

# Attribute Preference Hierarchy Based Segments in the Indian Car Tyre Replacement Market – An Exploratory Study

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## Abstract

**Purpose :** This study was undertaken during February – June 2019 to understand the attributes car owners considered while making a tyre purchase decision, and to understand if any meaningful customer segments emerged on the basis of their attribute preference hierarchy. Review of literature did not find much of note on this topic. This paper filled this void in research. This paper provided usable insights for the \$ 8.5 billion Indian tyre industry.

**Approach :** Exploratory personal interviews of car owners were conducted in the city of Bangalore to arrive at a consideration set of seven unique attributes. These attributes were then tested for their relative importance by conducting a mix of personal and online surveys on a pan India level. A total of 112 responses were analyzed to arrive at the top five attributes. As a next step, the *k*-means clustering technique was applied to the 112 responses to arrive at meaningful customer segments.

**Findings :** The top five attributes which emerged as critical to the tyre purchase decision were – quality, price, brand, safety, and reliability. Four unique segments emerged with unique attribute preferences. The first segment considered quality and price as the top attributes and no significant importance was attached to the other attributes. The second segment only looked at brand and quality while deciding on the purchase. The third segment looked at safety along with brand and price as the top decision attributes. The fourth segment was very peculiar as it assigned equal importance to all five attributes.

**Keywords :** consumer behavior, tyre purchase attributes, cluster analysis, Indian tyre market

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The Indian tyre industry contributes to ~3% of the manufacturing GDP of India and ~0.5% of the total GDP of India. This clearly indicates the importance of this industry, not only to the manufacturing sector, but also to the Indian economy as a whole. Driven by strong domestic demand, the Indian tyre industry grew from \$ 4.3 billion in 2011 to \$ 8.5 billion in 2018. Notably, ~95% of this demand came from the domestic markets. Tyre demand is expected to further grow by 7–9 % over the next 5 years (FY2019–23) largely led by the growth in the automotive industry. The total vehicle population in India is expected to surge from its current level of 162 million in April 2018 to 404 million by 2028. The current penetration level in India of about 19 cars per 1000 people leaves a significant head space for growth, which also indicates a significant headroom for growth for the Indian tyre industry.

The tyre market is closely contested with three players – MRF, Apollo Tyres, and JK Tyres accounting for ~60% of the total market share by revenue. In terms of end-products, the tyre demand can be segregated as shown in Table 1 .

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**Table 1. Tyre Demand Sources (By End-Products)**

Tyre Categories	% Share by Volume	% Share by Revenue
Truck & Bus Tyres	13%	54%
Passenger Car Tyres	23%	14%
Two/ Three Wheeler Tyres	54%	13%
Light Commercial Vehicle Tyres	5%	9%
Tractors & Farm Equipment Tyres	4%	8%
Industrial, Construction, & Aircraft Tyres	1%	2%

**Table 2. Tyre Demand Sources (By Market)**

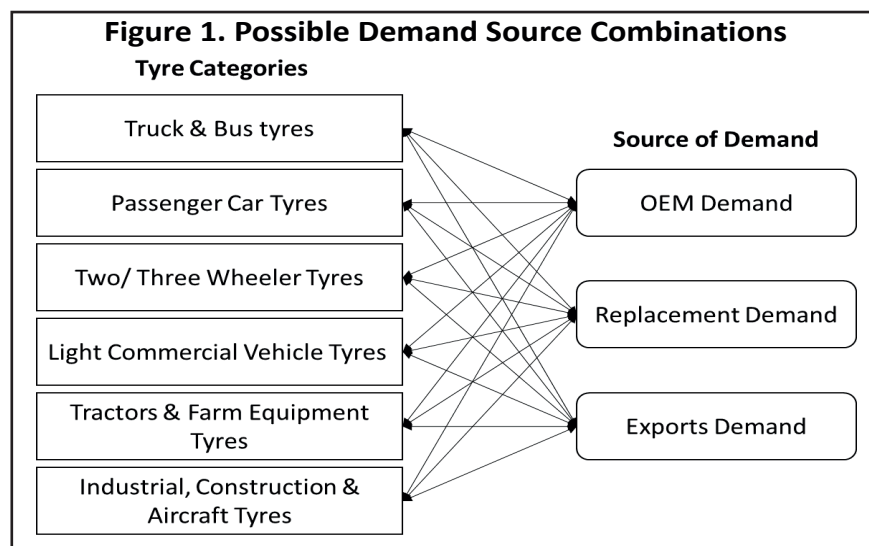
Source of Demand	% Share	Description
OEM (Original Equipment Manufacturer)	30%	- Arises from the tyre fitment which happens during new vehicle assembly
Exports		- Arises from the export of tyres
Replacement	70%	- Arises out of tyre replacements which happen over the life cycle of the vehicle

