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### **An impact of purchase decision and brand selection of a car in India - an empirical study**

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## An impact of purchase decision and brand selection of a car in India – an empirical study

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**Abstract:** This article throws light on different factors that influence customers towards the purchase decision made in the purchase of cars. The domestic automobile industry places significant importance on the Indian automobile market as one of its most important subsectors. An automobile, which in the earlier stage was seen as a luxury item for the urban middle class, has now evolved into the most desired form of personal transportation. The class-leading vehicle on the market for commercial vehicles is a four-stroke car that stands out for its good looks, low fuel consumption, and long-lasting quality and its purchase is influenced by a variety of psychological factors such as product design, quality and safety, brand name, specification and personal preference. Exploratory factor analysis and confirmatory factor analysis were used to confirm the factors used in this study were appropriate and reliable for the present context. A collective decision based on personal preference is highly influenced by car purchase decisions.

**Keywords:** product; automobile; cars; brand; purchase decision; India.

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## **1 Introduction**

India is rapidly growing in this globalisation era, with consumerism and materialism at an all-time high due to rising purchasing power. Consumers in India have moved beyond their needs due to rising aspirations for luxury (Tynan et al., 2010), and people are living lavish lifestyles similar to their Western counterparts by owning branded products. The rise of India's luxury market can be directly attributed to this increased public interest, indicating that Indian consumers are changing. Nowadays, in India, proudly displaying one's status and prestige has become an integral part of society, and as a result, people are preoccupied with raising their standards and living a lavish lifestyle (Shrivastava, 2022). India's automobile industry is one of the world's fastest-growing automobile industries. In India, the passenger car industry has grown significantly. The automobile industry has attracted a significant amount of foreign direct investment (FDI), and the government of India has high aspirations of turning the country into a manufacturing centre with advanced research and development capabilities. India is the world's seventh-largest manufacturer of commercial vehicles, which is a notable accomplishment in its own right. Because of an increase in the CAGR, the number of cars sold in the domestic market has climbed dramatically. Commercial vehicles have grown at the fastest rate in domestic sales, followed by three-wheelers. National automotive testing and R&D infrastructure project centres and a national automotive board have been established in India to act as liaisons between the Indian government and the automotive sector. In India, two-wheelers, four-wheelers, and commercial vehicles make significant contributions to the domestic automotive industry. Both new and used car purchase has increased in all segments, including compact cars, mid-size hatchbacks, sedans, vans, multi-utility vehicles (MUVs), compact SUVs, and sport utility vehicles (SUVs) (Smith, 2023). Commercial vehicles, which include pick-up trucks, buses, and trucks, account for forty percent of all vehicle sales. These vehicles play a significant part in transportation and logistics, and as a result, they contribute to the gross domestic product. At present electric vehicles gradually increase and positive approach from the customer (Miranda and Delgado, 2020). User experience, brand, and technology significantly influence the purchase intention of electric vehicles (Miranda and Delgado, 2020; Issac et al., 2022). By the year 2030, the government of India plans to switch completely over to electric vehicles (EVs). Historically, a few European companies dominated the automotive manufacturing industry (Nag et al., 2007). Over time, the car manufacturing industry expands dramatically as car ownership becomes a necessity, increasing demand for automobiles (Lee and Govindan, 2014). Companies invested significant capital and ideas to boost consumer awareness of their brands. In anticipation of future technological change, already few companies have introduced electric scooters and rickshaws. The rise in sales of luxury vehicles in India, including BMWs, Audis, and Mercedes Benzes, amongst others, during the past several years reflects an improvement in both the spending power and lifestyle of the country's population. People's car purchase pattern has shifted significantly since globalisation. People are now more brand sensitive than ever before, and as a symbol of prestige, they choose foreign brands over national brands. In terms of brand satisfaction mediates the effects of the brand price, brand image, and brand trust toward brand loyalty (Alfakih et al., 2021). Luxuries car is the highly preferred basis of the brand (Ratnasari et al., 2023).

