

Factors Influencing the Purchase Decision of Passenger Cars in Puduchery

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Abstract

The automobile industry is one of the fastest growing sectors of the world. India is the fourth largest exporter of passenger car and 6th largest producer in the world. A number of leading global automotive companies entered with the joint ventures and started producing variety of models with different features and providing value added services to attract the customers. Hence the customer's decision making becomes complicated. Therefore this study makes an attempt to identify the factors influencing the customers to purchase a passenger car. The secondary data was collected from 100 passenger car users of Puduchery with the help of a structured questionnaire. Various hypotheses were framed and tested. It is found that the customers were more focused on performance, technical features of the car during their purchase. Environmental factors were given least importance during their purchases. The major weakness of Indian policy frame work is interstate differences and there are no much publications to create awareness among the general public. Therefore it is essential to create awareness among the passenger car users regarding various environmental issues.

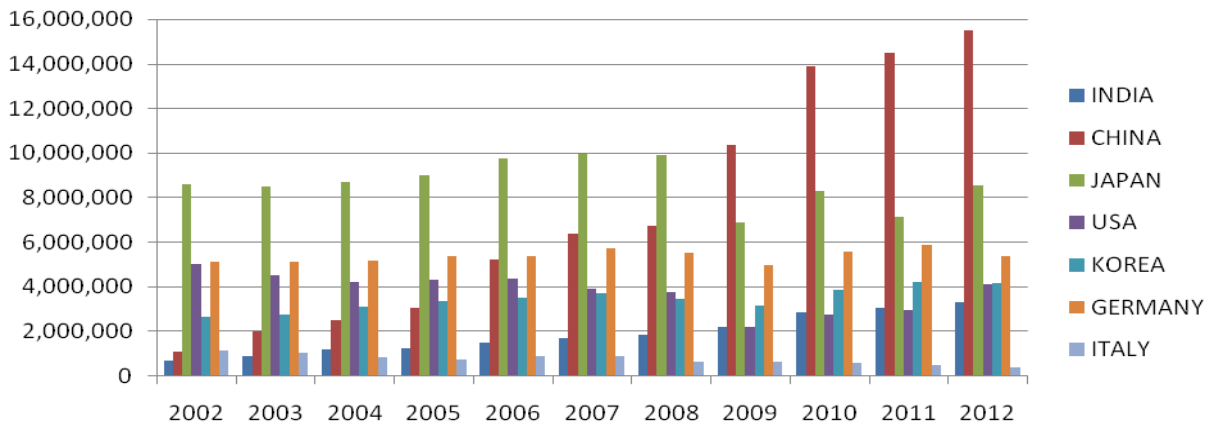
Keyword: Automobile Industry, Purchase decision, Passenger Car.

I Introduction

The automobile industry is one of the largest and fastest growing sectors of the world. It has created more than 9 million employment opportunities and indirectly around 50 million jobs in allied industries. At present, the top 10 automakers in the world roughly account for 80% of production, out of which 90% of them were sold in U.S.A. Passenger cars segment is highly competitive segment in automobile industry with the turnover of \$73 billion (OICA, 2013). Passenger car is defined as "motor vehicles with at least four wheels, used for the transport of passengers and comprising no more than 8 seats in addition to the driver's seat".

India is the fourth largest exporter of passenger car and 6th largest producer in the world. Japan stood first followed by Korea and Thailand. According to KPMG's prediction the auto production will increase by 20-30% in 2016. It is estimated that 20% fuel cell charged and 16% of electric car (battery operated) will be produced in 2025. The total productions of passenger car by the selected countries were given below in the chart for comparison purpose India also taken into consideration.

Chart – 1: Year wise World Passenger Car Production in Select Countries



Source of Data: OCIA 2012

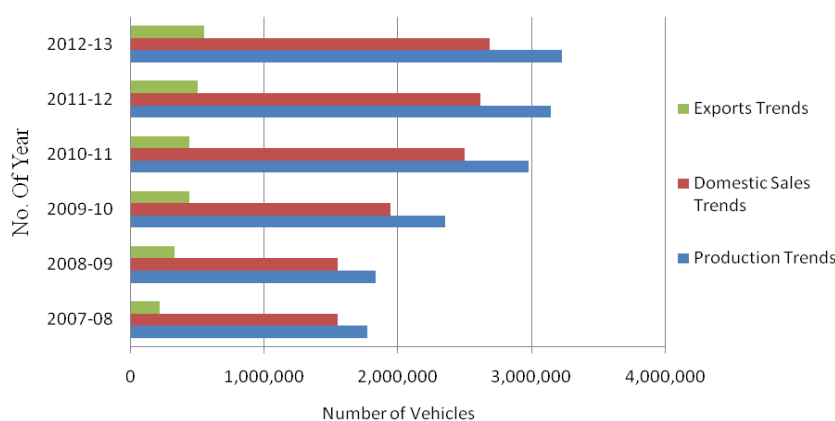
China was producing less than 2 million cars during 2002 but it has increased around 8 fold within this decade and leading the passenger car production. In other hand Japan’s passenger car production has come down. It is observed that India’s production also grown in these 10 years.

Indian Scenario

In 1940’s the indigenous pioneers Hindustan Motors and Premier Motors by Indian entrepreneurs were established. The liberalization in 1991 opened the doors for international automobile manufactures. A number of leading global automotive companies entered into joint ventures with the Indian manufacturers thus started the large scale production.

Maruti Udyog is the largest producer of the passenger cars in India, it has occupied the 4th place in Asia with 52% market share followed by Hyundai motors (19%) and Tata motors (16%). The passenger car production has increased in these 5 years along with the domestic sale but the export has not increased that high. (Chart – 2)

Chart – 2 Trend in India’s Passenger Cars Production, Sales and Export



Source: CMIE (Centre for Monitoring Indian Economy)

Variety of models, colours, features and value-added services were offered by the manufacturers to attract the customers. Hence the options are increasing in the market, thus the customers buying decision becomes more complicated. Therefore there is a need to understand the consumer’s behaviour during their purchase. From literature it is found that Customers consider various attributes to purchase a passenger car. This study makes an attempt to identify the factors influencing the customers to purchase a passenger car in Pondichery.

II Review of Literature

Table 1 the key factors influencing the purchase decision of a passenger car

Author(s)	Effect of the purchase decision intention
Ali Yousefi & Abdollah Hadi-Vencheh (2010)	Safety and economic factors influenced the purchase decision of a car.
Punitha Sinnappan & Azmawani AbdRahman (2011)	Price, designs, quality and performance were influencing the purchase decision.
Hossein Nezakati1, Kem Oon Kok & Omid Asgari (2011)	Price and quality will be concerned by the imported cars.
Ritsuko Ozaki & Katerina Sevastyanova (2011)	The financial position had strongly influenced on hybrid cars.
Dae-Ho Byun (2001)	Brand model, braking efficiency, repairing time, fitting are the major factors.
Hossein Mirzaei & Mehdi Ruzdar	Fuel consumption, quality, safety and size of the family had determined the purchase decision.
Olivier Mairesse, Cathy Macharis, Kenneth Lebeau & Laurence Turcksin (2012)	Vehicle weight, financial position and driving experience had influenced to buy a car.
Sjaanie Koppel , Judith Charlton, Brian Fildes & Michael Fitzharris (2008)	Safety and airbags had strongly influenced the purchase decision.

Auto industry plays a major role in the global environmental issues. Many people are aware of the world’s environmental problems. Various countries had organised campaigns to make people aware of this concept (L.K.Toke, R.C.Gupta, & Milind Dandekar, 2012).

Automobile manufacturing industry is responsible for 15 - 20% of global carbon dioxide emissions (OICA 2013). Another area of environmental concern is VOC emission during the use of the automobile are greater than those generated by any other life-cycle stage (Parul Gupt & G.S. Popli). India is rated as the 6th largest contributor of CO2 emissions. According to Japan Automobile Manufacturing Association, producers are taking care of only 20% of the pollution created by their business, the rest 80% becomes user's responsibility.

Nowadays car manufacturers had given proper attention on environmental aspects that consume less fuel and emit less pollute per kilometer travel. There is no much research work on the purchase decision of the passenger car in environmental perspective. Therefore this study includes the environmental factor along with the various factors already studied.

III Research Methodology

The purpose of this study is to identify the factors influencing the purchase decision of a four wheeler in Pondichery. The secondary data was collected from 100 passenger car users with the help of a structured questionnaire. Various hypotheses were framed and tested. The reliability test results and its acceptance level are given below (Table- 2).

Table 2 Reliability analysis

Factors	Number of Items	Cronbach's Alpha
Economic	8	.768
Technical	5	.740
Performance	6	.799
Safety	6	.830
Convenience	7	.832
Beauty	4	.762
Environmental	7	.830
Social	4	.792

The Hypothesis tested:

- H₀₁** There is no significant relationship between economic factor and purchase decision.
- H₀₂** There is no significant relationship between technical factor and purchase decision.
- H₀₃** There is no significant relationship between convenience and purchase decision.
- H₀₄** There is no significant relationship between performance factor and purchase decision.
- H₀₅** There is no significant relationship between safety and purchase decision.
- H₀₆** There is no significant relationship between beauty and purchase decision.
- H₀₇** There is no significant relationship between social factor and purchase decision.

H₀₈ There is no significant relationship between environmental factor and purchase decision.