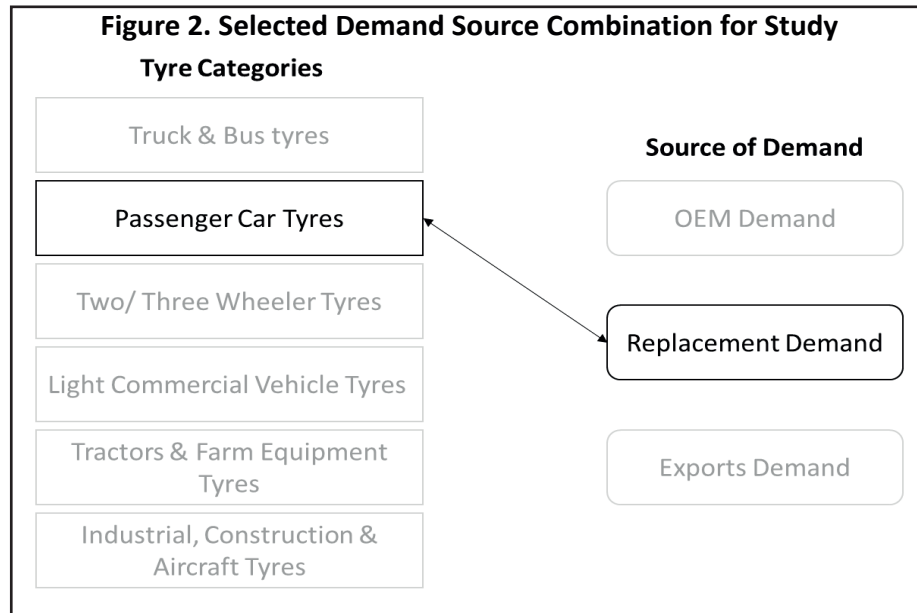
The tyre market is dominated by truck & bus (T&B) tyres with 54% of the total sales coming from T&B tyres. Passenger car tyres contribute 23% by volume and 14% by revenue of the total Indian tyre market. In terms of market, the tyre demand has three sources as shown in Table 2.

The Indian tyre market is largely replacement – demand driven with revenue from replacements contributing to about 70% of the total revenue.

## Scope of Research

This research paper intends to understand the key tyre attributes that buyers consider while replacing their tyres. The complexity in terms of different tyre categories and sources of demand present distinct combinations worth studying. Possible combinations are as depicted in Figure 1.





Each combination has its own unique purchase ecosystem. For example, a combination such as OEM demand as the source and T&B tyres as a category will require a very different research design as compared to another combination such as replacement demand for two-wheeler tyres. With this in mind, I decided to focus this study on the combination of replacement demand as the demand source and passenger car tyres as the category. The high volume share that this combination occupies in the overall market is the key criteria for the choice of this combination as shown in Figure 2.

In subsequent sections of this paper, we will try to understand the attributes that passenger car owners consider while making a tyre replacement purchase decision. We also explore if any meaningful customer clusters emerge on the basis of the attribute preferences of car tyre buyers.

## Literature Review

Due to the lack of sizeable consumer behaviour research specifically for tyres as a product category, this literature review derives a significant portion of its insights from consumer durables as a larger '*parent*' category. The insights will, however, be selectively transferrable in nature when we talk specifically for car tyres as a category.

**(1) Review of Consumer Behaviour Research in Consumer Durables :** Consumer durable goods such as automobiles, televisions, refrigerators, laptops, washing machines, and so on have become standard products for all households. This high degree of penetration means that most of the demand of consumer durables is driven by replacement demand. This is true in case of the tyre industry as well where 70% of the total demand comes from the replacement market.

With respect to consumer durable product categories, traditional research is focused around home appliances and consumer electronics on the following topics : consumers looking for style and looks and not necessarily a longer lifespan of products by Lund (1977), impact of product features on purchase decisions by Katona (1960), impact of price on purchase intent by Bayus (1988), repairability as having a telling impact on replacement demand by Sabbaghi, Esmaeilian, Cade, Wiens, and Behdad (2016). Soni, Lohani, and Sagar (2010) studied the factors which affect consumer purchase decisions and their respective impacts on the final decision for laptops as

a category. Kumar and Menon (2017) found that loyalty to a brand is the key factor driving purchase decisions for smartphones.

However, there is very little of note on the replacement behaviour, with the exception of a few studies focusing on segmentation basis of consumers' disposition behaviours. Most studies have evaluated the consumer behaviour after the replacement decision has been made, and hence, there is a dearth of research focusing on understanding consumers' replacement purchase behaviours per se.

**(2) Review of Research on Product Attributes Consideration Set :** The research domain is filled with study of product attributes which affect consumer purchase decisions for various product categories. A study by Jain and Sharma (2013) highlighted five consumer personas on the basis their decision-making patterns : Quality conscious consumers, brand-conscious consumers, hedonistic consumers, price-conscious consumers, and confused by over-choice consumers. A study by Pasricha, Jain, and Singh (2020) evaluated factors which influenced purchase decisions of millennials towards luxury fashion goods. Agarwal, Sahoo, and Agarwal (2019) studied purchase behaviour for mobile phones and found technology-driven features as the key component of consumer decision making.

From a consumer-preferred product attributes perspective, 'quality' as a decision attribute was decoded by Brucks, Zeithaml, and Naylor (2000). The study collected data on more than 100 attributes for sewing machine as a product category. On the basis of triangulation of multiple researches, they came up with six product attributes to study consumer behaviour with respect to : (a) ease of use, (b) versatility, (c) durability, (d) serviceability, (e) performance, and (f) prestige. Similarly, Garvin (1987) studied consumer behaviour around the following attributes: (a) conformance, (b) features, (c) durability, (d) serviceability, (e) performance and reliability, (f) perceived quality (image) and aesthetics. The study by Boulding, Kalra, Staelin, and Zeithaml (1993) suggested that different consumer segments might have a different attribute preference hierarchy. Prakash and Pathak (2014) identified price, brand name, quality, availability, and packaging as the key factors affecting purchase decisions of rural customers. A study by Fawi and Abdalla (2013) found that quality was the main factor followed by price contributing to the purchase decision for dairy products. Amongst other factors, Mohamed, Medina, and Romo (2018) studied the impact of packaging on consumers' purchase decision for cosmetics.

Another well-researched attribute linkage is between 'brand' and 'quality.' Azeema, Jayaraman, and Kiumarsi (2016) found that brand ceased to be a factor for perfumes as long as the quality of the perfume was well maintained. Gardner (1971) and others studies found a brand to be a stronger cue for quality than price. Few Indian focused studies have talked about how a brand mediates the perception around marketing mix elements (Singh, 2017) and impact of pricing on target segments for consumer durables (Eswari & Subramanian, 2017).

There are other studies around the impact of overall economic development of a country, quality of life, and peer influence on driving significant changes in the buying behaviour of individuals for automotive products (Sudhahar & Venkatapathy, 2005).

**(3) Review of Literature Around Tyres :** While there is no paucity on research around consumer durables and purchase decision attributes, there is very little related literature available around purchase decision attributes for tyres as a product category. The situation is even more so grim when we look at tyres from an Indian market perspective. Prabakaran and Panchanatham (2013) studied the awareness and power of Bridgestone brand in the Indian union territory of Puducherry. They found a positive association between the age of the brand and its brand value. Other studies on tyres include research around the prevalence of tubeless and radial tyres in India by Verma (2007) and Yadav and Pathak (2013). Nothing else of much note could be found in the research domain related to purchase decision attributes or customer segmentation for the tyre industry.

## Need for this Research

There is no dearth of research in the field of consumer purchase behaviour for consumer durable goods. However, 'tyre' as a standalone category is grossly under served. The lack of citeable current literature on drivers of tyre replacement demand from a consumer behaviour point of view forms the basic premise for this research. This research will be a first step in bridging a wide gap in the current research domain around the understanding of consumer purchase behaviour and decision making with respect to replacement of passenger car tyres. With this understanding, I go about framing the key research questions in the next section.