## **2 Literature review**

### *2.1 Product design*

Products are items that are easily accessible in the market and may be bought, utilised, and experienced by customers, thereby satisfying the requirements and gratifications that customers have. Actual market products, such as tangible goods, services, experiences, events, characters, and locations, as well as belongings, organisations, information, and ideas, are examples of general products. General products are not simply collections of tangibly observable product features (Dhanabalan et al., 2018). There are four aspects of a car purchase that have a substantial impact on a person's intention to make a purchase such as pricing, appearance, features, and interpersonal influence. The outward manifestations of a car, often known as its visual qualities, are the single most essential aspect in determining whether or not a person intends to buy a car (Kowang et al., 2018). Product functionality is defined as the degree to which a product meets the requirements of its intended use and satisfies the expectations of its target market (Belgiawan et al., 2014). Consumers' top priorities when purchasing a car have been identified by previous research as the capacity to customise the features, visibility, and easy access to the features themselves (Zhan and Vrkljan, 2017). Consequently, car manufacturers who can create and deliver such features will be in a position to obtain and sustain a competitive advantage in the sub-segment of the automobile industry (Goldenberg et al., 2003). Factors influencing car purchase decisions (Chacko and Selvaraj, 2014) and considerations for brand selection include dependability, safety and comfort, innovative design, cost and convenience, dependability, graciousness, luxury, handling behaviour, and compatibility (Singh and Kapil, 2018).

### *2.2 Quality and safety*

The quality of a product or service is how the customer sees it. This indicates that the customer believes that the product or service fits his or her needs. The quality of a product is how a consumer feels about it. This indicates that the customer perceives that the product or service does match their demands. Quality can mean anything from dependability to fuel efficiency to utility and it is based on different car buyers (Kaushal, 2014). Quality is related to the car's exterior, interior, and features. Personal preferences and external factors frequently influence buyers' requirements. Owning a luxury passenger car is seen as a way for people to boost their status in society (Netemeyer et al., 1995). According to Zeithaml (1988) intrinsic cues are performance, features, reliability, conformity, durability, serviceability, and elegance are examples of physical attributes. Price, brand name, brand image, corporate reputation, manufacturer image, retail shop image, and place of origin are extrinsic attributes. Brand, pricing, and packaging are all examples of extrinsic cues that might help you evaluate a product's quality (Selnes, 1993). Parasuraman et al. (1988) states the general impression or attitude about product quality. Product safety is the reduction of the likelihood that the use of a product would result in illness, damage, death, or adverse impacts on people, property, or equipment. Product security is the delivery of an uncompromised product that has not intentionally polluted, damaged, or diverted along the supply chain. When safety and security are considered, consumers are willing to pay a premium for more product features such as

engine size, brakes, and airbags. Consumers are prepared to pay a premium for such additional qualities if the benefits outweigh the expense (Kaushal, 2014). Safety features include brakes, airbags, anti-stick brake systems, and high-tech features. The automotive sector is at the forefront of innovation when it comes to making products safer and more secure. Including safeguards for the driver and passengers in the design process is one way to increase safety on the road. The most important safety characteristics are those that lessen the possibility of fatalities and serious injuries. Among these are airbags, antilock brakes, impact protection systems, trunk safety, seat belts, body safety, and several alarm facilities (Phuong et al., 2020).

### 2.3 *Brand*

A brand is made up of a name, a symbol, and a design. Brand image is a series of brand associations (Aaker, 1991). Keller and Lane (1993) defined “brand image as the sum of all brand associations held in consumers’ memories that led to perceptions of the brand.” A car’s brand name is a critical factor in vehicle preference and selection (Train and Winston, 2007). The image of the automobile is reflected in the name of the automobile’s brand (King, 1991), as well as the quality and dependability (Tay and McCarthy, 1991) that a consumer confers (Lane and Potter, 2007) on his or her social status. When brands can accomplish their goals, customers’ identities can be improved, and as a result, people utilise brands as an instrument for expressing their beliefs and identities (Swaminathan et al., 2007). Customers’ opinions and perspectives on a product’s effectiveness are reflected in the brand’s name and logo. Brand image and corporate image are the uppermost priority for selection from the alternatives (Haryanto et al., 2022). The powerful brand is the one that the consumer associates with. Brands differ in the amount of market power and worth they have (Chopra, 2018). Certain brands are typically unknown to market buyers, but others have a very high level of recognition. Consumers do not hesitate to buy brands with high recognition since they enjoy the performance of the brand. Personality traits such as openness and agreeableness positively impact a brand’s loyalty (Joshi et al., 2021). Some brands reward strong brand loyalty (Alamgir et al., 2010). In the last decade, branding has become a top management concern because of the growing recognition that brands are one of the most important intangible assets that companies possess (Keller and Lehmann, 2006). Brands are extremely important in consumer decision-making processes. Businesses must understand their customers’ decision-making processes and the conditions under which they make decisions (Cravens and Nigel, 2003).

