ANALYSIS OF GREEN MARKETING TREND IN PASSENGER CAR SEGMENT OF INDIAN AUTOMOBILE INDUSTRY

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ABSTRACT

With the increasing number of sales in all the segments during last few years, the automobile industry of India has come out of the global recession with a firm commitment. The passenger car (PC) industry of India has been steadily growing on both domestic and export front by becoming greener. There are some hard pressing factors that lead the automobile industry of India into green. In this paper an attempt has been made to understand the factors responsible for the change in dynamics of the Indian automobile industry.

Key words: Green Marketing, Car.

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1. INTRODUCTION

The Indian passenger car (PC) industry is one of the biggest markets in the world. A data of export for the financial year 2014-2015 indicates growing by 15 % as compared to last year. India’s automobile Industry and commercial vehicles manufacturing industries left behind Brazil to become the sixth position in the world, with increasing annual production of more than 3.9 million units in 2011(Oica.net, bsmotoring.com). As an increase of 33.9% in 2010, India produced more than 3.7 million passenger vehicles, evolving as the second fastest growing market in passenger car industry in the world after China (Gulati and Nikhil, 2010). In Asia, India was fourth largest exporter in 2009 for PC, following Japan, South Korea and Thailand and left behind Thailand as fourth to become third largest exporter in year 2010. India holds a leading position as exporter of automobile at the same time the growth is expected to continue in the near future. Indian government as well as the automobile manufacturers is taking strong initiatives to make India a leader in export of automobile by 2020. (www.ibef.org). India is not just making
a stride in export but also becoming a significant market due to ever increasing domestic demand. This fact is clear from the number of players coming to India during last twenty years which has increased to more than 20 players. Prior to 1990, this number varied from 4-5 only (KPMG-2010). The objective of the paper is to identify the factors influencing green marketing strategies of automobile sector in India.

The present paper is divided into 6 sections. Section 2 introduces the automobile sector of India wherein use of car is increasing which is resulting into health issues. Section 3 discuss the green marketing strategy in automobile industry. Section 5 discuss the factors responsible for green marketing. Challenges of green marketing and how govt. policies can match the challenges and opportunities are being discussed in the section 6 and section 7 followed by section 8 which concludes the paper.

2. AUTOMOBILE INDUSTRY OF INDIA

The growth rate of Indian automobile sector is ever increasing and this pattern is directly related to the reforms undertaken by the Indian government. In the segment of two wheeler (below 200cc), India is one of the largest producer in the world. At the same time, during last fast five years the two wheeler segment has grown with the growth rate of 10%. In segment of tractors India stands on top in manufacturing. In the segment of commercial vehicles India stands fifth and in the segment of passenger vehicle India stands thirteenth. With all these achievements, Indian automobile sector also provides employment to more than 10 million people. According to a report, 13 new jobs are created with the production of just one commercial vehicle. In case of car being produced, five people get employment. For three wheelers, 4 jobs and in case of 2 wheelers one people get employment. If we look into the past of Indian Automobile industry, we can categorize the evolution into three phases. It began in the year of 1928 with the import of cars. Till 1955 we find this trend only. During 1955 to 1974, we find emergence of indigenous automobile manufacturer and industry's maturity towards self-reliance. From 1975, we find an era of structural adjustments and liberalization.

2.1. Urbanization and Increasing Trend of Mobility Dependence on Cars

There are many modes of mobility in India. These different modes create curiosity in the minds of researchers with regard to their impact on passenger vehicle ownership. Though there is no unanimity, but it has been found that the share of public transportation (excluding auto rickshaw and taxi services) has reduced where as urbanization and affluence resulted into boom of private vehicle ownership. India produced total all type motor vehicle in quarter-2 in 2014 and 2015 are 1912180 and 2049037 respectively.

![Figure1 Share of motor vehicle in Indian domestic market during year 2014-15 (source: http://www.siamindia.com/statistics)](http://www.siamindia.com/statistics)
While total passenger car production in quarter-2 in 2014 and 2015 are 1568598 and 1681599 respectively (Source-OICA correspondent’s survey)

In recent days, however, an alternate mobility revolution is taking shape with the advancement of Bus Rapid Transit System (BRTS), Metro Railways, Radio Taxies etc. But in coming days to make the inter system run smoothly, there is a need of planned investments by public and private sector. It is obvious that there are opportunities for auto players but at the same time we find certain challenges too. In almost all the major urban centers what we find is that the almost all the major urban centers have outgrown manifold in comparison to their planned size. The resultant is the scarcity of space for developing infrastructure for systems like BRTS. As for example, it seems almost impossible to create BRTS on the busy roads of Mumbai and Kolkata. Hence such system will be created outside the main town.