## Key Research Questions

This study intends to understand key attributes which buyers look at while replacing their car tyres. The study also intends to identify significant buyer value-based segments for car tyre buyers which can help the tyre marketers redefine their targeting and positioning strategy. With this objective, the research questions are broken down as follows :

**Q1 :** What are the top attributes which buyers consider while replacing their car tyres ?

**Q2 :** What are the unique & meaningful customer segments that emerge on the basis of this attribute preference hierarchy ?

**Q3 :** What are the other important ecosystem players who influence this car tyre replacement purchase decision ?

## Research Objectives

The end objective of this research is to provide an understanding of key buyer values and of the buyer value-based segments which can help tyre marketers design a more targeted marketing strategy. The intent is to build an understanding of top tyre attributes, and of the attribute hierarchy based customer segments. This understanding can help marketers in :

- ✍ Selecting the most relevant customer segment to target on the basis their offerings's value proposition.
- ✍ Designing offerings in alignment with the needs of their target customer segments.
- ✍ Designing communication tailored around their target customer segments.
- ✍ Designing targeting outreach programs for key ecosystem stakeholders who influence the purchase decision.

## Research Methodology

A series of qualitative exploratory studies were conducted to understand the buyer values and attribute preference

**Table 3. Research Type and Sample Size**

Research Type	Sample Size	Location
Exploratory Interviews	10	Bangalore
Personal Survey	65	Pan India
Online Survey	47	Pan India
<b>TOTAL</b>	<b>112</b>	<b>Pan India</b>

hierarchy. These studies were conducted and their sequence is summarized in Table 3 and the details follow subsequently. This study was undertaken during February – June 2019.

**(1) Exploratory Interviews :** A total of 10 in-depth, face-to-face exploratory personal 'discussions' were conducted with car owners to understand their tyre purchase behaviour. These discussions were conducted in the city of Bangalore to arrive at a consideration set of seven unique product attributes. During these interactions, discussion was focused around the following aspects:

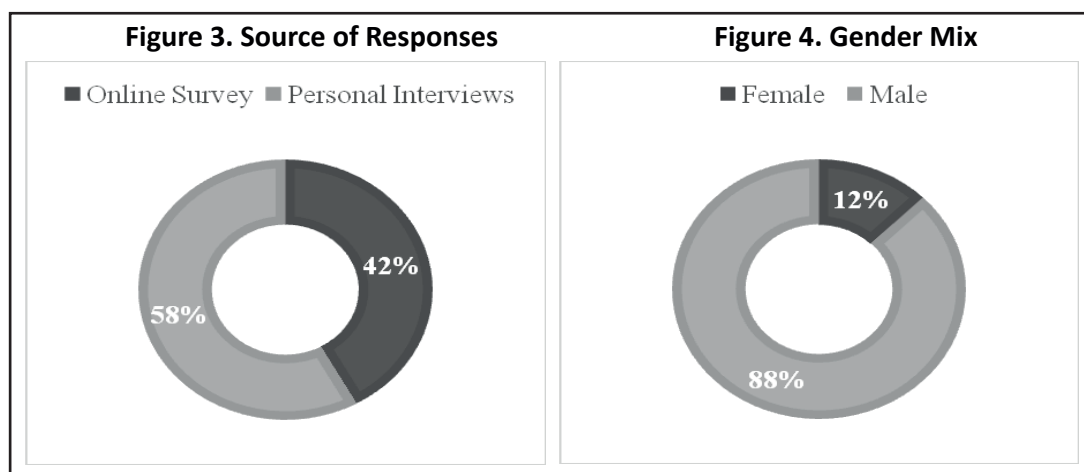
- ✦ **Car Usage Behaviour :** Type of car, age of car, average running, highway or city, etc.
- ✦ **Tyre Purchase Behaviour :** Tyre replacement frequency, occasion of replacement, decision attributes for purchase, brand awareness, etc.

