

# Investigation of consumer Preferences in light of Market-Driven Aesthetics

Omnia Salah <sup>1</sup>, Islam Gharieb <sup>2</sup>

1- