CHAPTER - 6

OBSERVATIONS

AND FINDINGS
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Introduction: This Chapter describes the observations and findings of the research. It gives a brief idea about the whole research work, which will help the reader of this thesis to get clear cut overview of the work done by the researcher during the study. Findings while presenting have been linked with the related objective.

Findings (Addressing objective1)

Objective 1- To study the evolution of green marketing awareness in India in general and automobile industry in particular.

6.0 From Literature review

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.

In developed nations the beginning of environmentalism can be referred to the 1960s and early 1970s with increasing concern about the impact of consumption and production patterns on the environment due to debates about health effects and the impact of economic and population growth (Cohen, 2001). However, despite some attention during this time the real idea of green marketing emerged in the late 1980s with an increase in green consumerism. Environmental awareness, increasing interest of consumers in green products and the willingness to pay for green features, encouraged companies to show interest in green marketing. (Peattie and Crane, 2005).

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:

Although it is difficult to become 100% environment friendly, an Indian automobile industry is trying to cope with the challenge of implementing ecology in holistic way from production to consumption due to growing concern of consumers. Automobile manufacturers therefore need to strike a difficult balance between competing objectives, to mitigate climate change, reduce urban air pollution, enhance energy security and strengthen the competitiveness of national auto industries.

6.1 Type of Manufacturers

From the respondents survey, it can be observed that fifty six percentage i.e. majority of the respondents were tier one supplier those who are supplying components to the original equipment manufacturer OEM’s. Remaining respondents were Tier 2 Suppliers and OEM. (Ref. Table 5.1)

6.2 Awareness about green marketing concept

It can be seen that that majority i.e. sixty three percent respondents were partially aware of green marketing concept, whereas twenty seven percent were completely aware of green marketing concept. (Ref. Table No. 5.2)

6.3 How long company has been practicing above green marketing activities

Though majority of the companies are partially aware of the green marketing concept, they are practicing it from last ten years which indicates an increasing focus on green marketing practices in automobile and ancillary industries. (Ref. Table No. 5.5)

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.

Since these majority companies are partially aware and have less orientation regarding this concept, they need more awareness and motivation for green marketing practices implementation.
Findings (Addressing objective 2)

Objective 2- To critically study the forces affecting initiating, implementing green marketing practices in automobile industry in and around Pune.

6.4 Various reasons for implementing green marketing practices across the organizations.

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.” (Ref. Table No. 5.7)

Findings (Addressing objective 3)

Objective 3- To study the various problems for implementing green marketing practices.

6.5 Problems in 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 requires more budget” whereas some other problems are “Competitors’ pressure.” , “Lack of renewable resources.” , “Suppliers cannot provide green inputs.” “Parent companies guidelines do not allow.” (Ref. Table No. 5.9)

Apart from the above, the other open ended problems are

1. Less returns on investment, less awareness regarding environment, Budget allocation.

6.6 Various solutions explored for above problem

According to the majority respondent “Conduct a waste assessment exercise,” is the devised solution followed by “Set waste reduction goals “and “Contract with eco-
friendly vendors” are devised solutions to challenges for green marketing implementation.(Ref Table No.5.11)

**Some open ended solutions companies have explored at their end are:** Developed alternative fuels, use of wind power, hybrid electric products, striving for technology up-gradation for hybrid products, with the usage of appropriate technology and production methods to add value to the system and continuous identification and elimination of wastage. Companies ensure that the pursuit of excellence continues on the path of TQM culture. Incorporate ‘green’ perspective in all key organisational processes. Environmental Kaizen, Environmental & emission monitoring for biodiesel and bio-ethanol plant, Coolant waste is again used through ETP plant & reuse the water for gardening purpose, Giving best supplier award to supplier which are supplying environment friendly products, Invest in recycling, Environmental & emission monitoring for biodiesel and bio-ethanol plant, Initiatives for energy conservation, focus on renewable energy, implemented kanban, lean manufacturing,

Corrective environmental protection avoids the negative effects of existing conditions (such as effluent treatment, catalytic converters, noise insulation). In the automotive industry, environmental protection starts when a new vehicle or production facility is planned and built, and continues through to the reprocessing and recycling of the materials previously installed or used.

**Findings (Addressing objective4)**

**Objective 4- To evaluates how companies are implementing green marketing practices.**

6.7 **Various green marketing practices implemented in automobile and ancillary industries in and around Pune.**

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”. (Ref. Table No. 5.4)

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)

In order to understand how much intense efforts have been taken to implement green marketing by these industries they have divided in four categories. Total 9 practices and four point scale is used, so maximum rating could be 9*4= 36. This maximum rating can be divided into four categories as per implementation of green marketing practice in their organisation. (Refer Table No. 5.4 a)

It can be observed that, fifty percent companies are fall under the category of scale range 19-27. It indicates that automobile companies are aware about green marketing and they have partially implemented these green marketing practices through various ways in their organisation.

Twenty six percent respondents expressed that they are fully aware of this concept and fully implemented green marketing practices in their organisation. Remaining twenty four percent respondents have not implemented but they are planning to implement green marketing practices.

India being a developing nation, 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.