This kind of challenges asks for the development of integrated transport system. Nissan India’s senior official Sunil Rekhi says that automobile industry of India will functions feeder to the different modes of transportation. This notion is supported by the fact that even after Delhi Metro started functioning; the sale of PC has not slowed down. One probable reason is that the ownership of cars indicates the socio economic status of an individual.

2.2. Air Quality and Attached Health Issues

The fast pace of urbanization and simultaneous increase of vehicle fleet is becoming a challenge for us. Air quality around us is getting polluted everyday and reaching to alarming level. A report of CPCB Central Pollution Control Board, March 2010 says that 76%-90% of Carbon Monoxide is coming out of transport in Delhi where as 92 % of Monoxide in Mumbai is coming out of transport whereas in Mumbai this contribution is 60%. The deteriorating air quality has many health related consequences on us. Carbon Monoxide is directly responsible for diseases like cancer and reduced visibility. These pollutants also directly affect the respiratory and cardiovascular systems. Increased levels of particulate matters and sulphur dioxide are associated increased mortality, morbidity and impaired pulmonary function. These resultants of vehicular pollution are enforcing all stakeholders to serious note and come out with some sustainable solution. One solution among many is green marketing being adopted in automobile industry of India.

3. EXISTING DEVELOPMENT OF GREEN MARKETING STRATEGY IN INDIA

There is no doubt that in a price-conscious economy of India, the full fledged adoption of GMS in automobile industry will be slow until made mandatory by government. A good detail of adoption of GMS in the car segment of automobile industry has also been discussed in other research paper (Vatsa et al., 2015). This further indicates that all the major players of Indian automobile Industry have the potential to develop the green vehicles but in the absence of immediate merit, the firms are slow. In India, the firms are putting focus on dual–fuel technologies and not on electric vehicles. One probable reason is lack of infrastructure like lack of battery station and the charging stations.

However, with the fact that motorcycle constitutes the highest proportion of the two wheeler sales in India, launching of electric based motorcycle could have distinguishing impact on the market. All the major players of four-wheelers and commercial vehicles think of optimizing ongoing combustion engines before testing too radically with costly new technologies.

3.1. Integration of Green Marketing Strategy within Automotive Industry

The green marketing refers to the planning, development and promotion of products or services that satisfy the needs of consumers for quality, output, accessible prices and service, without however having any negative effect on the environment, with regard to the use of raw material, the consumption of energy etc. (Peattie, 1995; Ottman, 1992). According to Miller (2008), green businesses continue to evolve, and new companies are joining the trend. She adds that the green economy is valued at more than $209 billion annually and is expected to reach $1 trillion by 2020. Seeing these figures it seems interesting to focus on
the reasons explaining the behavioral change of those companies. The change is a deliberate choice of a company but sometimes it is not deliberate. Many manufacturers like Toyota, GM (General Motors), Ford and Nissan have tried to integrate the green marketing strategy within the PC segment. Toyota has come up with Prius and has already sold 200,000 units in 2010 (KPMG-2010). GM has come up with Volt, Ford has come up with Focus RV and Nissan has come up with Leaf. These companies are using Plug -in hybrid technologies. There are some other companies like Tesla which is offering battery based electric cars like Roadster too. According to a report of KPMG (KPMG, 2010) there is a wider consensus on hybrid technologies being the most favorite alternative fuel technologies. The next option is the battery electric power. But we find regional differences in the adoption of green technologies. In India, the integration of green marketing strategy in automobile sector started when the Supreme Court ordered to convert all city bus fleet, taxis and auto rickshaws in Delhi from liquid petrol to CNG in 1998. In 2004, Maruti came up with CNG based vehicles. The other technology that has been adopted in India is Electric /hybrid vehicles. Though account for less than 1 percent, Reva (Mahindra &Mahindra) has started making some inroads into the market. Apart from making environmentally friendly products, companies in India are also focusing on the environmental friendly efforts to lessen the impact on environment in the manufacturing phase and after end of life phase of the passenger cars. Adoption of green marketing strategy in PC Industry mainly based on following reasons.

4. GMS AS AN OPPORTUNITY
Keller (1987) and Shearer (1990) noticed that green marketing can be used as an opportunity to fulfill the objectives of the firms. As we find, society is becoming conscious with regard to environment, one can expect a boom in the demand of Green products. In order to answer to these new needs, marketing will have to become greener. With the change in trend, many firms see opportunities (Polonsky, 1994). A report of Queensland government in 2006 states that people in general want to do the right thing and hence there is need of marketer to create such type of environment. One cannot deny that the product and with everything equal like the price and the quality, once added with environmental benefit will have advantageous chances of acceptance by the customer (Polonsky, 1994).

4.1. GMS as a Social Responsibility
All the firms functioning in market place have one common objective i.e.to serve the society (Davis, 1992; Keller, 1987; Shearer, 1990). Even though there is stiff competition, research in this field indicate that firms are aware of their Corporate social responsibility (CSR) Glorieux-Boutonnat, 2004; Polonsky, 1994. The proactive nature of society on the matters relating to environment at the same time inclusion of CSR activities along with financial results while rating the firms in stock exchanges have made environment as an important factor (Glorieux-Boutonnat, 2004). Thinking for environment and society is not just the responsibility but also gives a good image to the firms. A small rumor about the firm can have wide impact and firm may lose its market share. Understanding the importance, firms have created environmental managers (Louppe, 2006).

4.2. Governmental/Judiciary Pressure
The governmental pressure is yet another factor contributing firms to become environmental friendly (NAAG, 1990). Prakash in 2002 found that companies are becoming green as a result of economic and non economic pressure that is coming from the customers, partners, regulators, civil society and other stake holders. In principal, all the elected governments have the moral responsibility to protect the customer's rights and well being and hence the government is always coming up with different kinds of regulations. Polanski (1994) believes that such regulations play a crucial role in company adopting green policies. Though the parliament passed the air prevention and control of pollution act long time back in 1981 but still in 2013 Environmental Performance index ranked India 155 out 178. Taking note of it Delhi government is introducing Odd-Even number system on alternate days for car commuters.
4.3. Competitive Environment
Once a company belonging to any sector starts adopting green marketing, other firms try to emulate the firms adopting green marketing as companies do not want other firms to let them competitive advantage. This behavior of firms is helpful in the propagation of green marketing. As for example, Maruti Suzuki was the first automobile company to offer its customers factory-fitted CNG cars. These cars run on a cleaner fuel with lower emissions. From 2006-2012, the Company sold over 3.5 lakh alternative fuel vehicles, off-setting 1,57,232 tonnes of CO2 per year. In 2015, almost all the major players in automobile players have improved the fuel efficiency and are providing the CNG fitted technology with their cars.

4.4. 3R (Reuse, Recycle& Reduce) Issues
The cost associated with the waste disposal is becoming an important area of concern for firms. Hence the firms have started to work towards reduction of material usage. (Azzone & Manzini, 1994). This is also true that change in the production process incurs heavy investments but researches have shown that in long run this may save the money. One report of Queensland Government (2006) has shown the saving of money in case of installing solar energy. Such initiatives not only save the money but also improve the customer’s relationship management and return on Investment (Miller, 2008). Certain initiatives like packaging reduction, cost savings with different measures like paperless work etc are always welcome in the firms (Peattie and Crane (2005).

5. SOME OTHER FACTORS

5.1. Increasing Affordability of Indian Consumer
Post liberalization, India economy has seen robust growth rate. This has resulted into higher purchasing power in the hand of large customer base. Due to this reason, the demand of passenger cars have increased and tends to keep increasing seeing the healthy state of economy (source: NCAER estimates). It is important to note the words of Michael Bonham, MD, Ford India. He said that with the change of demographics the sale of passenger cars will see the new heights. He gave the reason that new educated working class will come in to existence and will provide fertile environment for passenger cars. According to Organization International des constructers d’Automobiles commonly abbreviated OICA (English: International Organization of Motor Vehicle Manufactures) production of PC in India in second quarter of 2014 to second quarter of 2015 (shown in Fig. 1) has increased. While Fig. 2 shows sales statistics of PC in India during 2012-15.