### 2.4 *Specifications*

Price, horsepower, fuel expenses, availability, fuel type, and, emissions are essential considerations for individuals looking to purchase a car (Hilgenkamp and Shanteau, 2010). Fuel type is the most important of the five pre-selected qualities when it comes to customer car choice, followed by price, fuel consumption, and automobile style. Attributes such as fuel consumption level and automotive-style have the least influence on consumer purchase decisions (Kabadayi et al., 2013). The most preferred attribute is fuel type, followed by price and security level.

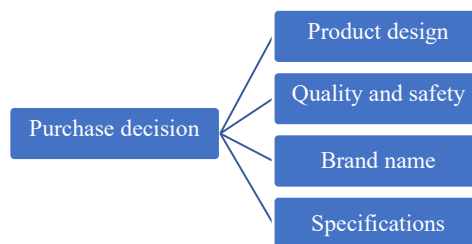
The level of fuel efficiency and the automobile’s style were less important factors. According to research (Odekerken-Schröder et al., 2003), various consumer

demographics place varying importance on certain automotive features. Car buyers must also consider how much gas will cost them and how efficient the vehicle will be (Hensher et al., 2011; Train and Winston, 2007). The preference for mileage is strong among Indian consumers, who also seek fuel economy to save money (Gupta, 2016). People prefer fuel-efficient cars over heavier, lower-maintenance-cost, and lower-depreciation vehicles (Dardis and Soberon-Ferrer, 1994). Limited service and maintenance points, as well as a scarcity of fuel-filling stations, have a moderate impact on consumer vehicle purchase preferences (Horne et al., 2005; Potoglou and Kanaroglou, 2007). Customers prefer specific cars based on the fuel type. There are a lot of households that are eager to spend considerable sums of money in exchange for better fuel economy and lower emissions. Customers have shown a preference for longer driving ranges and improved charging infrastructure (Hackbarth and Madlener, 2013).

## 2.5 Purchase decision

The act of making a purchase is based on behaviour, which is then affected by one's attitude toward that purchase (Ajzen, 1991). Purchasing a car is regarded as a subjective decision based on the customer's preferences. Because of these many tiers of key criteria, consumer needs are always changing, resulting in a shorter product life cycle (Byun, 2001). Car manufacturers should be able to figure out their customers' purchasing decisions and provide them with a positive driving experience. Consumers who are pleased with the car's quality are likely to buy another car in the future. When buying a car, attributes like attitudes, beliefs, and motivations can be useful predictors, particularly when it comes to fuel efficiency options (Peters et al., 2011). Future car models that reflect a consumer's lifestyle, personality, and travel habits may be decided by including attitude in the understanding of purchase decisions (Choo and Mokhtarian, 2004). Social media helps customers to search for initial information or major information about the product for purchase decisions (Mahrous, 2016).

**Figure 1** Research model (see online version for colours)



## 3 Materials and methods

The prime objective of this study was to analyse the Factors influencing car purchase decisions and brand choices among the general public in India. The study was conducted among the general public from various states in India. Samples were selected through convenience sampling. The total sample size for the study was 350. The primary data were collected using a standard questionnaire to measure the factors influencing the

customers' purchase decision of cars. The questionnaire consists of two sections. The first section contains the questions on demographic profile of the respondents. The second part consists of questions on factors namely product design, quality and safety, brand, specifications, and purchase decision. The overall reliability of the variables was found to be 0.750 (Cronbach alpha value) for 19 items in the questionnaire suggesting that the data collected can proceed with further analysis (Hair et al., 2010). Demographic profiles were analysed through percentage analysis, exploratory factor analysis, and confirmatory factor analyses were used in this study.

