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Designing the Formal Identity of an Iranian Car (Case Study: Sedan Car Design based on the IKP1 Platform by Iranian Automobile Company)

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Abstract

Brand identity plays a crucial role in car design. In a highly competitive automotive market, brand identity helps cars stand out. This distinction can drive consumer preference and loyalty, and influence purchasing decisions. One of the weaknesses in the design of Iranian cars is the insufficient attention to identity and the failure to follow a clear design direction in the manufactured products. Selecting and analyzing the form of IKCO car designs in this research can provide valuable insights into the company's design philosophy, its efforts to meet the demands of the Iranian market, and its approach to creating a unique brand identity through design. Based on the main hypothesis, strengthening the language of design in the current identity of Iran Khodro's products, on the latest available platform for Iranian automotive companies (IKP1), leads to gaining a competitive advantage in the domestic market, enhancing the brand's mental image, and ultimately motivating domestic consumers and increasing sales. In this research, a combination of quantitative and qualitative methods was employed to gather information. Initially, preliminary information was collected through a review of quantitative data using library resources. In the second part, a questionnaire was designed to understand user preferences in design. Then, through Benchmarking Competitive Analysis and analyzing the obtained data, specific design factors were identified for different generations of Iran Khodro cars. Based on these factors, recommendations were provided for designing a new sedan car and strengthening the brand's design identity. These factors were examined through Exterior Design Analysis, including Proportions, Body Lines, and Front Fascia.

Keywords

Automotive Design, Brand Identity, Iranian Car, Cody Design.

Introduction

Brand identity plays a crucial role in car design for several reasons. In a highly competitive automotive market, brand identity helps cars stand out. This distinction can drive consumer preference and loyalty. Maintaining a consistent brand identity in car design across various models and product lines reinforces the brand's values and promises, fostering trust and reliability in consumers (Aaker, 1996).

Humans are strongly influenced by their emotions. Therefore, building a close relationship between consumers and brands is a key factor for success. Car brands are no exception to this rule and maintain their focus on providing a unique experience for the consumer (Rodrigues et al., 2023). A strong brand identity can create an emotional connection between consumers and the car brand. When design resonates with a brand's core values, it can evoke feelings of trust, luxury, performance, or environmental consciousness, depending on the brand's positioning. Also, well-established brand identities in car design lead to instant recognition, helping consumers identify the brand even in a crowded market place. Cars with strong brand identities tend to retain their value better in the used car market because consumers have confidence in the brand's reputation (Kotler & Keller, 2015). The development of brand recognition requires products that are perceived by consumers over time. Therefore, the main limitation of brand design is to create a clear visual identity for the product that distinguishes it from other related products in the eyes of the audience (Wang & Chen, 2020).

According to Hallam, there are two main design strategies: single-centric and market-centric. Single focus strategy to attract customers who prefer certain design areas. A market-oriented strategy is used to create diverse product designs to meet the needs of different market segments. According to reputation (Kotler & Keller, 2015). companies strategically decide to design products similar to or different from existing products and competitors' products. Therefore, understanding how to design is a key element to understanding the design strategy of companies (Hyun et al., 2015).

Brand identity in car design, brand value, and brand value have a direct impact on sales volume. The results of analysis in the previous research show that brand value and sales are linearly dependent on each other. Therefore, brand value has a direct impact on sales volume (Nadanyiova et al., 2019). Design brand identity can significantly impact car sales in several ways, including enhancing brand recognition that can help make a car brand instantly recognizable, which is essential for attracting consumer attention in a crowded marketplace (Kotler & Keller, 2015). A strong design brand identity can convey a sense of quality, prestige, and value, influencing consumers to perceive the brand's products as desirable and worth the investment (Aaker, 1996). Effective design brand identity can create emotional connections with consumers, fostering loyalty and making them more likely to choose a particular brand when purchasing a car (Brakus et al., 2009). When consumers see consistent design elements across a brand's product lineup, they develop trust in the brand's ability to deliver on its promises, which can lead to increased sales (Aaker, 1996). Designing brand identity helps define a brand's position in the market. Brands that successfully convey their unique identity can attract specific target audiences, leading to increased sales among those demographics (Kotler & Keller, 2015).

