# Study of Factors for brand positioning of automotive lubricant for four wheeler segment customers

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## ABSTRACT

*This research paper focuses on the need of brand positioning for PSUs lubricant in Indian market. This study represents an approach of factor analysis to determine the effect of brand positioning of lubricant on consumer perception. An empirical study has been conducted in Delhi region to find out the perceptions of consumers towards the PSUs lubricants. Survey has been conducted with the help of structured questionnaire to determine the different attributes responsible for brand positioning lubricant oil. Factor analysis has been done to reduce the number of factors and identifying only the important factors for brand positioning of automotive lubricant of PSUs for four wheeler segments. Further, reliability test has been conducted to test the reliability of the important factors.*

***Key words:*** *PSUs, Perception, Reliability, Brand Positioning.*

## INTRODUCTION

The demand of lubricant in India is third largest in the world after USA and China. In the decade of 1990s the Indian lubricant market was dominated by PSUs (IOCL, BPCL and HPCL). India produce around 8 to 10 percent of the total global lubricant production. The demand of lubricant in India is around 9.6% of the total global lubricant demand. The Indian lubricant market changed after 1992 when liberalization took place. After liberalization too many private lubricant manufacturers enter into the Indian market. Later on Indian government dismantled the administered pricing mechanism and free pricing policy allowed in the Indian lubricant market. The deregulation policy of Indian government encouraged so many foreign lubricant manufacturers expand their business in India. Entry of multinational companies imposed too much competition between PSUs and Private players which benefitted the end consumers. Lubricant oil is very essential for automobile sector. Indian Oil SERVO continues to be the dominant player in the Indian lubricant sector backed by cutting edge product development, high quality customization and extensive blending and distribution network. Mak lubricant of Bharat Petroleum offers a full range of Automotive Engine Oils, Gear Oils, Transmission oils, Specialty Oils and Greases. HP Lubes is an integral part of Hindustan Petroleum Corporation Limited, one of India's frontline oil majors, committed to providing energy and fueling growth in every significant area of development.

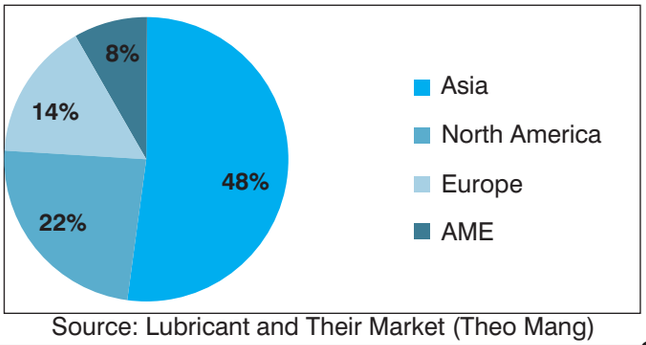
Before the liberalization of the Indian economy, the public sector oil companies dominated the Indian lubricant industry with a market share of 90 per cent. The lubricants produced were simple blends based on low and medium level technologies. More sophisticated lubricants were imported and these accounted for a relatively small market share.

There are total 1380 lubricant manufacturer world wide. Earlier the percentage share of lubricant was very less for oil companies. But now a day's lubricant business play a crucial role for oil companies to increase their profits. Out of 1380 around 180 oil companies are manufacturing lubricants. There are 1200 lubricant companies where core business are is only manufacturing lubricants. These independent lubricants manufacturer generally purchase the raw materials from the open market. The lubricant manufacturer spent a very small amount of money on their research and development.

There are some important facts of the future of lubricants market.

### Types of Lubricant

Lubricants are mainly classified into two parts: Automotive lubricants and Industrial lubricants. Industrial lubricants are further classified into two parts first is Industrial specialties and second one is industrial oils.




Source: Lubricant and Their Market (Theo Mang)

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Presented and Expected Consumption of Lubricant 2004 - 2020 in Kb)

| Year | Consumption (in KB) |
|---|---|
| 2004 | 265 |
| 2005 | 267 |
| 2006 | 272 |
| 2007 | 281 |
| 2008 | 264 |
| 2009 | 250 |
| 2010 | 270 |
| 2011 | 273 |
| 2015 | 282 |
| 2020 | 284 |

## LITERATURE REVIEW

A comprehensive literature review has been conducted to determine the different variables for brand positioning of automotive lubricant.

According to Philip Kotler brand positioning is defined as the act of designing the company's offer so that it occupies a distinct and valued place in the mind of the target customers.

According to David Aaker brand positioning is defined as the part of brand identity and proposition of value that is communicated to the target customers.

Bovee et al defined brand positioning as the 'Process of creating a mental impressed in the mind of the consumers in comparison to the competitors.

