

# DEVELOPMENT OF SCALE TO MEASURE THE PSYCHOLOGICAL FACTORS INFLUENCED SUV CONSUMERS'

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## **Abstract**

*This study aimed to develop a scale to measure the psychological factors that influenced SUV consumers. Sport Utility Vehicle (SUV) is the market's best selling car platform in India. The craze for SUV has been increasing rapidly and the automobile manufacturers are seen shifting their focus on new SUV lineups. Mahindra, Tata, Hyundai, Toyota etc were some of the most prominent SUV makers who had a wider market in India. SUV cars attract buyers with their rugged looks and spacious interiors. SUVs are considered to be more powerful than other models of cars. Studies have noted that psychologically SUV owners consider themselves as the dominant class of people on the roads as their vehicle seems to be larger in size compared to the sedans and hatchbacks. This research study was done using a quantitative methodology and survey. The major research objective of this study was to develop a scale of measure that identifies the dominant psychological factors that influence SUV consumers. A sample of 102 individuals participated in the study from various parts of Tamil Nādu who own SUVs. To attain the research objective, an online survey questionnaire was designed using google forms which includes a wide range of psychological parameters relevant to SUV ownership. The parameters included satisfaction, brand awareness, status, purchase intentions, and self-identity. The survey instrument was designed purposefully to grab the nuances of the psychological experiences of SUV owners. The results of their responses were analyzed using advanced statistical techniques and software such as SPSS. Factor analysis was employed to identify the underlying factors that contribute to the influence of SUV ownership. The findings of the study composed three key factors that played a crucial role in determining the psychological factors influencing the SUV consumer behavior. These factors included the perceived innovation, purchase intentions and brand awareness. The findings of this study offer valuable insights into the psychological needs and desires of SUV owners helping automobile manufacturers to enhance their strategies and product offerings to meet consumer expectations. This study also contributes to extracting more knowledge on consumer behavior and post-purchase psychology, specifically in the context of SUV ownership.*

## **Keywords:**

*Consumer, Psychological Factors, SUV Owners, Scale Development, Satisfaction, Pride, Status Symbol, Identity*

## **1. INTRODUCTION**

In recent years, the automotive industry in India has witnessed a significant surge in the demand for Sports Utility Vehicles (SUVs). SUVs are one of the most popular and fastest-growing segments in the Indian car market. 'The Financial Express', in its article explains that In India, the growth of SUV has reached a tremendous height as 36 new models of SUV cars have been manufactured and launched by various automobile manufacturers in the last 5 Years catering to the diverse needs and preferences of the Indian buyers. These vehicles, with their rugged design, spacious interiors, and powerful engines, have become increasingly popular among Indian consumers who were found shifting from the traditional preferences for compact sedans or

hatchbacks. The rising attraction for SUVs in India stimulates questions about the psychological factors that drive their choice, satisfaction, and subsequent behaviors [1].

This research paper aims to investigate the various views of psychological aspects of attitudes possessed by SUV over their vehicle. The field of consumer psychology recognizes the importance of understanding people's motivations, attitudes, and perceptions which contribute to their post purchase consequent behaviors. SUV owning individuals tend to have notable peculiar psychological characteristics, influenced by factors such as social status, self-perception, lifestyle preferences, and cultural values [2]. This research desires to identify the psychological factors that contribute to the decision to have a SUV in the garage and investigate how these factors influence the relationship between owners and their vehicles by developing a scale of measure [3]. Communication plays a crucial role in understanding and influencing the psychological dimensions of SUV owners. Automobile manufacturers adopt different kinds of communication strategies, which includes advertising campaigns, brand message, and customer engagement initiatives, to establish strong connections with their product customers [4]. Moreover, the cultural context of our motherland significantly influences the psychological aspects of SUV owners. Our nation's diverse society, with its distinct regional, linguistic, and socio-economic features do play an important role in creating the perceptions and preferences.

SUV owners are put into the feeling of safety and security that these vehicles provide them. The bigger in size, high stance seating position, and the structural rigidity in construction of SUVs create a sense of protection and confidence while driving on any road conditions. On the other hand owning a SUV can also stand as a status symbol for many people who associate their vehicle with affluence and success, and owning one can be an image of wealth and stronger social foundation. The ruggedness, off-road capabilities, and all-terrain versatility of SUVs synchronize with individuals who have a strong desire for outdoor adventure activities, long road trips, and exploring new destinations. The owners may perceive themselves as adventurous and free-spirited individuals who cannot be controlled by conventional boundaries.