Literature Review

Brand Identity in Car Design

Consumers perceive and interpret brand identity in car design through a complex interplay of visual, emotional, and cognitive factors. Several studies have explored how these perceptions influence their purchasing decisions. De Chernatony and Riley (1998) mentioned that consumers often rely on visual cues such as logos, design elements, and style to recognize and associate a car with a particular brand. Existing studies show that in some East Asian countries, consumers buy cars to show their economic power or social status, and actually show their identity with it (Hajin et al., 2021). Brand identity in car design evokes emotions and values.

For example, luxury car designs might aim to convey prestige and status, while eco-friendly designs may evoke feelings of responsibility (Kapferer, 2008). Consumers often associate a well-defined brand identity with quality and reliability. If a brand's design consistently reflects these attributes, it can instill trust in potential buyers (Aaker, 1996). Car choice can be a form of self-expression and social identity. Consumers select cars that align with their self-image and the image they wish to project (Solomon, 2008). A consistent brand identity across a car manufacturer's product line reinforces consumer familiarity and trust. This can influence brand loyalty and repeat purchases (Kotler & Keller, 2015). Consumers often perceive cars with a strong brand identity as having higher value. This perception can justify premium pricing and impact purchase decisions (Brakus et al., 2009). In this research, various articles in the areas of Brand Identity Fundamentals, Automotive Branding, and Consumer Perceptions were examined with a focus on both general principles of brand identity and specific research related to car branding.

One of the potential negative points in car design identity is overreliance on a consistent design language or branding, which can limit innovation and creativity in design. While maintaining a strong brand identity is essential, an excessive focus on consistency may lead to Design Stagnation. Brands that stick too rigidly to their established design identity may find it challenging to adapt to changing consumer preferences or emerging design trends, potentially resulting in outdated or unexciting designs (Kapferer, 2008).

Brand Identity in Iranian Car Design

Brand identity in Iranian car design, like in any other region, plays a pivotal role in shaping consumer perceptions and influencing purchasing decisions. Iranian car manufacturers aim to establish unique brand identities through designs that reflect cultural values, appeal to local tastes, and differentiate them from global competitors.

One of the weaknesses in the design of Iranian cars is the limited attention given to brand identity and the absence of a consistent design direction in the produced vehicles. For instance, in products by Iran Khodro, there has been a lack of the use of distinctive visual elements or design lines right from the outset to differentiate them from other cars. Each of these products, regardless of belonging to a unified brand, follows a different design path.

Iran Khodro Company

Iran Khodro Company (IKCO) is one of the largest and most prominent automotive manufacturers in Iran. Established in 1962, IKCO has a significant presence in the Iranian automotive industry and has played a central role in the development of domestic car production. It has collaborated with various international automakers and has produced a wide range of vehicles under its brand name, including passenger cars, commercial vehicles, and trucks.

Selecting Analyzing the form of IKCO car designs in this research, can provide valuable insights into the company's design philosophy, its efforts to meet the demands of the Iranian market, and its approach to creating a unique brand identity through design. Car design analysis typically involves a detailed examination of various design elements and features that contribute to a vehicle's overall aesthetics and functionality. There are some aspects that you can consider when analyzing the form of IKCO car designs, like Exterior Design, Aesthetic Features, Materials, Interior Design, Functional Elements, Consistency with Brand Identity, Comparison with Competitors, Evolution Over Time and Consumer Perception. In this research, the main focuses are on Exterior Design Analysis (Proportions, Body Lines, Front Fascia), Comparison with Competitors in global markets and identifying areas of differentiation and similarities. Considering whether IKCO car designs are consistent with the brand's identity and how well, reflect the values and image the company wishes to convey and exploring how Iranian consumers perceive the form of IKCO car designs.

Methodology

The present study is a deductive mixing method study that created links between qualitative and quantitative issues. The aim of this research was to investigate whether enhancing and improving the design language within the current identity of Iran Khodro's products would lead to gaining a competitive advantage for the Iran Khodro brand in the domestic market against Chinese cars, enhancing the brand's mental image in the eyes of the audience, and ultimately resulting in increased sales.

To achieve this objective, initial data was gathered by studying quantitative information in this field, using library resources and existing articles. In the second phase, based on the information obtained from the previous stage, a questionnaire was designed to assess and understand user design preferences.

Subsequently, through Benchmarking Competitive Analysis and analyzing the data acquired, specific design factors were identified for different generations of Iran Khodro cars. Based on these factors, recommendations were provided for designing a new sedan car based on the latest available platform for Iran Khodro and strengthening the brand's design identity. These recommendations were examined through Exterior Design Analysis, including Proportions, Body Lines, and Front Fascia.

Participants

In this study, 25 Iranian users were randomly selected (13 female and 12 male) in the age range of 20-40 through online platforms. This questionnaire was designed to gain a better and more accurate understanding of the preferences of Iranian users regarding the form and visual identity design of cars. It includes 19 questions covering areas such as identifying the preferences of Iranian users for car classes, the formal attractiveness of cars from the user's perspective, recognizing the user's preference for body design and car form, assessing the emotional perspective of users toward brands, and identifying the primary challenges in the design of the body form of Iranian cars. Furthermore, questions were posed to identify the aesthetic perspective of users towards currently available Chinese cars in the Iranian market (e.g., Tiggo 8 Pro, Lamari, Phoenix FX, Respect, Arizo 6 Pro, KMC) and domestic cars (Dena Plus, Shahin, Peugeot 207, Tara, Rana Plus) regardless of segments, brands, prices, etc. This was done with the aim of examining individuals' preferences and identifying cars and design styles that are more popular among the public. To gain a more precise understanding of the respondents' perspectives, all questionnaire questions were presented visually using a five-stage Likert scale and descriptive design attributes.

Benchmarking Competitive Analysis

Benchmarking competitive analysis is a systematic examination of an organization's performance, processes, and strategies in relation to its direct industry competitors (Camp, 1989). This comparative analysis aims to uncover relative strengths, weaknesses, and opportunities for gaining a competitive advantage. By assessing how a company measures up against its peers, it facilitates data-driven decision-making and the development of strategies to enhance competitiveness (Fitzgerald et al., 1991).

The chosen car for this research falls within the classification of compact urban sedans. To conduct competitor analysis, six rival cars were selected based on their classification and having dimensions closest to the platform under consideration in this study. These selections were made according to the perspectives of the websites Automoblog and CAR and DRIVER for the years 2023-2024. The selected cars include: Honda Civic 2024 (Best in various aspects), Mazda 3 Sedan 2024 (Best in terms of style), Toyota Corolla 2024 (Most reliable), Volkswagen Jetta 2024, and Nissan Sentra 2024. Additionally, Saipa Shahin and Chery Arrizo 6 Pro were included as the closest domestic market rivals in this list. Table 1 provides a visual and specifications of dimensions and prices for each of the selected cars.

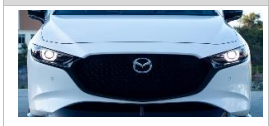
Table 1: *Benchmarking competitive analysis selected cars.*

Benchmarking Competitive Analysis Selected Cars	Wheel Base	Length	Height	Width	Horsepower	Torque	Price
 Ikco TARA	2655 mm	4442 mm	1446 mm	1748 mm	New engine (EFP) 165 HP	240 Nm	16.000 $
 Mazda 3 2024	2700 mm	4579 mm	1455 mm	1795 mm	190 HP	250 Nm	23.715 $
 Toyota corolla 2024	2700 mm	4630mm	1435 mm	1790 mm	169 HP	204 Nm	22.795 $
 VW Jetta 2024	2686 mm	4702 mm	1459 mm	1799 mm	158 HP	250 Nm	20.650 $
 Honda Civic 2024	2735 mm	4673mm	1414 mm	1800 mm	158 HP	187 Nm	25.015 $
 Nissan Sentra 2024	2712 mm	4640mm	1445 mm	1816 mm	149 HP	197 Nm	21.295 $
 SAIPA Shahin 2024	2650 mm	4446mm	1490 mm	1771 mm	110 HP	178nNm	11.200 $
 CHERY Arrizo 6 pro	2650 mm	4644mm	1493 mm	1814 mm	156 HP	230Nm	14.500 $

Result

Based on the information obtained from the first part of the research and the analysis of questionnaires, nine design factors (including innovation, side view reflections, character line placement, design proportions, car character, rear view design, rear light design, grille and front light arrangement, and rear light design) were considered for benchmark analysis and comparison of the selected cars. Each of the selected cars was rated on each of these factors using a scoring system ranging from 1-4. A score of four indicates a favorable design status (represented by the color green), while a score of one indicates an unfavorable design status (represented by the color red).