#### 4 Results

The demographic profile of the respondent shows that 75.7% of them are male and the remaining 24.3% of them were female. Based on age the result shows that 33.1% of the respondents are within the age group of 40 to 50 years. Another notable category was the occupational status of the respondents, 42.6% of the respondents were engaged in business. 57.1% of the respondents were married, 55.1% of the respondent's monthly income falls between Rs.1 lakh to Rs.2 lakhs and 25.4% of the respondents prefer Mahindra brand cars respectively.

**Table 1** Demographic profile of the respondents

<i>Particulars</i>		<i>Frequency (n = 350)</i>	<i>Percentage</i>
Gender	Male	265	75.7
	Female	85	24.3
Age (in years)	Below 30 years	44	12.6
	30-40 years	111	31.7
	40-50 years	116	33.1
	Above 50 years	79	22.6
Occupation	Business	149	42.6
	Government employee	120	34.3
	Private employees	81	23.1
Marital status	Married	200	57.1
	Unmarried	150	42.9
Monthly income	Less than Rs.1 lakh	45	12.9
	Rs.1-Rs.2 lakh	193	55.1
	Rs.3-Rs.4 lakh	112	32.0
Brand choice	Maruti Suzuki	51	14.6
	Tata	66	18.9
	Mahindra and Mahindra	89	25.4
	Honda	87	24.9
	Hyundai	57	16.3

*Source:* Computed from primary data

Table 2 shows the results from the exploratory factor analysis. Five factors have been extracted: quality and safety, product design, brand, specifications, and purchase decision. The factor loadings for all the items of the five constructs were more than 0.6.

**Table 2** Results from exploratory factor analysis

<i>Items</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>
QS4	0.910				
QS1	0.907				
QS3	0.897				
QS2	0.895				
PD4		0.903			
PD1		0.902			
PD3		0.886			
PD2		0.873			
B1			0.923		
B2			0.920		
B4			0.805		
B3			0.738		
SP3				0.855	
SP4				0.840	
SP1				0.784	
SP2				0.675	
PUR1					0.875
PUR3					0.869
PUR2					0.868

Notes: Kaiser-Meyer-Olkin measure of sampling adequacy (KMO): 0.805; Bartlett's test of sphericity: 5,953.677; df: 171; sig. 0.000; principal component analysis; varimax rotation.

Table 3 shows that the majority of the item loadings to their corresponding variables were above 0.7 (Fornell and Larcker, 1981). The Cronbach alpha value for each construct was above 0.7 which indicates that the item reliability was good. The researcher used composite reliability (CR) and average variance extracted (AVE) to test the convergent validity of the five constructs. CR was used to confirm the variables' internal consistency and helps measure the extent of item correlation.

According to Nunnally (1978) each construct's CR was more than 0.7. Construct reliability of the latent variables is considered to be good when the CR values are high. Thus each latent construct is reliable. The AVE for all the variables in this study was more than the suggested value of 0.50 (Fornell and Larcker, 1981).

The goodness of fit indices for CFA obtained an acceptable level of fit ( $X^2/DF = 2.759$ ; GFI = 0.900; CFI = 0.959; IFI = 0.959; NFI = 0.937; RMSEA = 0.071). This goodness of fit index for the five-factor model shows the confirmation of construct namely product design, quality and safety, brand, specifications, and purchase decision of cars.



**Table 3** Reliability and convergent validity test results

<i>Variables</i>	<i>Reliability</i>		<i>Convergent validity</i>		
	<i>Item</i>	<i>Cronbach's alpha</i>	<i>Factor loading</i>	<i>CR</i>	<i>AVE</i>
Quality and safety	QS4	0.925	0.910	0.946	0.814
	QS1		0.907		
	QS3		0.897		
	QS2		0.895		
Product design	PD4	0.915	0.903	0.939	0.794
	PD1		0.902		
	PD3		0.886		
	PD2		0.873		
Brand	B1	0.908	0.923	0.912	0.723
	B2		0.920		
	B4		0.805		
	B3		0.738		
Specifications	SP3	0.876	0.855	0.870	0.627
	SP4		0.840		
	SP1		0.784		
	SP2		0.675		
Purchase design	PUR1	0.962	0.875	0.904	0.758
	PUR3		0.869		
	PUR2		0.868		

Note: Cronbach's alpha  $\geq 0.7$ , CR  $\geq 0.7$  and AVE  $\geq 0.5$ .

