implementing, 2= Not implemented but Planning to implement, 3= partially implemented, 4= fully implemented). Result indicates that automobile companies are aware about green marketing and majority of them have partially implemented these green marketing practices through various ways in their organisation. Few respondents expressed that they are fully aware of this concept and fully implemented green marketing practices in their organisation. The respondents who have not implemented, they are planning to implement green marketing practices.

There is huge scope for the companies who have partially implemented or those who have planning to implement, they can use green marketing as a part of their marketing strategy in order to get competitive advantage and sustainability in the business.
Objective No. 5 To study impact of green marketing practices on market performance.

Impact of each green marketing practice on respective market performance indicators has been analysed in detail. The relationship between two variables i.e. green marketing and market performance is measured with Bivariate Correlation on the basis of weak, moderate, strong relationship as listed below:

There is moderate relationship between developing environment friendly products, eco-friendly modification in product design, use of renewable resources (like bio-fuel, wind energy, solar energy etc) ,considering products complete life cycle from raw material extraction to disposal – which is less harmful to environment,(cradle to grave approach) and increased market share , competitive advantage.
There is weak relationship between” developing environment friendly products”, “eco-friendly modification in product design”,” Waste minimization and pollution prevention and profitability, sales volume, business sustainability.

Hypotheses
H1A: Government regulations have more influence on initiating and implementing green marketing practices.

H1B: Competitive forces increase/intensify implementation of green marketing practices.

Test Statistic: Friedman Chi square

Friedman Chi square test is used to test hypotheses 1A,1B and both hypotheses are accepted. This ultimately proves that Government regulations and Competitor’s environmental activities are the prime reasons for practicing green marketing practices. Thus both the hypothesis are tested and validated.

Conclusion: It can therefore be concluded that most significant reasons for implementing green marketing practices in the organization are “Government regulations to reduce production of harmful products”, “Competitor’s environmental activities forcing the firm to change their conventional activities into environmental friendly activities.”
**Hypothesis H2**: Companies which are practicing green marketing get more competitive advantage.

**Test Statistic**: Signed Binomial test

Signed Binomial test was conducted to see whether the proportion of the respondents agree to above seven statements, establishing relationship between green marketing practices and competitive advantage is more than 50%.

In case of these statement observed proportion is more than test proportion, hence it can be concluded that respondent believe that, Product design is incorporated with ecological attributes; Product is fulfilling government norms related to environment, and Certifications of an organization like ISO 14000, 14001 these green marketing practices are the enablers of competitive advantage.

The above hypothesis is **accepted**. Thus we deduct that companies which are practicing green marketing get more competitive advantage.

**Hypothesis H3**: There is correlation between the extent of green marketing practices implementation and market performance.

**Test Statistic**: Bivariate Correlation

Impact of each green marketing practice on respective market performance indicators has been analysed in detail. The relationship between two variables ie green marketing and market performance is measured with Bivariate Correlation on the basis of weak, moderate, strong relationship as listed below:

There is moderate relationship between developing environment friendly products, eco-friendly modification in product design, use of renewable resources (like bio-fuel, wind energy, solar energy etc), considering products complete life cycle from raw material extraction to disposal – which is less harmful to environment. (Cradle to Grave approach) and increased market share, competitive advantage, business sustainability. There is weak relationship between “developing environment friendly products”, “eco-friendly modification in product design”, “Waste minimization and pollution prevention and profitability, sales volume.
7. Findings and Conclusion

Key findings of the study reflect that Industries these days have high concern for environmental protection and have strong belief that green marketing can definitely be used as a tool for gaining competitive and sustainable growth. Some companies are initiating and implementing these practices as a part of their corporate social responsibility. However environmental strategy formation and implementation are slowly making it to the priority lists of Indian corporate.

Green marketing should not be considered as just one more approach to marketing, instead should be pursued with greater vigour as it has societal and environmental dimensions. With this view organizations are now aware with the fact that without adopting green in the core of their strategy they cannot survive in the present competitive era. Automobile companies are also adopting green to retain their image in the market.

It is quite evident from the findings and discussions that all the three types of Automobile companies i.e. OEM, Tier 1 supplier and Tier 2 supplier have positive attitude for green philosophy and while initiating and implementing green marketing practices. It has been also observed that most of the companies are practicing it from a decade, and some companies have just started a green marketing practice which indicates an increasing focus on green marketing practices in automobile and ancillary industries. They had an opinion that sustainable development through green marketing is the new mantra of success and growth.