## **2. LITERATURE REVIEW**

Prasanna Mohan Raj [5] studied the factors influencing customers brand preference of the economy segment SUVs and MUVs founded, the consumer preference over a particular brand can be classified into six factors namely product reliability, monetary factor, trendy appeal, frequency of non-price promotions offered, trustworthiness and customer association towards brand. These factors are taken into consideration by the

manufacturers when creating product innovations in the SUV segment of the Indian automobile market.

Rajani Kant Gupta [1] identified the existing parameters that examines the patterns of consumer preference towards small segment cars in Allahabad. The objective of this paper is to study the influence of brands on consumer buying decisions.

Wu and Ho [10] investigated, which confirmed the positive impact of brand awareness on customers' purchase intention. In [3], brand credibility was one of the determinants of the purchase intention tested in this study. In this sense, brand credibility portrays that the reliability, specialization, and sympathy of the brand gets transferred to the product. Besides, it accumulates information that can influence future considerations regarding the brand, or product customers choose.

Srivastava and Tiwari [4], studies the consumer behavior for A3 segment vehicles in Jaipur. The study considered Price, Safety, Comfort, Power & Pickup, Mileage, Max Speed, Styling, After Sales Service, Brand Name and Spare Parts Cost as the customer preference parameters. Based on analysis made it was revealed that, while purchasing A3 segment car safety, seating comfort and pricing were the important factors that the buyers get influenced over their car models.

Verma and Rathore [7] studied the rise of the luxury car segment of India as more luxury cars are entering into the Indian markets. It was found that such types of cars were mostly preferred by elite individuals who were desired to differentiate themselves from others in the societal circle. The study also found that factors relating to demographics, socio-culture and customer requirements impacted the choices for those types of cars.

Rahman et al. [6], that demonstrated that brand credibility is highly valuable, increasing customers' purchase intention. Vidyavathi [8] explained that the demand for the small Automobile segment is increasing because of the growing number of nuclear families. Fuel economy and driving comfort are the most important parameters followed by availability of spares and their price.

Wu and Ho [10] disclosed that the perceived innovation can improve the quality of products or services and benefits in advancing the corporate image and attracting potential customers. Wang et al. [9] described that there is a robust relationship between brand awareness and perceived innovation. The researchers mentioned that the product perceived innovation is the customers' subjective evaluation, which comes from their perception of products.

Kim et al. [2] showed that individuals form a high innovation awareness if they are repeatedly exposed to this innovation and develop strong associations with relevant purchase or consumption suggestions

### 2.1 OBJECTIVES OF THE STUDY

To develop a scale of measure to identify the dominant psychological factors that influenced the SUV consumers.

### 3. METHODOLOGY

Quantitative research method was applied to the study using surveys. 102 SUV owners from various parts of Tamil Nādu were taken as samples who were provided with google forms which

consisted of questions which enquired their demographic details and statements related to various psychological aspects of SUV owners. The statements were measured using a 5-point Likert scale (5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree).

### 3.1 DATA ANALYSIS AND RESULTS

Based on the responses selected by the samples, Mahindra is the highly owned company among all the brands that have been listed out in the questionnaire which is followed by Tata Motors and Hyundai respectively. The below table represents the list of brands given in the questionnaire and the recorded number of responses by the samples.

Table.1. Brand

Brand	No. of Responses
Mahindra	31
Tata Motors	17
Hyundai	10
Maruti Suzuki/ Nexa	04
Renault	03
Nissan	03
VolksWagen	06
Skoda Auto	06
KIA	05
Morris Garage (MG)	03
Toyota	04
Citroen	02
Jeep	02
Honda	01
Others	07
Total	102

43 respondents have chosen Mid-Size SUVs. Large size SUVs which are more than 6-seater were the second most type of vehicle chosen by the samples. The data results of the type of SUV preferred by the respondents are listed below.