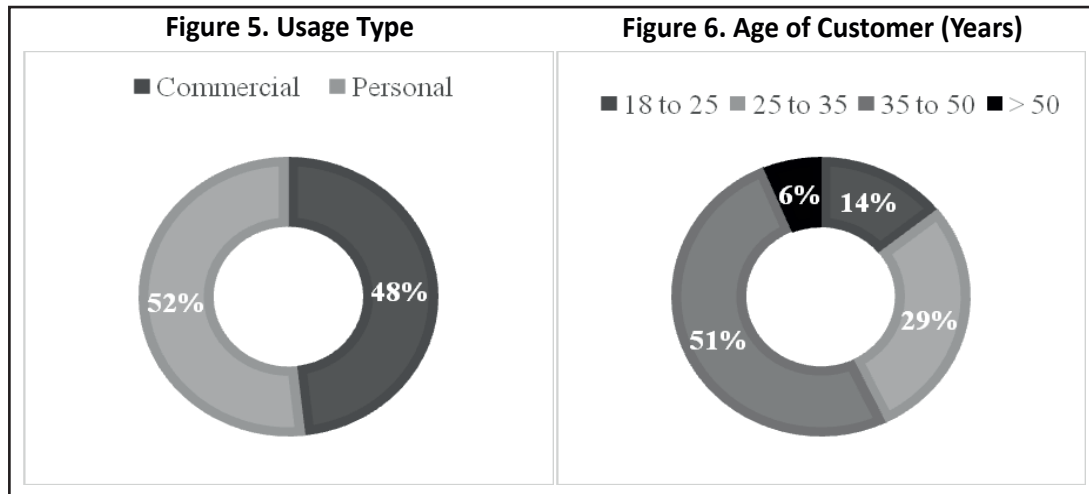
The decision attributes mentioned by these 10 customers were then synthesized to form an exhaustive consideration set of seven attributes which customers consider while making a tyre purchase decision.

**(2) Personal & Online Survey :** The seven unique attributes, identified from exploratory discussions, were then tested for their relative importance by conducting personal and online surveys at a pan India level. A total of 112 responses were received from these surveys. The surveys probed tyre customers on the following areas :

- ✦ Personal profile (age, gender, occupation).
- ✦ Vehicle ownership/usage details (cars owned, age of the car, self/chauffeur-driven, highway/city-driven, top five decision attributes for car purchase).
- ✦ Tyre brand recall (brand awareness, brand perception).
- ✦ Tyre usage (Tyre awareness, tyre replacement frequency).
- ✦ Tyre purchase behaviour.

**(3) Sample Description :** Source of responses were evenly distributed between those generated from online surveys and those generated through face to face discussions (personal interviews). Figure 3 shows the distribution in terms of percentage of responses by survey method. Figure 4 shows the distribution of customers





interviewed by gender. This is in line with the national statistics where females hold less than 5% of all four-wheeler driving licenses.

Responses were received from 112 customers spanning across 12 cities in India: Agra, Aligarh, Bangalore, Chennai, Delhi, Gurgaon, Hyderabad, Jaipur, Kochi, Kolkata, Meerut, and Mumbai.

The sample had an even mix of commercial and personal vehicles in terms of usage type as shown in Figure 5 and in terms of the age of the customer as shown in Figure 6.

## Analysis of Responses

The survey responses were analysed in different ways to generate the required insights. The analysis plan is shown in Table 4.

**(1) Consideration Set Analysis :** This analysis was done on the 10 responses received from in-depth, face-to-face exploratory discussions conducted in Bangalore, India. During these discussions, customers used various words and phrases for the attributes they looked at while making a tyre purchase decision. Some of the attribute names or phrases used by customers are as follows :

Tread design, anti-skidding, tire width, grip, sturdy look, brand, tread depth, authentic brand, discount, reliability, durability, price, lifespan, performance, repairability, quality, long term price, should show strength, should not give too much elastic feeling, dealer recommendation, should look good with alloy wheels, etc.

I synthesized this information to build an exhaustive consideration set of seven attributes that customers look at while making a tyre purchase decision. Frequency of usage of the word and its intended meaning were the primary criterion behind this synthesis. The consideration set of seven attributes that emerged post synthesis is as follows:

**Table 4. Analysis Plan**

Analysis Type	Objective	Sample Size
Consideration Set Analysis	Build a consideration set of seven attributes	10
Attribute Hierarchy Analysis	Identify the top five attributes	112
Attribute Hierarchy Based Customer Segmentation	Identify meaningful customer clusters	112
Ecosystem Influencer Analysis	Identify key decision influencers	112



Brand, price, reliability, quality, safety, performance, and looks. I next looked at the top five attributes that emerged out of this consideration set from the 112 survey responses.

**(2) Attribute Hierarchy Analysis :** On the basis of the analysis of 112 responses received, Table 5 shows the top five attributes which customers looked at while making a tyre purchase decision.

Table 6 shows the top five rank distribution amongst the top five attributes for the 112 responses. For example, 47 responders gave quality as Rank 1 in their attribute preference hierarchy. Table 6 clearly shows that quality stands high above all other parameters as the top attribute which customers consider in their decision-making process. Out of 112 customers, 47 customers ranked quality as their number one attribute, the next highest being brand, which was rated as number one by 27 customers.

From the top of the mind perspective as well, quality and price occur as top five for more than 80% of the customers, as shown in Table 7.

Quality and price emerge as the two most important parameters and are much ahead of the others such as brand, safety, and reliability.

Let's look at a few more qualitative insights from the overall analysis.

**(3) Impact of Tyres on Vehicle Performance :** The top five attribute hierarchy clearly indicates that customers did not value 'performance' and 'looks' that high in their decision making. However, customers did indicate that they considered the look of the tyre while judging other parameters such as quality and safety. Most customers did not

**Table 5. Top Five Attributes**

Rank ->	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Attribute ->	Quality	Price	Brand	Safety	Reliability
Weighted Rank->	3.0	3.4	5.1	6.2	6.6

**Note :** For the purpose of aggregate rank analysis, a default rank of '9' was allocated to attributes which were not ranked in the top five by the customers.

**Table 6. Rank Distribution of Attributes**

Data Indicates the Number of Responders					
	Quality	Price	Brand	Safety	Reliability
Rank 1	47	25	27	24	18
Rank 2	26	37	23	8	6
Rank 3	9	20	5	5	6
Rank 4	9	5	1	5	1
Rank 5	3	5	5	4	10
Not in Top 5	18	20	51	66	71
Total Responses	112	112	112	112	112
Aggregate Rank	1	2	3	4	5

**Table 7. Top of the Mind Occurrence (Percentage of Responders)**

Brand	Price	Reliability	Quality	Safety
54%	82%	37%	84%	41%



believe that tyres have a differentiating impact on overall performance and comfort of the car, and hence, did not rate performance in their top five. Also, customers commented that the performance of a tyre cannot be tested. Hence, they considered brand or their past experience as a proxy for performance promise.

**(4) Role of Purchase Influencers :** If we look keenly, price is the only factor which customers can be objective of when comparing between brands. For other factors such as quality, brand, safety, and reliability, customers found it difficult to evaluate objectively at the point of purchase. Hence, they used other proxy sources to form their perception on these attributes. These proxy sources or '*purchase influencers*' as per customer speak are – advertisements, look of the tyre (tread design), past experience with the brand, OE fitted brand, and recommendation of influencers such as tyre retailers, tyre mechanics, drivers, knowledgeable friends, etc.

**(5) Significance of OE Fitted Tyre Brand :** The OE fitted brand emerges as a significant influencer in the purchase decision. Around 72% of the responders indicated that they preferred the same brand that came fitted with their new car. They believed that the OE fitted brand was best suited for their vehicle as the OEM must have already tested the tyre for quality and performance fitment with respect to the car.

In the next section, I look at if this attribute hierarchy can be used to identify unique customer segments.

**(6) Attribute Hierarchy Based Customer Segmentation :** An MS Excel-based *k* - means clustering technique was used to segment these responses into meaningful clusters. After multiple iterations, four best - fit clusters emerged:

✎ **Segment 1 :** Value for Money Seekers (41 of 112 members).

✎ **Segment 2 :** Brand Conscious (18 of 112 members).

✎ **Segment 3 :** Safety Value Seekers (27 of 112).

✎ **Segment 4 :** Perfectionists (26 of 112 members).

✎ **Ensuring the Quality of Clustering :** Multiple iterations with three, four, and five clusters were done and four clusters were chosen as the most optimal number for the following reasons:

✎ Intra-cluster separation achieved was minimum in case of four cluster setting.

✎ The four clusters were found to be unique and meaningful when examined qualitatively.