IV Findings of the study

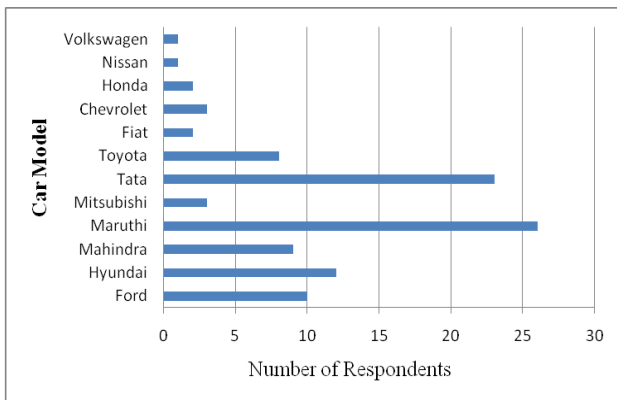
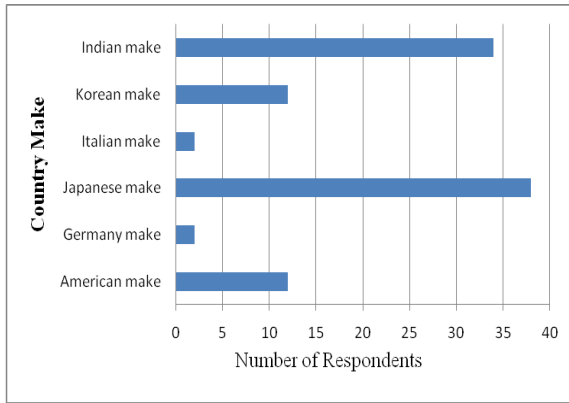
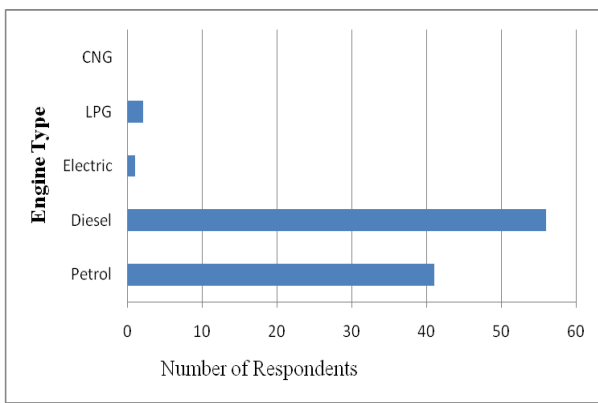
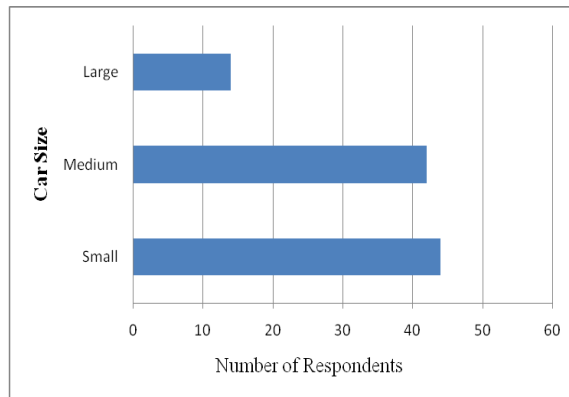
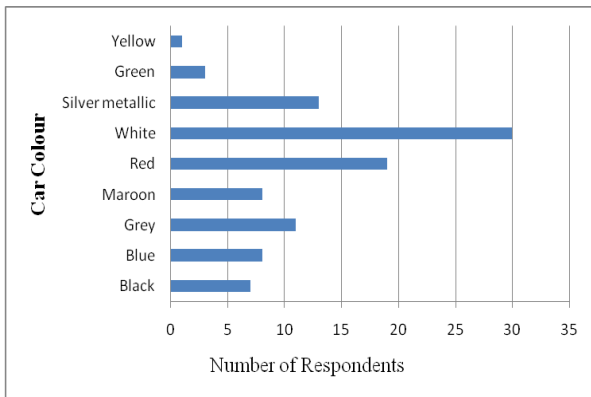
Out of 100 people surveyed 82% of them were male. 40% of them were undergraduates followed by postgraduates (34%) and 17% of them were Researchers. Regarding their occupation 23% of them were employees of private organisations, 20% of them were public servants and 25% have their own business. The age wise classification indicates that 80% of them belong to 20-40 years. Only 6% of them were above 50 years. Around 45% of them earn Rs. 20000-40000 per month and 20% of them earn more than Rs. 50000.

Table 3 Demographic profile of the Respondents

(N = 100)

Variable		No. of Respondent	Variable		No. of Respondent
Gender	Male	82	Below 20		1
	Female	18	21 to 30		41
Educational Qualification	Schooling	2	Age (Years)	31 to 40	41
	Under-Graduate	39		41 to 50	11
	Post-Graduate	34		51 and above	6
	M. Phil	12			19
	Doctorate	5			
Occupation	Others	8	Monthly income	Below 20,000	
	Government employee	20		20,001 to 30,000	24
	Private employee	23		30,001 to 40,000	19
	Professional	22		40,001 to 50,000	18
	Own Business	25		50,001 to 60,000	6
	Student	10		60,001 to 70,000	8
				70,001 and above	6

Chart -3: Car profile of the respondents



From the above chart- 3 it is found that 30% of respondents were preferred white coloured car. 26 % of the respondents had Maruti car followed by Tata (23%). Around 45% of the customers were using small sized car and 56% of diesel vehicles. Japan model were used more (38%) followed by Indian cars (34%).

Table - 4 Descriptive Analysis

Factors	Mean	Std. Deviation	Rank	Variables	Mean	Std. Deviation	Rank
Social	3.94	.835	1	Engine Features	4.15	.796	1
Beauty	3.92	.802	2	Engine Efficiency	4.14	.817	2
Performance	3.84	.750	3	Brand Image	4.14	1.015	3
Technical	3.80	.799	4	Comfort of driving	4.10	.969	4
Economic	3.65	.628	5	Accelerate	4.03	1.096	5
Convenience	3.58	.844	6	Owners Satisfaction	4.01	1.049	6
Environment	3.25	.943	7	Braking Efficiency	4.00	1.092	7
Safety	2.86	1.144	8	Color	3.98	1.005	8

Social factor, beauty, performance and technology of the vehicle were ranked high. But environment and safety were given least importance during the purchase of a passenger car. Further customers were looking for the engine features and its efficiency, brand image and comfort of driving. Colour of a vehicle does not influence.

Table - 5 Pearson Correlations

Correlation		Purchase Decision	Hypothesis	Accepted/ Rejected
Economic	Pearson Correlation	.057		
	Sig. (2-tailed)	.576	H1	Rejected
Technical	Pearson Correlation	.404**		
	Sig. (2-tailed)	.000	H2	Accepted
Performance	Pearson Correlation	.487**		
	Sig. (2-tailed)	.000	H3	Accepted
Safety	Pearson Correlation	.234*		
	Sig. (2-tailed)	.019	H4	Accepted
Convenience	Pearson Correlation	.324**		
	Sig. (2-tailed)	.001	H5	Accepted
Beauty	Pearson Correlation	.405**		
	Sig. (2-tailed)	.000	H6	Accepted
Environment	Pearson Correlation	.235*		
	Sig. (2-tailed)	.019	H7	Accepted
Social	Pearson Correlation	.348**		
	Sig. (2-tailed)	.000	H8	Accepted

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Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Except Economic factor all others such as technical, performance, safety, convenience, beauty, environment and social aspects had shown statistically a significant relationship (95%) with their purchase decision of a passenger car. (Table – 5) From the correlation values it is further found that environment (.235) and safety (.234) factors were given least importance during their purchase decision. They look at the performance and the technology used in the vehicle during their purchase.

The world environmental congress held in 1992 at Rio De Janeiro had a great impact not only on creating awareness about protecting the environment among the member countries of the UN but also translating this awareness into legislative actions in many countries, including India, to regulate the activities of the corporate for better environmental management (Bhabatosh Banerjee, 2001).

In 1996, the International Standards Organization launched ISO 14001 which outlined a standardized environmental management system that could be applied in any industry and in any location. Certified automobiles have the right to use the ISO 14001 standards, which help auto makers minimize how their operations and products negatively affect the environment (cause adverse changes to air, water, or land), comply with applicable laws, regulations, and other environmental requirements. Around 3 lakh firms were certified ISO 14001 internationally. China had 92,000 followed by Japan (28000). But in the other hand USA has 6000 and India has certified 4300.

In United States, CAFE (Corporate Average Fuel Economy) standard, in Europe Euro standards were adopted and India follows Bharat standards. Nowadays car manufacturers had given proper attention on environmental aspects that consume less fuel and emit less pollution. But customers are not fully aware of these standards. Therefore it is essential to create awareness on environmental issues and eco friendly driving behavior which means, simple driving practices like: driving at a constant speed, switching off the engine wherever it is possible, avoid unnecessary braking will lead to eco-driving behavior among the passenger car users to save the Earth.

V Conclusion

It is concluded that the customers were more focused more on performance than Environmental factors and safety. Therefore it is essential to create awareness among the customers regarding various environmental issues by organizing seminars and providing information through websites to the passenger car users. Governments, nongovernmental organizations and private corporations have been adopting various strategies to assure the level of anti-environmental practices in the areas of waste disposal, air emission, use of natural resources, etc.

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