Table 2: *The scoring table for benchmark analysis.*

	Innovation	Side View Reflections	Character Line Placement	Design Proportions	Dar Character	Rear View Design	Rear Light Design	Grille & Front Light Arrangement	Rear Light Design
	4	4	4	4	4	2	2	4	3
	3	4	2	3	4	2	3	4	3
	1	2	2	4	3	2	3	3	4
	3	4	4	4	4	2	3	3	3
	3	2	1	3	3	4	4	4	3
	1	1	1	3	2	2	3	1	2
	2	1	1	2	3	4	4	1	4

Based on the results obtained from benchmark analysis, overall, the highest design style and body form scores belong to Mazda 3 and Honda Civic, respectively. Notably, there is a clear innovation in the body design of Mazda, especially compared to its previous generations.

Regarding the data on the macro design style of cars, it is observed that the most conservative design style belongs to the Volkswagen Jetta, which follows a classic and boxy shape in line with the distinct identity of Volkswagen and Audi. On the other hand, the most intricate and detailed design styles belong to Nissan and Toyota Corolla, respectively. Toyota, in its new generation, has transitioned from simple and boxy forms to a design with many visual elements.

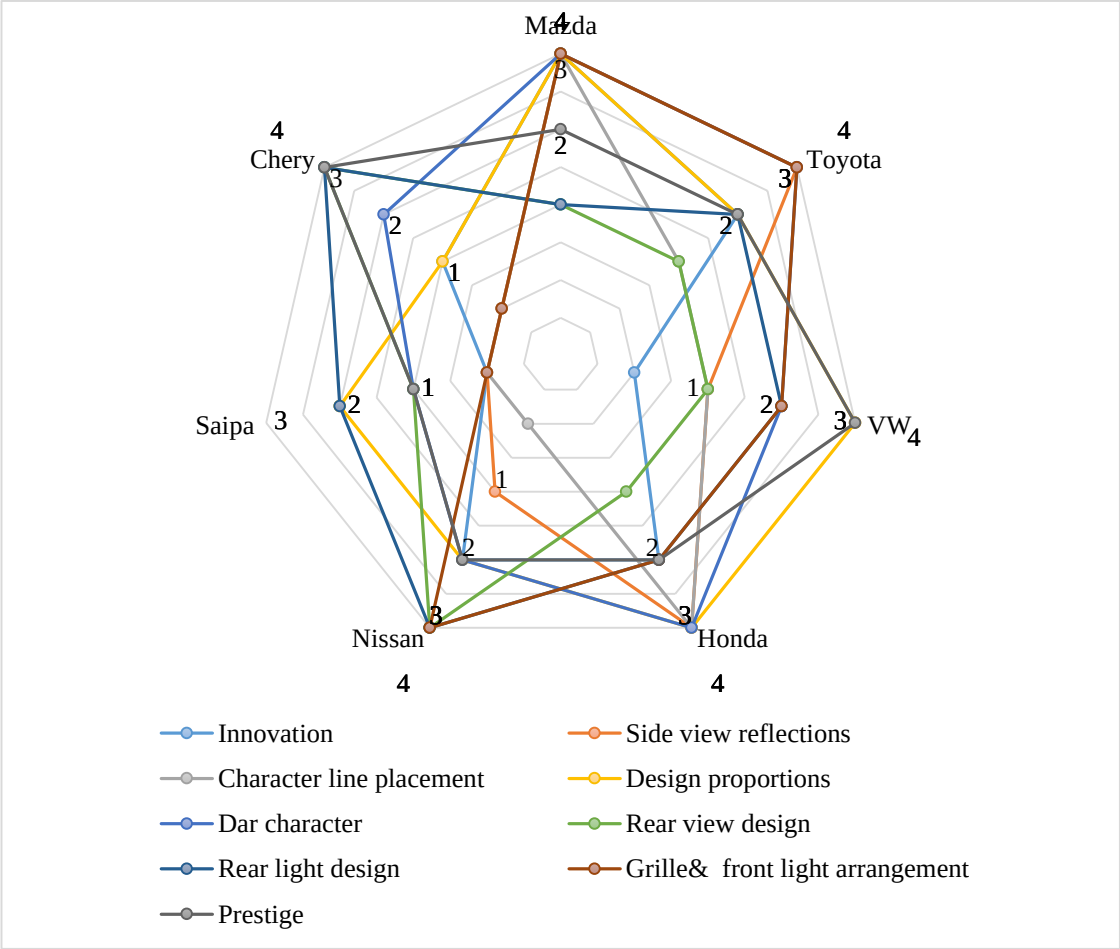


Figure 1: *graphical display of benchmark analysis.*

Concerning the micro-design elements of car bodies, the most innovative arrangements of the grille, headlamps, and taillights can be observed in Mazda, Nissan, and Toyota Corolla. However, the excessive use of sharp lines in the body design, especially in the side view, may have limited long-term appeal in the case of Nissan.

In terms of design proportions, it is noted that, despite the aesthetic design of the rear lights in Chery Arrizo, due to a lack of harmony in dimensions and proportions between the central, front, and rear parts of the car, this vehicle receives a very low score in terms of design proportions.

In this aspect, Saipa Shahin receives the lowest score. Despite good proportions in the middle and front sections, there is a lack of innovation in its design, and its design elements are outdated.

Analysis and Examination of Iran Khodro's Design Language

In this section, given the focus of this research on the design of Iranian cars, we conducted a formal analysis of Iran Khodro's car designs using Exterior Design Analysis, which encompasses Proportions, Body Lines, and Front Fascia. This analysis allowed us to identify design factors. The analysis was divided into three main sections, examining the formal design of Iran Khodro's cars from their early generations to the present day. These sections included an examination of the design of the front view, character lines on the side view (Figure 2), and the rear design of the cars (Figure 3).

In this analysis, we scrutinized:

- Proportions: We assessed the dimensions of the cars, including their length, width, and height, to determine whether the proportions were balanced and aesthetically pleasing.

- Body Lines: We examined the body lines, curves, and contours of the car's exterior, evaluating how these lines flowed and contributed to the overall form of the car.
- Front Grille Design: We assessed the design of the front grille, considering the evolution of grille designs across different car generations.