The comparison between intra-cluster and inter-cluster separation means, as shown in Table 8, establishes the quality of clustering achieved.

With the considerations as depicted in Table 8, the four clusters can be considered as statistically valid. Let us now look at the four segments in a little more detail and understand their managerial implications.

**Table 8. Clustering Validation on the Basis of Intra-Cluster and Inter-Cluster Separation Means**

	Mean of Distance to Anchor 1	Mean of Distance to Anchor 2	Mean of Distance to Anchor 3	Mean of Distance to Anchor 4
<b>Cluster 1</b>	<b>1.32</b>	12.51	14.37	7.29
<b>Cluster 2</b>	13.37	<b>4.14</b>	18.23	9.33
<b>Cluster 3</b>	22.3	24.54	<b>4.76</b>	17.09
<b>Cluster 4</b>	12.06	12.09	17.78	<b>4.81</b>

**(i) Segment 1 - Value for Money Seekers :** The first segment considered quality and price as the top attributes and no significant importance was attached to the other three attributes. Since these customers were seeking high quality at a low price, I am naming them 'Value for Money Seekers.' Aggregate rank for the consideration set of seven attributes for this segment is shown in Table 9.

No. of customers in this segment : 41 out of 112 (37%).

This segment clearly has the largest representation (37%) in the representative sample. However, a larger quantitative validation is required to conclude if Value for Money Seekers are in-fact the largest segment in the market, both in terms of volume and value.

#### Demographic Highlights of Segment 1: Value for Money Seekers

✎ Hundred percent members of this segment were males. This indicates that female buyers expect more from tyres than just value for money.

✎ This segment is dominated by commercial users with 76% members having commercial applications. This indicates that when it comes to tyres, commercial users are more value-for-money focused as compared to personal users.

✎ This segment comprises of the heaviest users ; 56% of the members drove more than 50 km on a daily basis, while 88% of the members drove more than 20 km on a daily basis. This indicates that customers with heavy usage focus more on the value-for-money aspects to minimize their expenses.

✎ This is also the oldest of all segments, with 51% of its members above the age of 35 years and only 12% respondents being less than 25 years of age.

**(ii) Segment 2 - Brand Conscious :** The second segment only looked at brand and quality while deciding on the purchase. These customers were willing to pay a high price for a good quality brand. Hence, I am calling them 'Brand Conscious.' Aggregate rank for the consideration set of seven attributes for this segment is as shown in Table 10.

No. of customers in this segment : 18 out of 112 (16%).

This is the smallest segment in terms of representation in the sample set (16%). However, given that they were not price-conscious, this segment might not be insignificant when evaluated in terms of dollar value share.

#### Demographic Highlights of Segment 2 : Brand Conscious

✎ Sixty one percent of the members of this segment were personal users, however, commercial users were not too far behind with 39%. This indicates that the significance of brand equity cannot be ignored for commercial users.

**Table 9. Attribute Ranking for Segment 1**

Brand	Price	Reliability	Quality	Safety	Performance	Looks
8.9	2.0	7.7	1.5	8.7	8.9	9.0

**Table 10. Attribute Ranking for Segment 2**

Brand	Price	Reliability	Quality	Safety	Performance	Looks
2.9	9.0	7.9	2.9	7.8	8.6	8.6

✚ This is the youngest of all segments ; 83% of the members of this segment were less than 35 years of age. This indicates a higher fixation of brands amongst the younger age category when it comes to tyres as a product category.

**(iii) Segment 3 - Safety Value Seekers :** The third segment looked at brand and price along with safety as the top decision attributes. This is the only segment which considered safety as a key attribute. Hence, I am calling them 'Safety Value Seekers.' Aggregate rank for the consideration set of seven attributes for this segment is as shown in Table 11.

No. of customers in this segment: 27 out of 112 (24%).

This is the second-largest segment in terms of representation in the sample set (24%). While these customers looked at brand and price as their primary criterion, they also needed some degree of reassurance with respect to the safety features of the tyre.

#### Demographic Highlights of Segment 3 : Safety Value Seekers

✚ Almost 60% of all females interviewed fell in this segment. This confirms the popular belief that women are more safety conscious as compared to men.

✚ Only 6% of the responders aged between 18 – 25 years fell in this segment. This confirms the popular belief that youngsters are more risk-taking and less safety-conscious.