![Passenger Car Production in India](image)

**Figure 1** Production of PC in India during quarter-2 of year 2014-15 (Source-OICA correspondent’s survey)
5.2. Substitute Fuels
Car with alternative fuels is yet another area which creates interest in mind of consumer and the producers. These days there are number of options available for alternate fuel vehicles as for example solar energy, propane, compressed natural gas, biodiesel, ethanol and hydrogen. With the use of alternate fuel vehicle we can expect a reduction in fuel costing, pollution minimization ultimately leading to India’s energy security. CNG based duel fuel PC has already worked well but yet infrastructural growth is needed. Electric cars like Reva has come into existence but yet need some time to consolidate its market.

6. CHALLENGES FOR GREEN MARKETING

6.1. Awareness Challenge
With the literacy rate of 74.04%, awareness of consumers in India will always be under scanner with regard to green products in the market. It is also possibly becoming a bigger issue because green products are new concepts for the market. Researches show that car buyers have a little information about the green vehicles as well as of ecological impacts of the road transport (Ben Lane & Stephen Potter, 2007). But with the long legacy of ayurveda, yoga, herbal products etc., Indian consumers can easily be informed and prepared green products.

6.2. Trustworthiness of Green product
Lack of one popular body to authenticate is yet another problem for green marketing. Though ISO14001 standardization is available across the different industries its implicative meaning among the consumers is meaning. So whenever any new product is getting placed in the market as green consumers are always in dilemma about its worthiness.

6.3. Long Waiting Time for ROI
With a relatively lesser consumer awareness and relatively lesser market size, the investor cannot expect for the return on investment in a short span of time. For the business organization the investing in green product will have to wait for long period before getting any monetary profit.

6.4. Heavy Investment
Green products need change in the technology, change in the process, huge investment in Research and development. All these factors make the green marketing an expensive initiative. This leads to another challenge of keeping the price at par with other products satisfying the same needs. A good example is that
of the price of e2o, a zero emission car by Mahindra, in Delhi is Rs.8,27,442 (Ex-Showroom) whereas a similar capacity car comes for Rs.2,00,000 (Ex Showroom).

7. HOW GOVT. POLICIES CAN MATCH THE CHALLENGES AND OPPORTUNITIES

- **Direct Government Action:** To solve the problem of heavy investment, long waiting time for ROI, The government of India can directly involve in the production and marketing of Green products. With the financial capabilities and goodness associated with the green products like that producing green transport, green lights, green infrastructure etc. governments can resolve the obstacles in the path of green marketing.

- **Control Instrument:** Government can use certain control instruments as for example by banning certain polluting products. As for example, the government has banned the use of Bharat Stage II vehicles on the road in India.

- **Economic Incentive:** To make the price of the green products competitive in the market, governments need to provide the economic incentives to the firms. It can be done through making the products tax free, it can be done by becoming the bulk buyer and then becoming the distributor of the products, it can be done by providing easy loans for long term with low or no interest rates etc.

8. CONCLUSION

The World Health Organization in 2014 said that 13 of the world’s 20 most polluted cities were in India, with Delhi being the worst among them. The Green National Tribunal and the Indian Judiciary is asking regularly from government for the measures for improving the air quality. A number of countries have tried to introduce the alternate number system for urban mobility. Taking lessons from it, Indian automobile industry has started turning towards green marketing. There are various other factors that is making green marketing as an attractive choice. Looking into the degradation of air quality, people now want to opt for vehicles that have eco friendly features and hence demand for green vehicles are increasing. At the same time, incentivizing green cars by government is providing opportunities for automobile players. Yet another advantage for automobile players is that by opting green marketing they are fulfilling their social responsibility. By opting green technologies the automobile manufacturers are getting benefited financially by opting the measures of reuse, recycle and reduce.

However, the progress made so far in green marketing is not satisfactory. It is not very clear as to whether the consumers are really willing to share the enhanced cost of greening the Indian automobile industry. Nor is it ascertained yet that automobile industry are keen to shoulder a part of the enhanced cost at the initial stages to add to their long term competitiveness.

REFERENCE


[3] Central Pollution Control Board, March 2010


