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Evaluation and Aesthetic Preference Judgments in User Response to Industrial Product

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ABSTRACT

This study discusses the critical role of aesthetics in influencing consumer evaluations and preferences of industrial products. With design being a key differentiator in competitive markets, the study explores how aesthetic elements interact with user responses. The study focuses on the components of aesthetic evaluation, including visual consistency, usability, and cultural influences, and their impact on consumer behavior and emotional engagement. The research relied on a structured questionnaire distributed to 110 undergraduate design students, where the relationship between aesthetic appeal and factors such as ease of use, cultural relevance, and emotional stimulation was quantitatively analyzed. The results highlight the importance of visual elements—color, shape, and texture—in attracting consumer attention and promoting positive perceptions. It was also shown that aesthetic design evokes positive emotions, improves usability, and enhances brand loyalty. In addition, cultural context plays an important role in shaping users' perceptions of aesthetics, underscoring the need for culturally sensitive design strategies. The study concludes by calling for a balanced design approach that combines innovation, simplicity, and visual consistency, in line with consumer expectations and enhancing product competitiveness.

Introduction

In today markets, Consumers are faced with a variety of products. Therefore, Differentiation factors are very important in consumers' evaluations of products in such markets, and design stands out as a major differentiator between products. Product design is also accepted as a fundamental tool for attraction, communication, and value creation. As a result, product design is an important source in achieving a competitive advantage among other products of the same type. Product design involves the formation of visible and invisible elements. Among them are aesthetic elements. By using these elements in product designs more and more, companies are trying to influence consumer evaluations and judgments. Such activities fall within the scope of artistic formation in design. Artistic fusion represents the effects of using artistic elements in product design on consumer perceptions and product evaluations. As art has become a part of daily life, artistic formation processes have become a powerful tool for design (Gürşen et al., 2020, p. 230).

Research Problem

product design aesthetics are a critical determinant of consumer choice. Consumer responses to products may be determined not only by their superior quality, but also by their highly aesthetic and distinctive designs. According to this background, the areas of when and why consumers are influenced by designs with high aesthetic values have emerged as a fertile area of research. Simply, consumers show a greater preference for aesthetically appealing products. Product design attractiveness also predicts the success of a product in the marketplace. However, while the effects of product aesthetics on consumer pre-purchase preferences and choice are well documented in the literature, current research has largely failed to consider how product aesthetics influence user's aesthetic evaluation and judgment of a product.

At the aesthetic level, we consider a product's ability to please one or more of our sensory inputs. A product can look good, make a pleasant sound, feel comfortable to the user when touched, or even smell pleasant (leather products, for example). The degree to which the cognitive system manages to detect structure, arrangement or consistency and evaluate the novelty or familiarity of the product usually determines the resulting effect. According to the above, the research problem is determined in the following question: - **What is the role of the evaluations and judgments determined by user concerning aesthetic preference of industrial product?**

Research significance

stating the effects of the design with good aesthetic value of the industrial product in determining positive levels of evaluation and aesthetic judgment of the user. Which can be used to enhance the design variables of industrial products in a way that enhances the overall level of the product's aesthetic frameworks.

Research objective

- identify the basic elements of user evaluations and judgments that contribute to activating positive response frameworks for products aesthetic values.

Research limitations

- **Objective limitations**: studying the variables of evaluation and aesthetic judgment of industrial product design.
- **Spatial limitations**: Various industrial products from the Internet. And a group of users represented by students of the Design Department, preliminary study/Industrial Design - College of Fine Arts - University of Baghdad.
- **Temporal limitations**: 2024-2025.

Definition of Terms

Aesthetic evaluation: Evaluation is a systematic process of determining the merit, value, or importance of an object. Evaluation is the process of identifying, obtaining, and providing useful information for judging decision alternatives (Patton et al., 2018). Evaluation refers to the process of evaluation typically involves the identification of some relevant criteria of merit, value, or importance; some investigation of the performance of the evaluations on those criteria; and some integration or synthesis of the results to produce an overall evaluation or set of related evaluations (Stufflebeam, 1973).

Aesthetic judgment: These are specific judgments that are neither judgments claiming knowledge of the subject nor expressions of personal inclinations but are common to both. Aesthetic judgments in the form of "this is beautiful" are like personal expressions in that they express a kind of internal, subjective response. Kant believes that "beauty is not a thing in itself, without its relation to the feeling of self" (Kant, 2000, p. 103).

2. Previous Studies

2.1 Jasim Khazaal Baheel's study, entitled: (**Industrial Design Aesthetics in Light of Modern Interaction Theories**), PhD Thesis (Unpublished), Department of Design, College of Fine Arts, University of Baghdad, 2013. (Baheel, 2013)

The study problem was based on the question of whether the interactive process between the user and the industrial product has an aesthetic value that can be felt, including all the user's sensory, cognitive and emotional faculties? Is it possible to adopt specialized interaction theories that represent a comprehensive aesthetic base? The study aimed to: Identify the interaction theories that represent an introduction to the aesthetics of interaction and unify them in a way that represents a deduction of aesthetic communication channels between the user and

the industrial product. The study addressed the topic of interaction aesthetics by studying three theories (affordances theory, activity and symbolic interaction theories), each of which represented important inputs to the aesthetics of interaction in industrial design. The study concluded that aesthetic feeling stems from the ability of products to express the individual self of the user in social contexts, through the projecting of user values and beliefs onto the features and characteristics of the product and adopting them to be an expression of self in the social context.

Discussion: The previous study comes close to our current study in its approach of the subject of aesthetics of industrial product in terms of the interaction and impact that the product has on the users' sensory, psychological and social levels. However, it differs from our study in that our current study focuses on preference and aesthetic evaluation judgments, which are based on judgment variables and factors that help or motivate aesthetic preference.

2.2 Homburg, C., Schwemmle, M., & Kuehnl, C., study entitled: (**Product Design: Concept, Measurement and consequences**), Journal of Marketing, Vol. 79, No. 3, 2015, pp. 41-56. (Homburg et al., 2015).

The study was based on the problem of the lack of a precise definition and clear measure for industrial product design with its aesthetic, utilitarian and symbolic dimensions. It aimed to find a comprehensive measure for product design from the consumer's perspective according to the variables of beauty, function and symbolism, and to show the relationship between these variables and consumer behavior. The study dealt with product design as "a multidimensional structure of structural elements that includes three structural dimensions represented by (aesthetics, functions and symbolic elements)." As these foundational elements can be visual or invisible. Moreover, the study found that design and aesthetics are naturally related, as product design includes the aesthetic aspects of the product. And beautifully designed products have significant effects on forming first impressions and gaining fame in the market. As a product with good aesthetic values affects consumer evaluation. The study concluded that visual aesthetics have a symbolic function that influences how a product is perceived and evaluated. Therefore, the use of aesthetics as a visual element in product design is likely to influence consumer reactions.

Discussion: The study is close to our current study in its approach to aesthetics variable as one of the determining elements in influencing the consumer and his/her decision to purchase products, but differs from it in that our study focuses on the mechanisms of the user's aesthetic judgment in his choice and preference for products according to their aesthetic variables and how the aesthetic judgment is formed.

3. literature review

3.1 Industrial product design

Industrial product design is the primary concern of design and most product-person relationships (i.e. interactions) begin with (visualization of) the industrial product design. Product design plays an important role in communicating the identity, functionality, and use of the product to consumers. The visual appearance of products is a critical factor in user response and product success (Crilly, Moultrie, & Clarkson, 2004, p. 551). Therefore, understanding how users perceive and feel about product design is of paramount importance when developing a new product (Desmet, Tax, & Overbeeke, 1999, p. 37). "Industrial product design represents several elements selected and combined into a whole by the design team to achieve a certain sensory effect. These elements include the perceptual properties of the product, such as 'shape, scale, rhythm, proportion, materials, color, reflection, ornament, and texture" (Bloch, 1995, p. 17).

perceived qualitative values

Received qualitative values are consumers' evaluations and judgments about the distinctiveness or superiority of a product. perceived qualitative values differ from objective values. Consumers' evaluation of a product or brand is influenced by factors such as price, product features, packaging, branding, advertising activities, word-of-mouth, and previous purchasing experiences (Zeithaml, 1988). The appearance of the product also greatly affects consumers' perception of received qualitative values.

The relationship between product design and values affects the consumer's perception of qualitative values, their features, and characteristics, and the extent of his acceptance or rejection of the product. The quality of the product affects the consumer's personal evaluation of its attractiveness and the methods of enjoying interacting with it. Some studies have shown that the effect of the shape, color, and size of products varies from person to person and affects consumer preferences. In addition, the color and shape of the product affect the perception of qualitative values and purchase preference (Gürşen et al., 2020, p. 233).

The centrality of aesthetic values to users

The aesthetic value of products has been studied in different areas of design research. Products with good aesthetic values are defined as products with visual elements that evoke positive emotions. The five senses can perceive differences in the design of these products. The aesthetic perception of a product and its appearance are related to both luxury and artistic products as well as products designed for everyday use. Ultimately, the aesthetic perception of a product and its appearance are important factors that combine luxury and art. The relationship between the emotional impact resulting from aesthetics and creativity confirms that creativity can be an essential tool in today's economy based on value creation (Vilches-Montero et al., 2018).

However, while the effects of product aesthetics on consumer prepurchase preferences and choice are well documented in the literature, existing research has largely failed to consider how product aesthetics influence actual usage behavior. For example, assuming a consumer purchases an iPhone because of its attractive design, will he/she also use the phone more frequently to experience the aesthetic pleasure provided by the design? And how will this increased usage influence Users preferences and willingness to switch to a competitive smartphone? In this study, we hypothesize that the aesthetic aspects of product design may be associated with usage behavior and consumer preferences toward products. Specifically, we hypothesize that consumers tend to use products with visually appealing designs more intensively than those with less attractive designs. This increased intensity of usage is likely to lead to the development of specific product-specific usage skills, contributing to the formation of "cognitive lock." This cognitive lock reduces the likelihood that consumers will switch to an alternative product, given their acquired ability to operate the current product more efficiently (Wu et al., 2017). In short, we emphasize that product designs are not only a source of aesthetic pleasure but can also contribute to enhancing Users attachment to a product through increase of use. We called this "the effect of a esthetic loyalty".

Product aesthetics refers to the beauty of external appearance of a product, where aesthetics can be classified into three possibilities:

1. Being an inherent property of the product itself.
2. Being a result of consumer perception.
3. Being a combination of both aspects.

In this paper, we adopt the third perspective, which views product aesthetics as the result of an interaction between the distinctive design elements of the product (such as color, shape, pattern, or materials that make up the outer structure) and the sense of beauty or attractiveness that these elements evoke in the eyes of the consumer.

The perception of product aesthetics is, in essence, closely related to the emotional response of the perceiving self. This emotional response ranges from a simple state of admiration stemming from the sensory appreciation of the product to deep emotional experiences that are equivalent in their impact to those caused by immortal masterpieces of art, with their existential richness and meanings that transcend the senses (Bloch, 1995). Accordingly, aesthetic emotions emerge because of a continuous evaluation process, characterized by harmony and satisfaction with the aesthetic stimulus. This model reflects a perception that goes beyond the sensory dimension to an in-depth analysis of the relationship between the self and the aesthetic subject as an ongoing dialogue between perception and emotion (Leder et al., 2004). The hypothesis that consumers are drawn to aesthetic designs because of their affective nature is consistent with the conceptual framework of the hedonic perspective on consumption. This perspective views the emotional and sensory dimensions of consumption as a "primary process" aimed at achieving immediate gratification. In this context, the consumer is conceptualized as a pleasure-seeking being who selects and uses products as a means of satisfying his or her ongoing need for emotional stimulation. According to the hedonic principle, aesthetic cues that are pleasurable may enhance the natural human desire for emotional stimulation.

In a related context, research in the field of neuroscience has supported this trend, as functional magnetic resonance imaging studies have shown that aesthetic stimuli have pleasurable and rewarding features. Aesthetic perception has been shown to activate reward circuits in the brain, generating a dual feeling of "liking" and "wanting." According to the cognitive frameworks of current research, this link between aesthetic perception and emotional reactions is of particular importance, as products with good aesthetic values can produce a tangible behavioral response. In other words, as individuals seek to feel the pleasure provided by an attractive product, they are likely to adjust their usage patterns to match this goal, highlighting the behavioral impact of the aesthetic experience (Wiecek et al., 2019, p. 544). In this context, the positive effect resulting from products with high aesthetic appeal may lead consumers to engage in activities that reflect attraction to the product, such as continuing to watch, listen, or even touch the product. The user's experience of pleasure can indicate that he or she enjoys the product, which may lead to an extension of its usage. According to this argument, the time devoted to a particular activity has long been considered an indicator of the hedonic response. Similarly, persistence in performing a voluntary activity is one of the most important measures of individuals' enjoyment or intrinsic motivation. Thus, continued and voluntary engagement in interacting with the product is closely related to the level of pleasure experienced by the user, reinforcing the status of beautiful products as a motivating factor for positive consumer behavior (Bloch, 1995, p. 20).

Evaluation and aesthetic judgment

Evaluating a product can be viewed as a cognitive state , as it relates to a purely intellectual process rather than actual behavior. Some studies have found that users' attitudes are directly influenced by evaluations based on descriptive, inferential, and informational cues. These evaluations serve as cognitive inputs that shape attitudes by analyzing the perceived characteristics of the product and their impact on consumers' opinions (Gürşen et al., 2020, p. 234).

Product evaluation is widely studied in literature because it affects concepts such as product preference and product acceptance or rejection. In some studies, product evaluation is also used instead of concepts such as product preference and purchase intention. In addition, since the evaluation of a product or brand affects the evaluation of a new product or brand that will be launched in the future, product evaluations have become a more important topic (MacInnis & De Mello, 2005, p. 6). According to the aesthetic appreciation and judgment model proposed by (Leder, Belke, Oeberst, and Augustin), the aesthetic experience involves a series of five processing stages (Leder et al., 2004, p. 501):

- **Perceptual analysis**: where viewers analyze the complexity, contrasts, symmetry, order, and category of the industrial product.
- **Implicit memory integration**: which includes familiarity and prototype.
- **Explicit categorization**: which concerns content and style.
- **Cognitive mastery**: where viewers gain understanding of the product through their knowledge and experience.
- **Evaluation**: which is the stage in which the user evaluates whether he has understood the product. He feels emotional satisfaction after having gained pleasure from the experience. There are two independent outputs of the model: aesthetic emotion and aesthetic judgment.

On the other hand, Kant discussed the concept of beauty as an integrated unit or "purposeless goal," emphasizing that the experience of beauty during aesthetic interaction is not related to function or practical purpose but rather stems from the appreciation of pure form. Accordingly, the viewer's appreciation of the artwork, his acceptance of its aesthetic value, and his enjoyment of it generates a positive aesthetic experience that is a source of intrinsic motivation.

In the context of art auctions, cognitive and personal factors play a fundamental role in the decision-making process. The final bid on a work of art does not only express the apparent beauty of the work but also embodies the taste and mental state of the bidder, as its cognitive and emotional dimensions constitute an essential element in determining the overall value of the artwork. Therefore, the bidding process depends on a complex interaction between intuition and rationality, as both work together to guide the bidder towards his final decision (Chai et al., 2016, p. 544). This is a case like the processes of acquisition and purchase and the equation of price versus the value obtained from the product.

On the other hand, cultural differences affect the aesthetic appreciation of industrial products. Researchers have pointed out that there are cultural differences that affect cognitive activities related to aesthetics. For example, culture can play a pivotal role in shaping the aesthetic experience, as it affects both the perceiver (the person who experiences beauty) and the perceived (the thing whose beauty is experienced) (Nisbett & Masuda, 2003). Cultural cues have also been found to have a significant effect on individuals' aesthetic preferences regarding different forms (Zhang et al., 2006). Thus, the ability to recognize cultural variables may be a key factor in shaping aesthetic tendencies. Other studies have shown that individuals from Asian cultures tend to engage in context-dependent cognitive processes when interacting with representational works, meaning that they show greater attention to contextual information than their Western counterparts. These studies have attributed these differences to cultural differences in attention patterns. Individuals from Asian cultures tend to adopt a holistic sensory perception that integrates the surrounding context, whereas Westerners tend to adopt an independent, analytical sensory perception that focuses on individual entities in isolation from context (Chai et al., 2016, p. 545).

Design and User Evaluation of Product Aesthetics

Consumers maintain mental models of each product category they consider. We think of products as sharing aesthetic features that individuals can interpret in consistent ways (Coates, 2003). For example, most consumers tend to agree that the Apple iPod has a "uniform, balanced, and simple appearance," yet individuals may differ in how much they accept or appreciate each of these aesthetic features, as well as in the degree of contrast they find pleasing or acceptable. From this perspective, we can assess perception using differential semantic measures of a related set of aesthetic dimensions associated with the product, along with the category stereotype and the category ideal. We can then use this data to calculate several types of perceptual distances and locate each object within a given perceptual space.

The first distance of interest is the perceptual distance between the product and the stereotype, which can be thought of as a measure of novelty. The second measure expresses the perceptual distance between the object and the ideal, which can be thought of as a measure of design compatibility (i.e., harmony and beauty). Consumers consistently rank aesthetics among the top three attributes in product selection. For example, in categories such as home appliances, aesthetics helps companies create product differentiation beyond functional attributes; for example, the Dyson DC01 vacuum cleaner (Figure 1) used a transparent design to communicate its complexity to consumers, helping it becomes the best-selling vacuum cleaner in the UK. Visually appealing products and packaging prompt consumers to choose one product over another, particularly at the point of purchase in busy stores, supermarkets and online retailers (Burnap et al., 2019, p. 1).

Figure (1): Dyson DC01 vacuum cleaner

Developing product aesthetics can require significant investment, yet there are returns on investment across markets. A study of 93 companies across nine product categories found that companies that invested heavily in aesthetic values had 32% higher profits than industry averages. In the automotive industry, product aesthetics can explain up to 60% of purchase uncertainty for certain segments. Automotive design has a significant impact on market performance, largely through influencing consumer interest (Rubera, 2015, p. 101). For example, the 2008 redesign of the Buick Enclave (Figure 2) led to a 30% increase in sales over the Buick Rendezvous (Figure 3) it replaced, and the 2005 redesign of the Volkswagen Beetle led to a 54% increase in market share in just one year. On the other hand, the visual appeal of the 2001 Pontiac Aztek was cited as a reason for its lack of market success. It's no surprise that automakers invest heavily in design and redesign - $1.25 billion on average with up to $5.7 billion invested in critical designs.

Figure (2) shows the new design of the 2008 Buick Enclave.

Figure (3) shows the design of the 2008 Buick Rendezvous

Traditionally, human judgment has entered the scope of aesthetic product design in at least two ways. While there are established aesthetic guidelines and cognitive design principles, aesthetic design is often created and examined by design teams that have an “eye” for visual design. Design teams are powerful within organizations; their aesthetic judgments are difficult to overrule (Vlasic, 2011, p. 152). Human judgment also influences aesthetics through consumer evaluations. Companies often ask consumers to evaluate alternative designs in lab testing markets, A/B testing, or “specialty clinics.” In a typical automotive clinic, a few hundred target consumers are recruited and brought to a central location to evaluate aesthetic designs. Consumers view aesthetic designs and evaluate them based on specific criteria such as semantic measures of sportiness, innovative appeal, and luxury. Specialty clinics are expensive. Automobile companies typically invest between $100,000 and $1,000,000 per specialty clinic to design a single new car. With multiple aesthetic values for each vehicle and over a hundred vehicles in its global product lineup, GM alone spends tens of millions of dollars on specialty clinics. With the additional hidden costs incurred when designers routinely and manually screen hundreds of

aesthetic designs to narrow down alternatives for a specialty clinic, costs can exceed $100 million for a single manufacturer (Burnap et al., 2016, p. 3). Advances in technology offer a myriad of capabilities for products and their users, but at the same time present an increasing challenge for designers and stakeholders in communicating through the product model. The ability of a buyer or user to understand and appreciate a product is often a limitation to the success of a product design in the marketplace (Linder & Olander, 2007, p. 5). Consumers generally do not have access to the designers of the products they interact with. Thus, consumers' interpretation of design is largely based on their interaction with the product (Veryzer & Mozota, 2005, p. 15).

Advances in technology offer a myriad of possibilities for products and their users, but at the same time present an increasing challenge for designers and stakeholders in communicating through the product model. The ability of the buyer or user to understand and appreciate the product is often a limitation to the success of product design in the marketplace (Linder & Olander, 2007, p. 5). Consumers generally do not have access to the designers of the products they interact with. Consumers' interpretation of design is therefore mostly based on their interaction with the product (Veryzer & Mozota, 2005, p. 15).

The product evokes a response within the person who interacts with it. This response is usually a combination of cognitive, emotional and behavioral nature. The cognitive response depends on the characteristics and visual features conveyed by the product that inform the user of its function and how to use it. In addition to the ability of this aspect to relate to the symbolic frameworks and self-expression of the user and the associations between the user's personality and the product's personality (Baheel, 2024). Then the aesthetic impression is generated. As a result of perception of aesthetic appeal, emotional response is generated, such as the feelings, emotions and moods that the product evokes. As a result of the emotional feeling, the behavioral response is generated, which is related to the acceptance of the product (in the case of good aesthetics) or its rejection (in the case of bad response). With a good aesthetic response, the periods of use and acceptance of the product increase in different types according to the nature of the product and its functions.

Methodology

Following a review of the relevant literature and an examination of its aspects and objective characteristics, several key dimensions were reached to clarify the extent of the user's evaluation and aesthetic judgment of the industrial product, which were identified in the following table:

No	Key Dimension	Sub-Dimension
1	**Visual Aesthetics**	- Color
		- Shape
		- Texture
		- Visual Harmony
		- Novelty
2	**Relationship Between Aesthetics and Functionality**	- Aesthetics and Usability
		- Transcendental Aesthetics and Difficulty of Use
		- Aesthetics and Performance Efficiency
3	**Cultural Factors and Their Impact on Aesthetic Evaluation**	- Cultural Factors and Their Effect on Evaluation
		- Cultural Expression in Aesthetic Values
4	**Emotional and Behavioral Response**	- Aesthetic Values and Increased Product Usage
		- Aesthetic Values and Positive Emotional Stimulation
5	**Cognitive and Symbolic Elements in Design Evaluation**	- Previous Experience
		- Brand Recognition

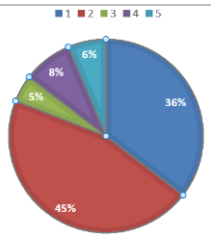
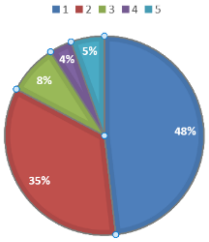
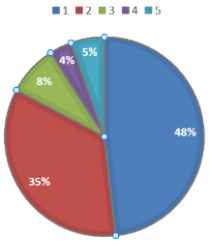
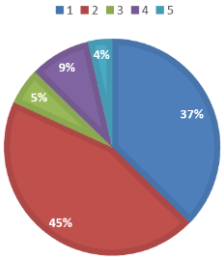
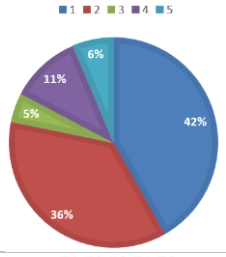
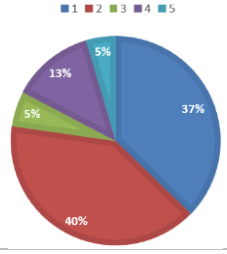
After extracting the analysis tool represented by the previous table and its main and sub- Dimension and presenting it to a number of experts* in industrial design, a questionnaire was prepared and presented to a number of users represented by the students of the initial study in the design department for the academic stages (second, third and fourth), the number of respondents from whom reached (110 participants).

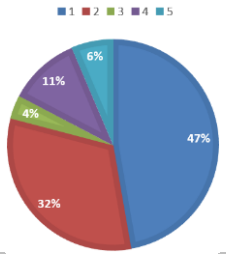
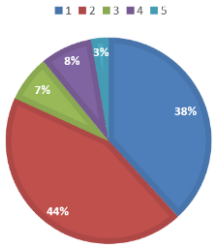
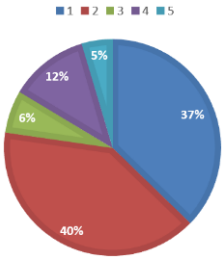
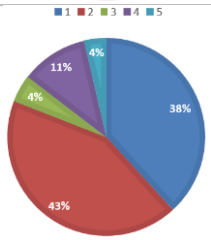
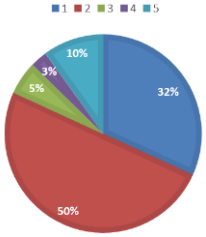
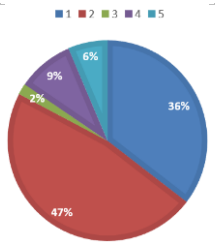
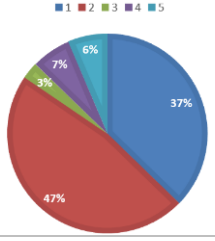
Results

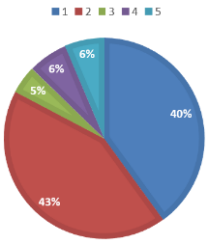
After extracting the answers and converting them into numerical formats from 1-5 (where 1 represents high agreement and 5 represents strong disagreement) and adopting the percentage equation, the results expressing the

* Analysis Form Experts:
1. Prof. Dr. Jassim Ahmed Zidane, Industrial Design, College of Fine Arts, University of Baghdad.
2. Asst. Prof. Dr. Jassim Khazaal Baheel, Industrial Design, College of Fine Arts, University of Baghdad.
3. Asst. Prof. Dr. Ali Ghazi Matar, Industrial Design, College of Fine Arts, University of Baghdad.

relationship of aesthetics to different variables of evaluation and aesthetic judgment variables were reached. Which are explained in the following table:

Dimension	Verification Rate (%)	Diagram
Color	81	
Shape	83	
Texture	83	
Visual Harmony	82	
Novelty	78	
Aesthetics and Usability	77	

Transcendental Aesthetics and Difficulty of Use	79	
Aesthetics and Performance Efficiency	82	
Cultural Factors and Their Impact on Evaluation	77	
Cultural Expression in Aesthetic Values	81	
Aesthetic Values and Increased Product Usage	82	
Aesthetic Values and Positive Emotional Stimulation	83	
Previous Experience	85	

Brand Recognition	83	

Conclusions

1. Visual components like color, form, and texture play a crucial role in visual impact and in shaping perceived aesthetic value. These elements contribute significantly to attracting attention, stimulating sensory perceptions, and determining the nature of the user's initial impression of the product, deepening his understanding and acceptance of the aesthetic value.
2. Visual consistency and harmony formulas between formal or perceived variables represent a feature inherent to the characteristics of the visual stimulus and enhancing user acceptance of the product since they are a feature that represents an entry point for the formal and visual unity of the product, which contributes significantly to enhancing aesthetic values and increasing aesthetic acceptance.
3. The balance between perceived aesthetic values and ease of use is an entry point for good composition at the level of formal characteristics and their aesthetic values and between the cognitive frameworks presented by the product, which achieves a balance between aesthetic values and the utilitarian or practical aspect of the design. This balance is in accordance with a studied and standardized relationship about the nature of aesthetic values and the extent of their overlap and harmony with the cognitive values represented by the utilitarian aspects.
4. Cultural references play a key role in shaping users' perceptions of aesthetic values. Taking the user's cultural considerations into account when designing the product and determining the design variables and aesthetic values is an introduction to understanding the user's requirements and achieving the expectations and desires of users of different categories and cultural references.
5. The association of the feeling of aesthetic value with emotional reactions is an important introduction to identifying what excites the user and what suits his aesthetic taste in order to establish deep associations of the product with the user that go beyond the frameworks of formal composition and practical benefit to aspects related to admiration and love, which results in a behavioral reaction represented by repeated and prolonged use of the product.
6. Aesthetic values enhance the practical quality of the product, which is a feeling generated in the user because of the attractiveness generated by the aesthetic value and the positive feelings associated with the product, which enhances the user's feeling of the quality of the product and his positive perception of the overall performance value.
7. The brand adds a symbolic value to the industrial product, which affects the aesthetic evaluation and enhances the visual appeal of the product, which in turn is reflected in the emotional impact and the user's perceptions and acceptance.
8. Novelty is an important element that enhances the aesthetic values of the product and increases attractiveness and acceptance, which is directly reflected in the emotional impact. Innovative and modern designs are often associated with feelings of modernity and development, which contribute to attracting the user's attention and are consistent with meeting his advanced and renewed needs.
9. Simplicity is one of the factors that enhance the aesthetic appeal of products, in line with the requirements of the current era, which is represented by the trend towards simplification and making formal variables at their lowest levels, which is consistent with cognitive simplicity and thus behavioral simplicity resulting from physical interaction with the product.
10. Previous experience is the frame of reference for the user in his interaction with similar products, which enhances the feeling of familiarity, ease of use, and the ability to interact with the product according to frameworks of references and usage knowledge, which is directly reflected in the aesthetic appeal and the final aesthetic judgment.

Recommendations

1. Focus on achieving a balance between aesthetic values, practical aspects and ease of use, with an emphasis on cultural differences, which can represent important inputs for aesthetic acceptance and positive judgments and thus preferring the product over other similar products of the same type.
2. Adopt the principle of simplicity, with a focus on introducing new elements that enhance aesthetic values and increase the overall appeal of the product. Focus on visual harmony with ease of use to ensure that overall experience with the product is a satisfactory one.

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التقييم واحكام التفضيل الجمالي لاستجابة المستخدم للمنتج الصناعي

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الملخص

تناقش هذه الدراسة الدور الحاسم للجماليات في التأثير على تقييمات وتفضيلات المستهلكين للمنتجات الصناعية. ومع اعتبار التصميم عاملاً مميزاً رئيسياً في الأسواق التنافسية، تستكشف الدراسة كيفية تفاعل العناصر الجمالية مع استجابات المستخدمين. تركز الدراسة على مكونات التقييم الجمالي، بما في ذلك التناسق البصري، وسهولة الاستخدام، والتأثيرات الثقافية، وتأثيرها على سلوك المستهلك والانخراط العاطفي .اذ اعتمد البحث على استبانة منظم تم توزيعه على 110 طلاب تصميم جامعيين، حيث تم تحليل العلاقة بين الجاذبية الجمالية وعوامل مثل سهولة الاستخدام، والملاءمة الثقافية، والتحفيز العاطفي بشكل كمي. اذ تُبرز النتائج أهمية العناصر البصرية -اللون، والشكل، والملمس- في جذب انتباه المستهلك وتعزيز التصورات الإيجابية. كما تبين أن التصميم الجمالي يثير مشاعر إيجابية، ويحسن من سهولة الاستخدام، ويعزز الولاء للعلامة التجارية. بالإضافة إلى ذلك، يلعب السياق الثقافي دوراً مهماً في تشكيل تصورات المستخدمين للجماليات، مما يؤكد الحاجة إلى استراتيجيات تصميم تراعي الحساسية الثقافية. اذ تختتم الدراسة بالدعوة إلى نهج تصميم متوازن يجمع بين الابتكار والبساطة والتناسق البصري، بما يتماشى مع توقعات المستهلكين ويعزز من تنافسية المنتجات.

ومن اهم الاستنتاجات التي تم التوصل اليها:

1. العناصر البصرية تُعتبر من المحددات الأساسية في تقييم الجوانب الجمالية للمنتجات، حيث يُعد اللون أحد العناصر الأكثر تأثيرًا، إذ يساهم بشكل كبير في جذب الانتباه وترسيخ الانطباع الأولي لدى المستخدم. بالإضافة إلى ذلك، يلعب كل من الشكل والملمس دورًا تكميليًا من خلال تعزيز تجربة المستخدم وتعميق فهمه وإحساسه بالجوانب الجمالية للمنتج، مما يجعل هذه العناصر مجتمعة عوامل رئيسية في تشكيل التصور الجمالي.
2. تؤثر الخلفية الثقافية للمستخدم بشكل مباشر على الطريقة التي يدرك بها الجماليات ويقيّم تصميم المنتج. وهذا يبرز أهمية أخذ السياقات الثقافية بعين الاعتبار أثناء عملية تصميم المنتجات، خاصةً إذا كانت الفئة المستهدفة تتميز بتنوع ثقافي واسع، حيث تساهم هذه المراعاة في تحقيق توافق أكبر مع توقعات المستخدمين واحتياجاتهم.
3. تلعب العناصر الرمزية دورًا مهمًا في التأثير على تقييم الجماليات.
4. يُعد التصميم البسيط أكثر جاذبية مقارنةً بالتصاميم المعقدة، وهو ما يعكس التوجه الحديث نحو تبسيط التصميم لتسهيل فهم المنتج واستخدامه.

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