Findings (Addressing objective 5)

Objective 5- To study impact of green marketing practices on market performance

6.7 Various green marketing practices implemented in automobile and ancillary industries in and around Pune.
6.8 Benefits/Advantages automobile and ancillary industry in Pune, perceive due to adoption of green marketing strategy.

Respondents were presented with seven common benefits resulting from green marketing strategy. “Positive company image/builds & enhance brand image”, “business sustainability”, “competitive advantage” and increased market share are the most significant benefits resulting from adoption of green marketing strategy. (Refer Table No.5.20)

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 practices implemented and market performance in terms of benefit is measured on the basis of weak, moderate, strong relationship as listed below (Refer Table No 5.30 to 5.35):

- There is a 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.
- There is a moderate relationship between developing environment friendly suppliers and greening supply chains, use of renewable resources (like bio-fuel, wind energy, solar energy etc), waste minimization and pollution prevention and competitive advantage.
- There is weak relationship between developing environment friendly products, eco-friendly modification in product design, waste minimization and pollution prevention and profitability.
- There is a weak relationship between “developing environment friendly products, eco-friendly modification in product design, “considering products complete life cycle from raw material extraction to disposal – which is less harmful to environment and helps to boost sales volume.
- There is a weak relationship between developing environment friendly products, eco-friendly modification in product design, and business sustainability.
6.9- 6.13 Other related Findings:

6.9 Various corporate social responsibility practices have been practiced in their organization.

Significant and most frequently initiated corporate social responsibility activities are “Product responsibility- It starts with developing vehicles that are fuel-efficient and safe for both the driver and other road users. It includes resource-friendly production processes, environmentally-friendly recycling concept”, “Sustainability management: Sustainability throughout the supply chain” (Ref Table No. 5.15)

6.10 Extent of green marketing contribution in sustainable development.

Out of seventy nine respondent survey majority respondents expressed that green marketing has 10 to 20 percent contribution in sustainable development, whereas few have expressed that green marketing has more than 30 percent contribution in sustainable development. (Ref Table No.5.16)

6.11 Besides cars/component/ end product, ecological solutions companies had set up for sustainable development inside the company

Respondents were presented with seven different ecological solutions, besides cars/component/ end product

Prominent responses accounted for 3R practices- Reduce, Reuse, And Recycle. Followed by responses accounted for waste management programmes and for designing sustainable products and services. Next to that responses accounted for employee awareness for environment friendly practices. So these are the most significant ecological solutions automobile and ancillary industry had explored. (Ref Table No. 5.18)

6.12 Opinion regarding following statements/ please evaluate your perception about green marketing practices in your automobile industry with following statements.

a. The Companies which are aware about CSR practices normally focus on Green marketing

Since standard deviations is less than mean, mean is a meaningful value, since skewness is negative value most of the data is piled on the right side of the X axis,
this further reaffirms the meaningfulness of mean. (Ref graph No.5.5 ) Hence it can be concluded that the respondents moderately agree that:

a) “Awareness of CSR leads to green marketing practices.”
b) “Companies which are practicing green marketing get more competitive advantage.”
c) “Green marketing practices have normally positive impact on profitability.”
d) “Integrating environment protection with economic development will bring out sustainable development”

6.13 Finding based on Hypotheses:

Hypothesis 1A and Hypothesis 1B are based on objective 2 and helped to investigate the researcher, does government regulation is significant reason for initiating and implementing green marketing practices.

The researcher is also examined whether Competitive forces increases/intensifies implementation of green marketing practices (Refer Table 5a and 5b)

**Hypothesis 1A:**
Government regulations have more influence on initiating and implementing green marketing practices.

**Hypothesis 1B:** Competitive forces increases/intensifies implementation of green marketing practices

The above hypotheses are accepted. Thus we deduct that Government regulations have more influence on initiating and implementing green marketing practices. And a Competitive force increases/intensifies implementation of green marketing practices.

**Hypothesis 2:** 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%. (Refer Table No.5.28 and 5.29)
In case of these statements, observed proportion is more than test proportion, hence it can be concluded that respondents 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 3:** There is positive 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 i.e. green marketing and market performance is measured with Bivariate Correlation on the basis of weak, moderate, strong relationship as listed below(Refer Table No.5.30 to 5.35):

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.


The above hypotheses were accepted. Thus we deduct that there is positive correlation between the extent of green marketing practices implementation and market performance.

Besides above researcher tried to seek information from government initiatives

**Directorate of Industries** –Govt. Of Maharashtra: Industrial officer: Office of the joint Director of Industries, Pune Region, Pune
Central Government Funding for Cluster program for environment friendly project cost from 10 Crore to 20 Crores. In that 20 to 30 units come together and forms a cluster.

Finance: 10% share is there of state government plus 80% share of central government plus 10% share of own contribution (Special project vehicle, Giving preference to environment friendly projects). Government is providing subsidy up to 25 lakhs.

Summary of Findings:

To summarise findings objectively, an increasing focus on environment friendly practices in order to reduce harmful impact on the natural environment has been gradually enhanced. However remarkable green marketing practices has observed from last decade.

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 1).

The most significant forces affecting initiating, implementing green marketing practices in automobile industry in and around Pune 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 2).

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 requires more budget” (Objective 3).

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” (Objective 4).

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 market performance indicators like, “increased market share”, “competitive advantage”.