**Table 4** CFA model fit indices

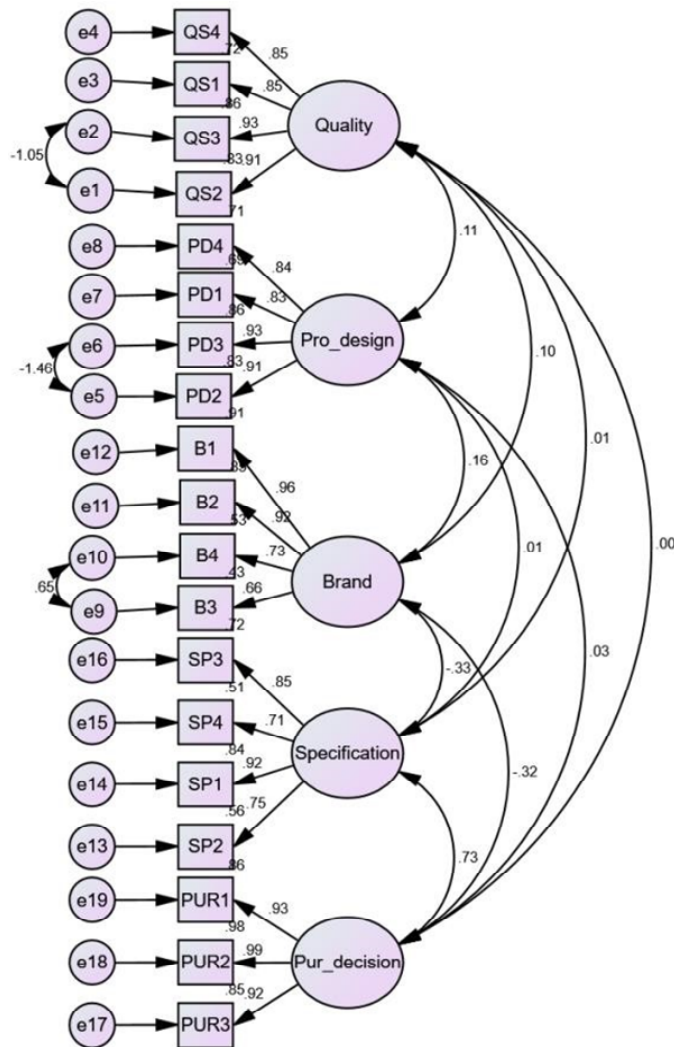
<i>Fit statistics</i>	$\chi^2/DF$	<i>GFI</i>	<i>CFI</i>	<i>IFI</i>	<i>NFI</i>	<i>RMSEA</i>
CFA model	2.759	0.900	0.959	0.959	0.937	0.071
Desired value	5.00		>0.90			<0.08
References	Marsh and Hocevar (1985)	Hair et al. (2010)	Bentler (1990)	Bollen (1989)	Bentler and Bonett (1980)	Steiger (1990)

## 5 Conclusions

The modern consumer purchase decision changes over the period. Most of the consumers expected something new from the product based on personal preference. Car is a personal preference for that reason so many factors influence the purchase decision. A car purchase is required for different features and preferences. The decision to buy a car is not made by a single person. Many factors, including their perceptions and behaviour, usually influence the purchase. The key determinants of car purchase decisions made by the customers in the study area were product design, quality and safety, brand name, and specifications of the car. The study confirms that the factors studied in this research prove

that customers make a purchase decision based on the factors and hence it is proved using confirmatory factor analysis in the present context. Males are most likely to make purchase decisions regarding the purchase of cars than females. In comparison to age, middle-aged people likely about 40–50 years of age dominate in deciding to purchase a car by analysing the factors. Graduated customers were more likely to make purchase decisions. Most of the customers prefer the brand Mahindra and Mahindra cars, followed by Honda, Tata, Hyundai, and Maruti Suzuki. Car purchase preference is a collective decision based on personal choice. The car company wants to give more options for personal preference and collective preference.

**Figure 2** Structural equation modelling (see online version for colours)



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