The majority of the automobile companies are partially aware about green marketing and they have implemented these green marketing practices in any of the form, including product modification, changes to the production process, packaging changes, which are less detriment to the environment, developing environment friendly suppliers ,greening supply chains, use of renewable resources, considering products complete life cycle from raw material extraction to disposal – which is less harmful to environment.( cradle to grave approach), waste minimization and pollution prevention.

This research has revealed that, due to several reasons – regulatory pressures from government, competitive forces, technological developments, influences the action of automobile and ancillary firms to ensure they are going green in new product
development, product modification packaging, product safety throughout production, use and post-consumption.

The competitors in the market have strong influence on the activities of the firm, they are facing increasing competitive pressure to indulge greening-ness at every stage from choosing the raw material, in production process, in selling and marketing to end of product life cycle. In this regard firms must proactively monitor the action and performance of their competitor. Moreover these firms can establish a source of competitive advantage if they raise industry expectations for the environmental standards.

There are huge opportunities in the Indian market for companies that establish their green credentials early. Being Eco-friendly gives the firm a USP (Unique Selling Proposition, which competitor may find difficult to match, hence being eco-friendly makes a firm competitive and customer friendly as well.

The study also revealed that green marketing practices have positive impact on market performance. This impact is analysed through relationship between green marketing practices and various market performance indicators as below:

There is positive relationship between the green marketing practices like developing environment friendly products, waste minimization and pollution prevention eco-friendly modification in product design, use of renewable resources, considering products complete life cycle from raw material extraction to disposal – which is less harmful to environment. (cradle to grave approach) and market performance indicators like positive company image, competitive advantage, profitability, sales volume, business sustainability increased market share.

Although there are huge opportunities for green marketing, Indian auto industry has to battle major challenges such as emission, energy safety, and climate change, lack of renewable resources; sustainable manufacturing will demand new equipments and process which will be costly affair. However despite of the challenges, auto industry has devised solution like set waste reduction goals contract with eco-friendly vendors, implementation of green marketing strategies (Environment friendly product, price, promotion, logistics strategies), waste management programmes, employee awareness for environment friendly practises, 3R practises - Reduce, Reuse, Recycle, sustainability developments through carbon credits.
The only way forward is to achieve growth through innovative technologies and promote sustainable mobility. Study also revealed that, auto manufacturers have continued to invest in R&D dedicated to ‘green innovation.’ These green initiatives are expected to address issues of fuel emissions and efficiency – reducing fuel consumption and greenhouse gas emissions. This study indicates noticeable uses of various green branding practices which are the strongest enablers to get competitive advantage.

The insights from this study can indeed be used to formulate marketing strategies especially for green products by OEMs as well as ancillary industries for business sustainability with brighter today and greener tomorrow. It would ultimately give rise to sustainable development and preservation of environment. Green marketing helps in the effective outcomes like they could get a first-mover advantage, firms can also develop a competitive edge by creating a brand-image as an environment conscious body.

Government and NGO are also supporting to the firms. Industry associations such as the CII actively encourage their members to be more sustainable. Central Government and state government of India is funding for environment friendly project cost from ten crore to 20crores for Cluster program.(information source is Industrial officer: Office of the joint Director of Industries, Pune Region.

In India along with automobile sector there are various sectors like Banking, FMCG, Pharmacy, Consumer Electronics, IT, Telecommunications, Oil and Gas, Energy, Housing and construction are the leading sectors which have an environmental strategy in place. The companies from these sectors are taking intense efforts to implement green marketing through various initiatives like green innovation, green operations, waste management, green supply chain management, energy conservation, biodiversity, practising 3R Reduce, Reuse and Recycle. It has been also observed that most of the Indian companies from above sectors are practicing green marketing practices from a decade.

Finally, consumers, industrial buyers and suppliers need to intensify the efforts to minimize the negative effects of the environment-friendly marketing in the context of green marketing assuming even more importance and relevance in developing countries like India. This study concludes with a call to the other sectors other than
automobile sector also to pursue eco friendly initiatives to foster long term growth in the economy.

9. Limitations Of The Study: This study has included auto and ancillary industries which are associated with MCCIA (Mahratta Chambers of Commerce Industries and Agriculture) only. Scope of this research is limited to automobile and related ancillaries in and around Pune industrial zone.

10. Suggestions: Marketers should play crucial role since they have the responsibility to make the industrial customer understand the need for and benefits of green products as compared to non-green ones. In these times, Green marketing assumes even more importance and relevance in developing countries like India.

There is close association between green marketing practices and market performance. Hence, companies should focus more on to develop environment friendly products and put an endeavour for eco-friendly modification in product design which will increase market share and give competitive advantage.

Archana Kshirsagar
Research Student

Dr. Mukund Tambe
Research Guide

Date:                Date:
Place:               Place: