

PGDM, 2019-21
Research Methodology
DM-303
Trimester – III, End-Term Examination: June 2020

Time allowed: 1 Hrs 30 Min

Roll No: _____

Max Marks: 30

Purchase of B Segment Cars in India

The Indian automobile market is expected to grow at a compound annual growth rate (CAGR) of 9.5 percent amounting to ~ 13008 million by 2010. The contribution of the commercial vehicle segment has been tremendous to the growth of the automobile industry.

The contribution of foreign companies to the automobile industry in India is in terms of technology transfers, joint ventures, strategic alliance and financial collaborations. The purchase of motorcycles and cars in rural as well as urban areas is increasing. In India, the sales figure of major car manufacturers was 67.4 lakh units for the year ending March 2007, whereas that of export of cars was 39,295 units.

It is known that the B segment forms the largest part of the consumer vehicle market in India. With the boom in the Indian economy post 1990s, a large number of consumers have graduated from two-wheelers to cars, thus leading to a boom in the B-segment market. The B-segment car market constitutes the likes of Maruti 800, Alto, Wagon R, Hyundai Santro, Tata Indica and Fiat Palio. Now with the increasing income levels, consumers are opting for more than one car per family, with the second car generally belonging to the B-segment.

A study was carried out to understand what influences the purchase of B-segment cars in India. An exploratory research was conducted in the form of personal unstructured interviews with B-segment car users. A lot of literature was also reviewed on the subject. Based on the insight obtained from the exploratory research, a number of variables were identified that influence consumers' buying behaviour in B-segm cars. Using the information identified, a questionnaire was prepared. A part of the questionnaire seeking information on the importance the consumers attach to various attributes is reproduced below. A sample of 100 current car owners of B-segment cars in the NCR region was contacted for filling up the questionnaires. Only 75 responded to the survey. The question seeking information on the criterion for the purchase of B-segment car was phrased as:

How important according to you are the following criteria in the purchase of B-segment cars? Please rate them on a 7-point scale (where 1 = extremely important, 2 = very important, 3 = ' important, 4 = neither

important nor unimportant, 5 = unimportant, 6 = very unimportant, 7 = extremely unimportant) by putting a tick (.i) at the appropriate place.

Criteria	Extremely Important	Very Important	Important	Neither Important	Unimportant	Very Unimportant	Extremely Unimportant
(a) Price on road (X ₁)							
(b) Brand (X ₂)							
(c) Engine capacity							
(d) Looks and design (exterior and interior) (X ₄)							
(e) Fuel efficiency (X ₅)							
(f) Discount Schemes (X ₆)							
(g) Resale Value (X ₇)							
(h) After sale Service (X ₈)							
(i) Running and Maintenance Cost (X ₉)							
(j) Convenience features (Power Steering, Power Windows, etc) (X ₁₀)							
(k) Purpose of Purchase (X ₁₁)							
(l) Performance Information available (X ₁₂)							
(m) Driving Pleasure (X ₁₃)							
(n) Car Image and Positioning (X ₁₄)							
(o) Economical (X ₁₅)							
(p) Colours Available (X ₁₆)							
(q) Advertising and Marketing (X ₁₇)							
(r) Safety (X ₁₈)							

The data pertaining to the 75 respondents is given in **Cars.sav** file

Do a Factor Analysis on the data for buyers of B-segment cars that has been provided? Save the Factor Scores for all respondents. **(Each question carries equal marks)**

- a. Identify the main factors that are important to buyers of B-segment cars. Give appropriate names to the factors. Justify the factors identified by the manifests loading on each of them. [CILO 1]
- b. Did you find some questions which were cross-loading on multiple factors? If so, which and why? Would it make sense to rerun the Factor Analysis after dropping the cross-loading manifest variables? [CILO 1]
- c. As the CEO of a car manufacturer, what strategy would you recommend for your company to boost sales of your B-segment cars. [CILO 2]
- d. Analyse the Factor Scores and use them to justify your recommendations in part (c) above. What do the factor scores represent? [CILO 3]
- e. Draw the Factor Analysis model with appropriate factors and manifest loadings. [CILO 3]