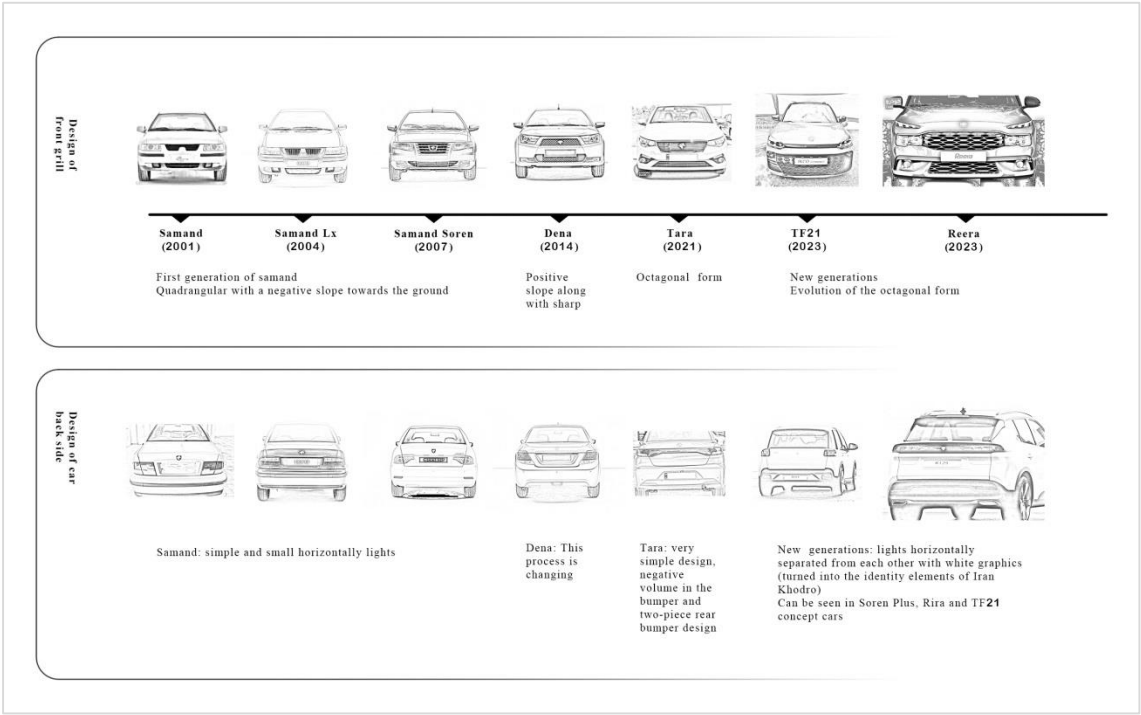


Figure 2: *Analysis of Iran Khodro's Design Language, front view and character lines on the side view.*

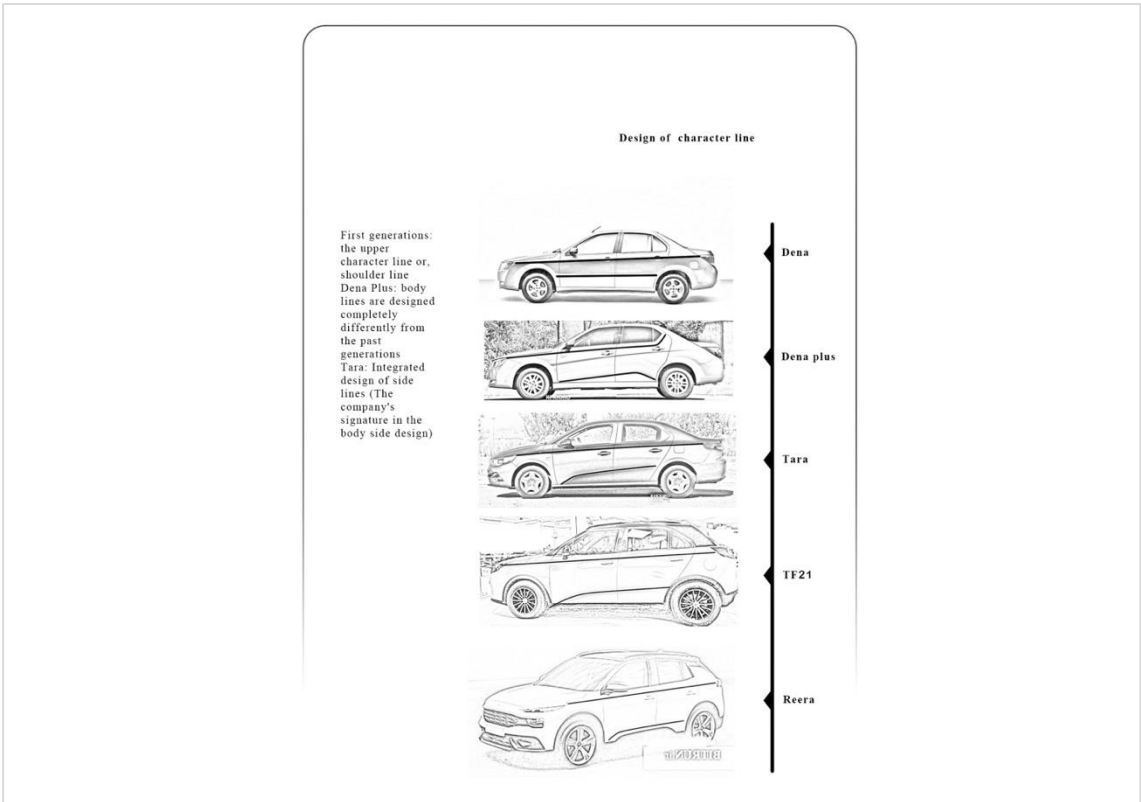


Figure 3: *Analysis of Iran Khodro's Design Language, front view and character lines on the side view.*