The brand positioning can be mainly determine to answer the following four questions:

1 Why (What extra benefits consumers will get in the new brand)

2 When (Determine the correct opportunity time for the new brand).

3 For whom (Identify the target customers).

4 Against whom (Identifying the competitors in the market).

A literature review has been done to identified that whether brand positioning is consumer perspective or a marketer perspective (Kalafatis and Blankson 2004). From the company perspective point of view brand positioning is the process of identifying the target consumers and create a positive perception of the brand in the mind of the consumers. The company desire is to create an association in the mind of the consumers. From consumers perspective point of view brand positioning is a process that how consumers perceive to a particular brand. The brand positioning is a complex combination of feelings, thoughts, Impressions and beliefs that consumers map in their mind (Harley, Kerin and Ellson 2004). According to Aaker, Myers and Batra (1992) perceived positioning is a set of associations that a consumer feels about the brand. The associations may be represents by physical attributes of the product, occasional use of the product, user image etc. A brand positioning a concept of relativity in consumers mind that target consumers assess that how a particular brand is similar or different from the other competitors. Imagine that every consumer have a mental map of the different category of the products. The location of a particular brand in the mental map of the consumers relative to the competitors represents the position of that particular brand and the position of all the other brands in the mental map of the consumers represents the associations of the brand to the consumers. The perceived positioning is dependent on the perception of each and individual target consumers because consumers interpret same information in a different way. The association of consumers to a brand can also be effected by some external factors are media, promotional activity, competitors, word of mouth etc. Brand positioning is based on the perceptions of the consumers.

Relationship between Intended Brand Positioning, Actual Brand Positioning and Perceived Brand Positioning

## RESEARCH OBJECTIVE

To determine the important factors for brand positioning of automotive lubricant oil in India for four wheeler segment consumers.

## RESEARCH METHODOLOGY

### Research Design

The research is exploratory cum descriptive in nature. The method of research used is that of quantitative analysis through results obtained from questionnaires.

### Sources of Data collection

**Primary data:**

Primary data of Four wheeler segment consumers has been divided into the following strata

i) Non commercial four wheeler (petrol)

ii) Non commercial four wheeler (diesel)

iii) commercial four wheeler (petrol)

iv) commercial four wheeler (diesel)

The above strata has been further classified using following demographic variables:

i) Income

ii) Age

iii) Gender

### Sampling

Sample size = 400

### Area of Sampling

The sample has been collected from the Delhi region. Sample size has been divided into the ratio of commercial and non commercial four wheeler vehicles which are registered in Delhi. Four wheelers are further classified on the basis of the ratio of petrol and diesel four wheeler vehicles.

## DATA ANALYSIS AND FINDING

Following variables of brand positioning of automotive lubricant has been identify by pilot survey:

Packaging, Advertising, Purchasing, Availability, Superiority, Promotion, Credibility, Innovativeness, Reliability, Reputation, Commitment, Quality, Experience, Extra Benefits, Longitivity

### Factor Analysis

Factor analysis has been used to determine the important factors:

The Kaiser Meyer Olkin's measuring of sampling adequacy and Bertlett's Test of Spherity.

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .702 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2090.789 |
| | df | 120 |
| | Sig. | .000 |

The value of Kaiser Meyer Olkin is greater than 0.5 i.e. ( 0.702 ) so it is acceptable.

The significance level of Barlett's Test is .000. It means that R- matrix is not an identical matrix and there are some relationships between different variables.

### Factor Extraction

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.015 | 18.845 | 18.845 | 3.015 | 18.845 | 18.845 | 2.971 | 18.571 | 18.571 |
| 2 | 2.618 | 16.363 | 35.208 | 2.618 | 16.363 | 35.208 | 2.408 | 15.048 | 33.619 |
| 3 | 1.956 | 12.226 | 47.434 | 1.956 | 12.226 | 47.434 | 2.110 | 13.186 | 46.804 |
| 4 | 1.604 | 10.024 | 57.458 | 1.604 | 10.024 | 57.458 | 1.655 | 10.346 | 57.151 |
| 5 | 1.177 | 7.358 | 64.816 | 1.177 | 7.358 | 64.816 | 1.226 | 7.665 | 64.816 |
| 6 | .947 | 5.920 | 70.736 | | | | | | |
| 7 | .885 | 5.530 | 76.266 | | | | | | |
| 8 | .730 | 4.561 | 80.828 | | | | | | |
| 9 | .611 | 3.817 | 84.645 | | | | | | |
| 10 | .504 | 3.152 | 87.797 | | | | | | |
| 11 | .472 | 2.949 | 90.745 | | | | | | |
| 12 | .436 | 2.722 | 93.467 | | | | | | |
| 13 | .346 | 2.163 | 95.630 | | | | | | |
| 14 | .259 | 1.620 | 97.250 | | | | | | |
| 15 | .234 | 1.460 | 98.710 | | | | | | |
| 16 | .206 | 1.290 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

The above table gives the list of Eigen values associated with each linear component (factor) before extraction, after extraction and after rotation. SPSS has identified 16 linear components within the data set The Eigen values associated with each factor represent the variance explained by that particular linear component and SPSS also displays the Eigen values in terms of the percentage of variance explained so as to factor explained (so, factor 1 explains 18.845 % of total variance). It should be clear that the first few factors explain relatively large amount of variance whereas subsequent factors explain only small amount of variance. SPSS then extracts all factors with Eigen value greater than 1, which leaves us with 5 factors. The Eigen values associated with these factors are again displayed in the columns labeled extraction sum squared loadings. The values in this part of the table are the same as the value before extraction, except that the values for the discarded factors are ignored. In the final part of the table, the Eigen values of the factors after rotation are displayed. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of the five factors is equalized.