Table.2. Response

Brand	No. of Responses
Mid-Size SUV	43
Large Size SUV	30
Sub 4 Meter Compact SUV	23
Adventure / Pickup Utility	2
Luxury SUV	4
Total	102

The psychological factors influencing the SUV consumer behavior is attempted to be analyzed using a principal axis factor analysis to classify the existing factors. The statements of the constructs were identified from the review literature [10] which is tailored for this study using appropriate corrections. The items in the instrument were classified into three factors. The factor 1 is

labeled as perceived innovation, factor 2 is labeled as purchase intention and the third factor is labeled as brand awareness.

Table.3. Constructs Operationalization

Constructs	Observable variables	Scale ms	Authors
Perceived Innovation	PIN_1 to 7	1 to 5	[10]
Purchase Intention	INT_8 to 15	1 to 5	[10]
Brand Awareness	BAW_16 to 20	1 to 5	[10]

Table.4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.824	
Bartlett's Test of Sphericity	Approx. Chi-Square	1436.033
	df	190
	Sig.	.000

Table.5. Rotated Component Matrix

Rotated Component Matrix	Component		
	1	2	3
I feel confident when I drive my SUV even at higher speeds	.830		
I feel proud when my SUV is gazed in public	.796		
I compare my SUV to a living being	.735		
I feel using my SUV in all road conditions is easier	.724		
I feel the features provided in my SUV are purposive and practical in real life	.689	.441	
I feel dominant while driving the SUV from a high stance seating position	.655		.421
I feel unique in the public when I drove in my SUV	.513		.446
I don't wish to upgrade to another model/ brand	.441		
I tease others who have a smaller car than my SUV		.830	
My SUV is my status symbol		.740	
My SUV insists me to carryout adventurous activities		.717	
I treat my SUV as my pet		.714	
I feel the color of my SUV stands out of the crowd		.611	.495
I feel my SUV looks aggressive when parked near a smaller car		.603	.481
I feel my holiday trip is complete with my SUV's drive experience	.464	.602	
I feel the color of my SUV adds more ruggedness to its design	.421	.568	.496
I don't like someone damages my SUV			.838
There are similar models to my SUV in other brands			.682
I feel luxurious when I travel in my SUV	.493		.631
I feel safe with my SUV with its safety features	.500		.548

Kaiser-Meyer-Olkin (KMO) is the test conducted to measure how suited the data to be performed using Factor Analysis and it measures the sampling adequacy for each variable. The accepted

KMO values are equal or more than 0.50. Hence scrutinizing and filtering the inappropriate values below 0.5 the confirmatory factor analysis has identified 3 factors respective to the response recorded by the samples.

Table.6. Factor Loadings

Items	F1	F2	F3
I feel confident when I drive my SUV even at higher speeds	.830		
I feel proud when my SUV is gazed in public	.796		
I compare my SUV to a living being	.735		
I feel using my SUV in all road conditions is easier	.724		
I feel the features provided in my SUV are purposive and practical in real life	.689		
I feel dominant while driving the SUV from a high stance seating position	.655		
I feel unique in the public when I drove in my SUV	.513		
I tease others who have a smaller car than my SUV		.830	
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I feel my holiday trip is complete with my SUV's drive experience		.602	
I feel the color of my SUV adds more ruggedness to its design		.568	
I don't like someone damages my SUV			.838
There are similar models to my SUV in other brands			.682
I feel luxurious when I travel in my SUV			.631
I feel safe with my SUV with its safety features			.548

Table.7. Cronbach Alpha

Factors	Cronbach Alpha
F1- Perceived Innovation	0.902
F2- Purchase Intention	0.896
F3- Brand Awareness	0.779

The Cronbach alpha test to measure the reliability of the construct and the results were found significant for the three factors.

#### 4. CONCLUSION

The present study developed and validated a scale to measure the psychological factors influencing SUV consumers' attitude. The scale identified three factors: perceived innovation, purchase intention and brand awareness. The scale demonstrated the level of reliability and validity across the collected 102 samples and contexts. The results revealed that perceived utility and social

status were positively associated with SUV purchase intention. The findings have implications for manufacturers, marketers and researchers who are interested in understanding factors influencing SUV consumer attitude. Further studies can extend the scale by adding more dimensions or items that capture other relevant psychological factors influencing SUV consumer attitude, such as personality traits, emotions, attitudes, or values. Future research can also examine the moderating or mediating effects of other variables, such as demographic characteristics, situational factors, or social influences on the relationship between psychological factors and SUV consumer attitude.

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