

A design analysis of XUV 500 to XUV 700

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Abstract: *The Mahindra XUV700 is a significant progression from the previous model, the XUV500, with advances in design, technology, and keeping in mind the user demands. The paper analyses the transition between Mahindra & Mahindra's two premier models, researching the factors that impacted the creation of the XUV700. The report uses a literature review and analysis to identify important improvements, consumer preferences, and future scope for Mahindra in the competitive SUV category.*

Key words: *Design evolution, performance enhancements, user experience, ergonomics, Brand identity and language, customer feedback, Market trends, Competitive analysis, luxury elements, space optimization, infotainment system, chassis improvements.*

INTRODUCTION

The transition from the Mahindra XUV500 to the XUV700 marks a turning point in automotive design, demonstrating a response to changing market trends and consumer preferences. This article offers a thorough design analysis of these two models, concentrating on essential elements such as design language, functionality, ergonomics, and user preferences. This study seeks to highlight the strategic innovations that distinguish Mahindra's current product and its fit with contemporary automotive demands by investigating how the XUV700 blends innovative technologies and modern aesthetics while improving user experience. Through this analysis, we hope to gain a better understanding of the larger implications of SUV design evolution and how it affects consumer decisions.

OBJECTIVE

To analyse the transition from XUV 500 to XUV 700 model; and to find the difference in terms of design language, technology, and customer centric aspects. This study aims to provide insights into how these cars adapt to consumer preferences while also highlighting areas for development in terms of ergonomics.

METHODOLOGY

This research aims to analyse the design evolution from Mahindra's XUV 500 to XUV 700 by employing both primary and secondary data collection methods. The methodology is structured to systematically examine the design aspects, consumer preferences, and industry trends that shaped the transition between the two models.

The study will adopt a mixed-method approach, combining both qualitative and quantitative data to gain a comprehensive understanding of the design evolution. The research will focus on three key design aspects:

- Exterior Design: Aesthetic changes, aerodynamics, and body structure.
- Interior Design: Cabin layout, material choices, and ergonomic improvements.
- Technological Integration: Infotainment systems, safety features, and smart technologies.

Primary data is collected through surveys, interviews. A structured survey is being distributed among XUV 500 and XUV 700 owners to gather insights on user preferences, satisfaction, and feedback on the design changes. Sample size is minimum 10 participants. The survey is focussed on user perceptions of design changes in terms of aesthetics, comfort, and functionality.

Secondary data is being collected from existing literature, company reports, and industry publications.

Survey responses will be statistically analysed to identify patterns in user preferences and satisfaction with design features across the two models. Techniques such as frequency analysis and cross-tabulation will be used.

Participants will be informed about the purpose of the research, and their consent will be obtained prior to the survey or interview. Data confidentiality and anonymity will be maintained throughout the study.

LITERATURE REVIEW

The Mahindra XUV500, which launched in 2011, transformed the Indian SUV market. However, its long tenure was put to the test when its successor, the XUV700, arrived in 2021. This article will undertake a literature analysis to examine the shift from XUV500 to XUV700, focusing on differences in design language, technology, and customer-centric elements. The review will look at industry papers, automotive magazines, and expert comments to better understand the motivations behind the move and its impact on the Indian SUV category.

(Team BHP, 2015) The XUV500's aggressive and angular form represented a departure from the usual SUV look. However, the XUV700 takes a more sophisticated and futuristic approach. This change is reflected in the XUV700's sharper lines, sculpted bodywork, and characteristic "twin peak" design elements. The revised front grille, slimmer headlights, and a bigger, more intimidating posture all contribute to the XUV700's increased road presence. The new design reflects modern SUV purchasers' increasing desires for a blend of dynamic style and sophisticated elegance.

(MotorBeam, 2017), The XUV500 came fitted with a basic infotainment system that included navigation, Bluetooth connectivity, and a touchscreen display. While deemed revolutionary at the time of its release, the system began to show its age as later models from competitors.

The XUV700 tackles these problems with a fully redesigned interior, providing a more luxury and high-tech experience. The cockpit is dominated by dual HD screens for the infotainment system and digital instrument cluster, resulting in a futuristic and user-friendly design. The materials utilized in the XUV700's interior, such as soft-touch plastics and leather upholstery, are a considerable boost, aimed at competing with more expensive options on the market.