## Component Matrix

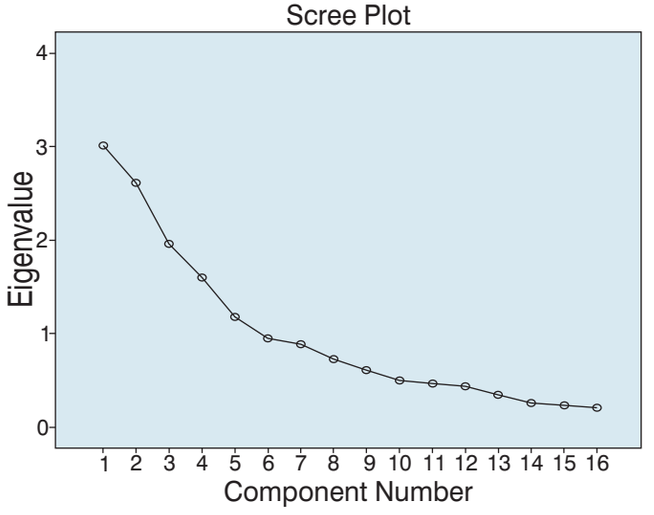
**Component Matrix[a]**

| | Component | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Price | .154 | .062 | .164 | .762 | .115 |
| Packaging | .157 | .504 | .616 | -.289 | -.010 |
| Advertising | -.022 | .472 | .599 | -.175 | .025 |
| Purchasing | .088 | -.122 | .442 | .531 | .073 |
| Availability | .035 | .209 | .297 | .650 | .081 |
| Superiority | .278 | .687 | -.478 | .060 | -.108 |
| Promotion | .078 | .506 | .574 | -.258 | -.023 |
| Credibility | .798 | -.186 | .035 | -.076 | .182 |
| Innovativeness | .814 | -.362 | .040 | -.115 | -.018 |
| Reliability | .225 | .718 | -.430 | .178 | -.108 |
| Reputation | .797 | -.149 | -.033 | .063 | -.185 |
| Commitment | .880 | -.114 | .045 | -.044 | .081 |
| Quality | .324 | .690 | -.202 | -.042 | -.113 |
| Experience | -.065 | .383 | -.195 | .127 | .537 |
| Extra Benefits | .073 | -.054 | .093 | -.216 | .623 |
| Longitivity | .006 | .094 | -.266 | -.115 | .603 |

Extraction Method: Principal Component Analysis.
a.5 components extracted.

This matrix contains the loadings of each variable onto each factor. By default SPSS displays all loadings; however we requested that all the loadings less than 0.5 be suppressed in the output. At this stage SPSS has extracted seven factors. Factor analysis is an exploratory tool and so it should be used to guide the researcher to make various decisions.

## Scree Plot




The scree plot shows the point of inflexion on the curve. The curve begins to tail off after five factors. Therefore it is justify retaining five factors.

The different factors after factor analysis are as follows:

| Factors | Variables | Correlation Coefficient | Factor Name | Cronbach a |
|---|---|---|---|---|
| Factor 1 | Credibility | 0.798 | Product Trustworthiness | 0.874 |
| | Reputation | 0.797 | | |
| | Innovativeness | 0.814 | | |
| | Commitment | 0.880 | | |
| Factor 2 | Quality | 0.690 | Product Quality | 0.830 |
| | Superiority | 0.687 | | |
| | Reliability | 0.718 | | |
| Factor 3 | Advertising | 0.599 | Marketing Strategy | 0.760 |
| | Packaging | 0.616 | | |
| | Promotion | 0.574 | | |
| Factor 4 | Price | 0.762 | Accessibility | 0.673 |
| | Availability | 0.650 | | |
| | Purchasing Location | 0.531 | | |
| Factor 5 | Experience | 0.537 | Extra Advantages | 0.638 |
| | Extra Benefits | 0.623 | | |
| | Longitivity | 0.603 | | |

Researcher consider only those factors whose Cron Bach Alpha is greater than 0.60. The Cron Bach Alpha of Factor Extra Advantages is 0.238 so researcher do not consider this factor.

## CONCLUSION

In this research, there are four factors identified by researchers. First factor is product trustworthiness which is a combination of variables credibility, reputation, innovativeness and commitment. Second factor is product quality which is a combination of variables quality, superiority and reliability. Third factor is marketing strategy which is a combination of variables advertising, packaging and promotion. Fourth factor is accessibility which is a combination of variables price, availability and purchasing.

All these factors have been found to be key for brand positioning of automotive lubricant for four wheeler segment customers.

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