In general, the design language of Iran Khodro can be divided into two periods: before and after the design of Tara. Although Tara's design had many fundamental flaws, such as the mismatch between the Greenhouse form and the lower part (Greenhouse with smooth forms and a boxy body with sharp lines), as well as the graphic design of the rear lights and the elevation of the shoulder line, making the car appear narrow and tall, the subsequent improvements in form and the replacement of soft and flowing surfaces with sharp and boxy lines, along with the application of this style to the brand's two latest products, have laid the groundwork for establishing a consistent design trend and its evolution in future generations.

Design Suggestions

It's worth mentioning that the available platform is narrower and has a taller body compared to most of its narrow-bodied competitors, especially evident in the rear view, and it doesn't take full advantage of the proportions for a more aesthetically pleasing look, as seen in its rival cars. This has been considered in the design, particularly in the front window form, the way it's combined with headlights, and their placement in the widest possible manner (as long as there are no restrictions). Additionally, the design and choice of rear lights (in addition to following Iran Khodro's design language) make the car appear wider than it actually is.

Figure 4: *New suggested Sedan car design based on the IKP1 platform by Iran Khodro.*

Lowering the character line and the type of recessed line on the C-pillar (which is a kind of innovation in the body form and can't be seen in any other car) helps to make the side view lighter and compensate for the car's height. Moreover, the design of the rear bumper and diffuser, which has become part of Iran Khodro's design language, contributes significantly to reducing the rear height (Figure 4).

Discussion and conclusion

In the context of car design, creating a brand identity is not just possible by presenting a design; it requires following the right path, understanding the needs of communities, examining global design trends, collaborating with major brands, and leveraging advanced platforms from parent companies and evolving them over time to achieve the desired goal.

The biggest design issues for Iranian car designs, as identified in this study, include the lack of design proportionality, excessive similarity to other car manufacturers' products, outdated platforms, the absence of a consistent design language, lack of modernity in design, and neglect of details in design.

Also, one of the serious challenges in the Iranian automobile industry is that, despite the economy of subcompact and compact cars in the global automobile industry, there are no mid and full-size sedans in the Iranian automobile industry, and all the families of Samand, Dena, are classified in the compact segment and cashiers Peugeot 206, Rana, etc. are classified in the sub-compact category.

To address these challenges, based on the analyses conducted in this study, five key design factors were extracted:

1. Maintaining and visually strengthening the octagonal form of the front window and integrating it with the main lights in such a way that this very important element in the front of the car makes the overall character of the car simpler and in the direction of shape current trends. Also, using a large grill in such a way that it can supply the air needed to provide cooling for the EFP engine.

2. Simplicity, fluidity and the use of smooth forms are in accordance with the new design process of this company.

3. Maintaining and strengthening the tread line and character line, as well as the reflections of the side view, which should include a sideline throughout, as well as embedding the form of the tread line that is repeated in new products. This factor can be considered as a main element in the design of new generations.

4. Maintaining the overall geometric form of the car and avoiding the box-shaped state of the old generations, without changing the greenhouse of the car, so as to avoid spending a lot of money on changes in the greenhouse.

5. Maintaining the triple-D light elements in the front and rear of the car in a way that is according to the new design process of this company.

Also, according to the evaluation of the authors, factors 1 and 2 were determined as the most important design priorities, factors 3 and 4 were determined as the next level of priority, and factor number 5 was determined as the last design priority.

Constraints

In this study, due to cost reduction, the design of the sedan car was based on Iran Khodro's IKP1 platform without any changes in dimensions and sizes, as well as the Greenhouse of the car. Comparing the body dimensions with other cars in the same class in global markets reveals that this platform is slightly smaller in width and slightly taller in body height, and it has an economical appearance. Therefore, it should be considered in the design so that the final design appears wider, especially in the rear view.

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