The XUV700 represents a substantial technological jump over its predecessor. It has a cutting-edge infotainment system with a larger touchscreen display, improved connection, and advanced driving assistance systems (ADAS). The XUV700 also has options like a panoramic sunroof, a premium sound system, and individualized driver profiles to improve the driving experience. The use of innovative technology distinguishes the XUV700 as a tech-savvy SUV,

appealing to a younger and more tech-savvy client base.

Mahindra has prioritized customer-centricity with the XUV700. The new model has a more spacious and comfortable cabin, with better sitting comfort, more personalization possibilities, and greater safety features. The provision of several versions and engine options increases flexibility and choice for a wide range of customer requirements. Furthermore, the XUV700 provides a more refined driving experience through improved NVH levels and suspension calibration. The transition from the XUV500 to the XUV700 marks a fundamental shift in Mahindra's approach to the SUV market. The XUV700 reflects a deliberate shift toward a more sophisticated, technologically advanced, and customer-centric vehicle that addresses the changing needs of the Indian consumer. The XUV700's revised design language, expanded technical features, and customer-focused enhancements establish it as a powerful rival in the premium SUV sector.

The XUV700, establishes a new standard for the sector with its AdrenoX-powered infotainment system. This system includes a variety of capabilities, such as Alexa voice commands, seamless smartphone connectivity, and over-the-air upgrades, demonstrating the growing relevance of connectivity in modern vehicles. The XUV700 also features advanced driver-assistance systems (ADAS) such as adaptive cruise control, lane-keeping assist, and automatic emergency braking, establishing it as a tech-savvy SUV destined for the future.

(TeamBHP, 2021), Safety has always been an important element of Mahindra SUVs, and the XUV500 was no exception, with features such as ABS with EBD, airbags, and ESP. However, the XUV700 takes safety to a new level, earning a 5-star Global NCAP certification.

(OVERDRIVE, 2018), The XUV500 had a decent degree of comfort and convenience features, including automatic climate control, electrically adjustable seats, and a sunroof. However, client comments frequently emphasized the need for improved customizing options.

(ET Auto, 2013), The XUV500 was marketed as a value-for-money SUV, providing a combination of amenities, spaciousness, and performance at a reasonable price. This technique allowed Mahindra to

gain a large market share, particularly among price-conscious purchasers.

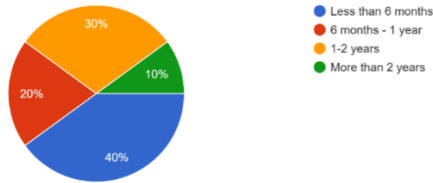
The XUV700 is a huge step forward in Mahindra's SUV lineup, succeeding the XUV500. While the XUV500 established the foundation with its robust design and value-oriented proposition, the XUV700 expands on that legacy with a more refined design language, cutting-edge technology, and a strong emphasis on customer-centric features. This evolution illustrates Mahindra's dedication to remaining competitive in the SUV market by meeting its customers' shifting demands and expectations. The XUV700's success is expected to set new industry milestones, further confirming Mahindra's position as a premier SUV manufacturer.

The chart displayed is called a pie chart, which is used to show the proportional distribution of categories as parts of a whole. Each "slice" of the pie represents a percentage of the total responses for a particular category.

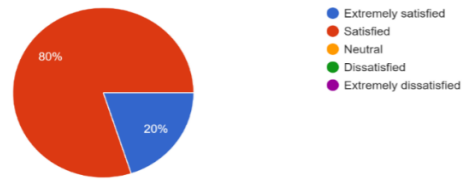
This distribution suggests that a significant portion of respondents (40%) have recently acquired their XUV700, while a smaller percentage (10%) have owned it for more than two years. The chart provides a quick visual summary of how long the respondents have owned their vehicles.

RESULT/FINDINGS

How long have you owned your XUV700?
10 responses



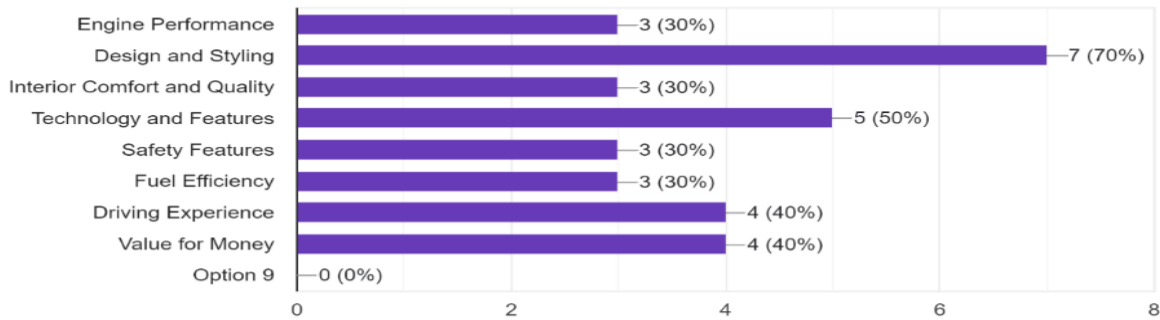
Overall, how satisfied are you with your XUV700?
10 responses



The chart shows that all respondents are satisfied to some degree, with the majority (80%) feeling satisfied, and 20% feeling extremely satisfied. There are no neutral, dissatisfied, or extremely dissatisfied responses in this dataset, indicating a generally positive overall experience among the owners.

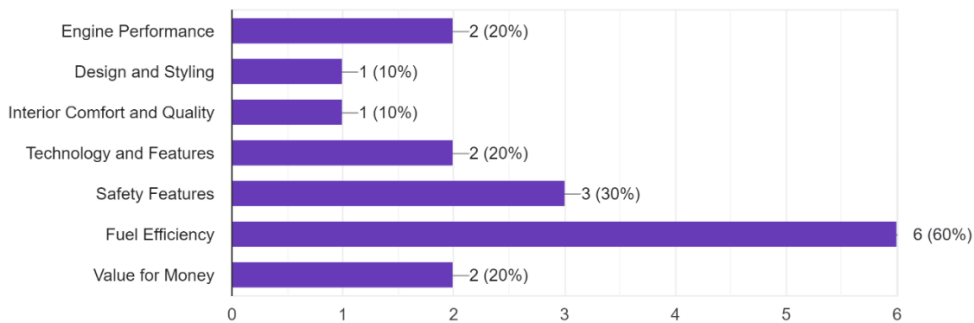
Which aspects of the XUV700 are you most satisfied with? (Select all that apply)

10 responses



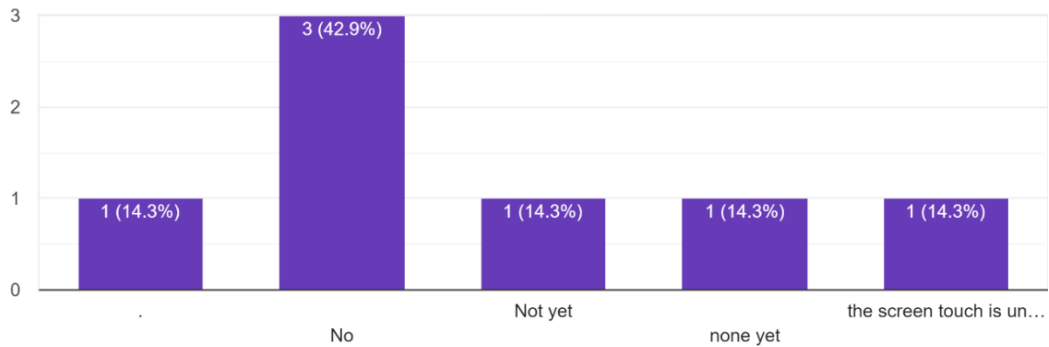
Which aspects of the XUV700 are you least satisfied with? (Select all that apply)

10 responses



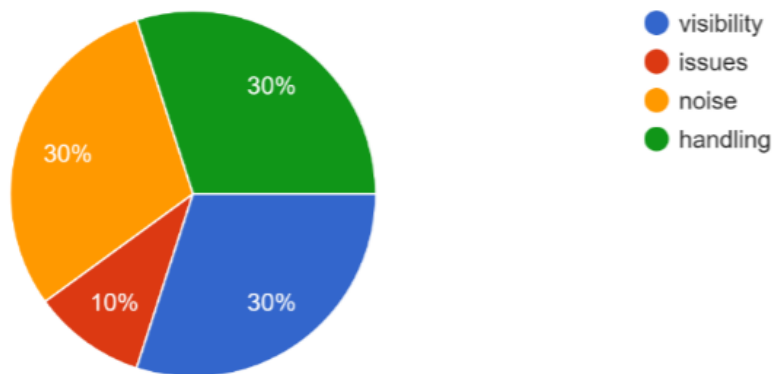
Have you experienced any technical issues or malfunctions with your XUV700? If yes, please describe the issue and how it was resolved.

7 responses



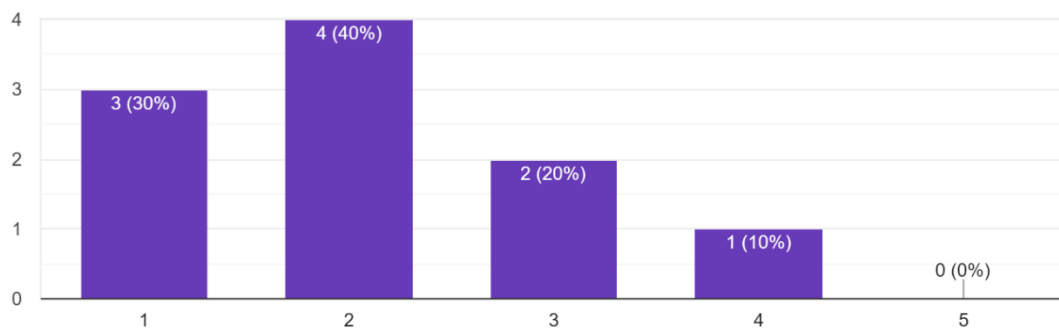
What are the major problems you face while driving the XUV700?

10 responses



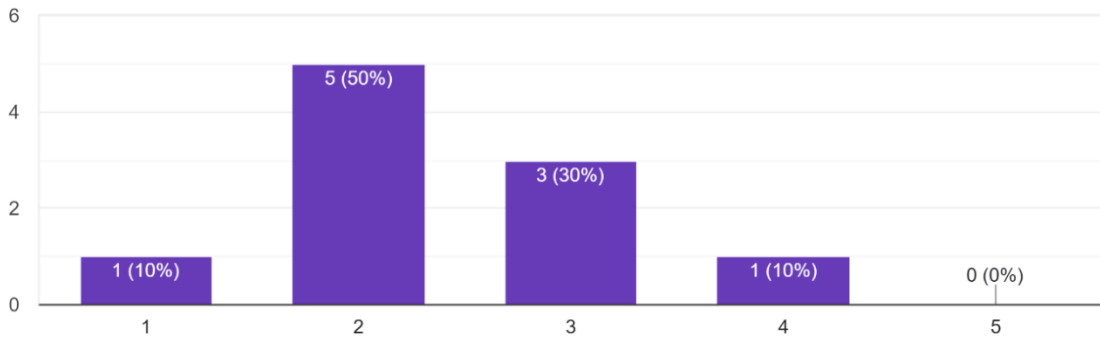
How easy is it to adjust the driver's seat for optimal comfort and visibility?

10 responses



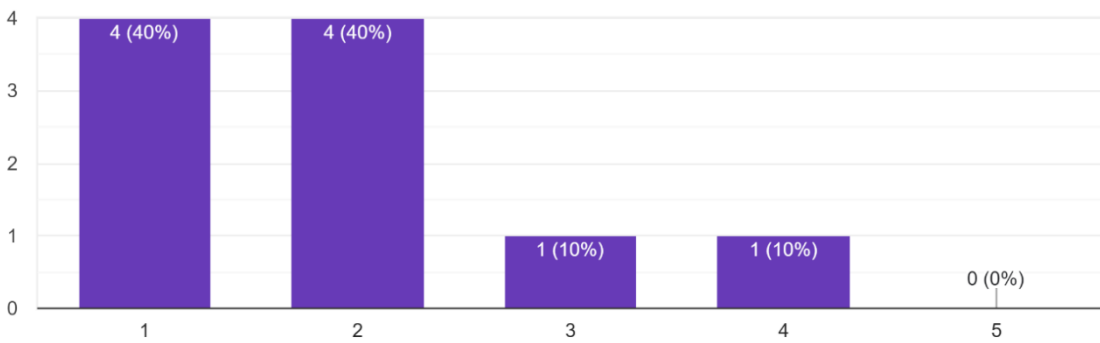
Is the layout of the dashboard and controls intuitive and easy to use?

10 responses



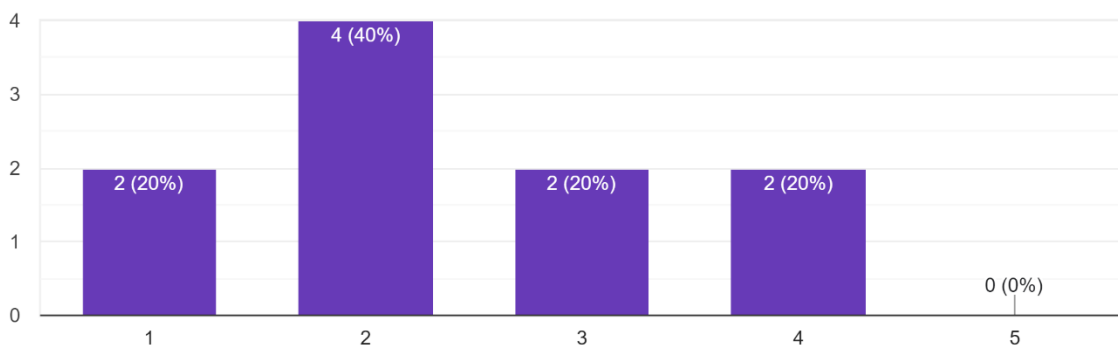
Are the infotainment system and touchscreen controls easy to navigate and operate?

10 responses



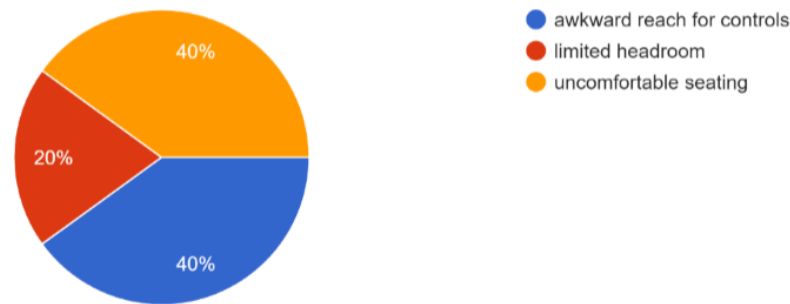
How easy is it to access and use the various storage spaces in the XUV700?

10 responses



Are there any specific ergonomic issues you face in the XUV700 that impact your comfort or driving experience?

10 responses



KEY FINDINGS

According to the Research insights, some people have suggested that the seating comfort should be taken into consideration especially the back row. For this, physical ergonomics should be revisited once again. And the response also came up for noisy car environment due to the engine sound, fuel efficiency should be improved. Second row of the car seat should be recliner.

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LIMITATIONS

The study is going to concentrate at both the XUV 500 and XUV 700, limiting its scope to only two models. External factors, such as market conditions or competitor assessments, will not be thoroughly discussed.

Using both primary and secondary data, this methodology will provide a thorough design analysis of the XUV 500 to XUV 700, highlighting important design transitions and their impact on customers and the automotive industry.

DISCUSSION AND CONCLUSIONS

In summary, the Mahindra XUV500 and XUV700 represent the brand's growth in design and technology, meeting a wide range of user expectations while setting the path for future breakthroughs. As Mahindra continues to adapt to changing market circumstances, the knowledge gained from these models will guide the development of future SUVs that strike a balance between tradition and modernity, assuring long-term relevance in an increasingly competitive industry.

In conclusion, the transition from the XUV500 to the XUV700 is a positive step toward a more premium, technologically advanced design concept. While the XUV700 meets many customer needs with its novel features and modern look, smart design interventions, particularly in terms of ergonomics and distinction, can increase its appeal and keep it competitive in the SUV segment.

ACKNOWLEDGEMENT

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