✚ This segment is dominated by personal users with 92% of its members using their cars for personal applications. This indicates that personal car users are more focused on safety as compared to commercial users.

✚ Forty two percent responders agreed that their car was also driven by their other family members. This indicates the presence of derived expectations phenomenon and hence safety a priority.

✚ In continuation with the emerging theme, 92% of the members drove their cars on city roads. This indicates that safety expectation from tyres is not linked to an extensive highway usage of cars.

With females playing an increasingly significant role in family purchase decision making in India (Mary, 2009), marketers need to look at this segment from an entirely different lens.

**Table 11. Attribute Ranking for Segment 3**

Brand	Price	Reliability	Quality	Safety	Performance	Looks
3.1	2.3	8.1	6.4	4.6	8.3	8.6

**(iv) Segment 4 - Perfectionists :** The fourth segment is very peculiar as this cluster assigned almost equal importance to all five attributes in their tyre purchase decision making, quality still being relatively the most important of all attributes. Since these customers wanted all attributes, I am calling them 'Perfectionists.' Aggregate rank for the consideration set of seven attributes for this segment is as shown in Table 12.

**Table 12. Attribute Ranking for Segment 4**

Brand	Price	Reliability	Quality	Safety	Performance	Looks
2.8	3.0	2.5	2.0	2.6	2.5	3.6

No. of customers in this segment: 26 out of 112 (23%).

With 23% representation in the sample set, this segment cannot be ignored. A more targeted communication is needed for this set as they were asking for everything in their tyre and that too at a reasonable price. Marketers will need to work on a lot of perception building for this set.

#### **Demographic Highlights of Segment 4 : Perfectionists**

✎ Eighty six percent of the responders aged above 50 years were perfectionists. This indicates that customers in this age category have high expectations from tyre companies and they judge them on all parameters while making the purchase decision.

✎ These were the second heaviest users amongst the four segments, with 41% users averaging more than 50 km per day and 74% of the users clocking more than 20 km per day.

### **Managerial Implications**

Tyre marketers need to note that at a broad level, the top five decision attributes for customers looking to replace their car tyres in order of preference are – quality, price, brand, safety, and reliability. However, quality and price assume significant importance when compared to the other attributes. This is quite intuitive given the demographic nature of India as a country where customers have been traditionally found to be value – conscious – asking for high quality at a low price. Thus, in order to win the market, tyre marketers need to focus on delivering value and managing perceptions around that.

There is also good news for tyre marketers in the premium segment such as Michelin. The research establishes the presence of a significantly sized customer segment which is not so price-conscious and is willing to pay for a high-quality brand. This indicates a possible play for manufacturers looking to establish themselves as a premium niche.

Another notable factor for marketers is the sizable section of customers which associates safety very strongly with tyres. It is notable that 24 out of 112 customers rated 'safety' as their top attribute while making the purchase decision and a significant share of them were female drivers. Thus, marketers need to not only build a strong brand perception around safety, but also deliver safety features through product design features.

Another key message for marketers is to take care of proxy influencers which customers use to assess for attributes such as quality, safety, and reliability. While OE fitment is pivotal, the role of other influencers such as drivers, mechanics, and retailers cannot and should not be undermined.

### **Limitations of this Study and Scope for Further Research**

This research is an exploratory study meant to act as a starting point for expanding the research domain in the tyre industry. The findings are exploratory in nature, the sample size is small, and hence, cannot be conclusively established without a quantitative validation. Also, while the responses represent a pan - India presence, a larger sample with a wider geographical coverage is needed for validation of these findings. The clustering methodology is another limitation wherein it is difficult to establish if these are the best possible clusters which can be formed. Different researchers might come up with different segments. Most of these limitations can be solved by conducting a quantitative validation across a larger sample size.

The conclusions from this report can be further validated through a larger sample quantitative study. Proxy

factors that customers use to evaluate quality, safety, and reliability can be further validated through a quantitative study. This methodology can be further expanded to other vehicle segments such as commercial vehicles.

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## Author's Contribution

Anshu Sharma contributed to the formulation, design, and implementation of the research ; to the analysis of the results ; and to the writing of the manuscript. Abhimanyu Goel and Varun Singh contributed with the data collection process.

## Conflict of Interest

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter or materials discussed in this manuscript.

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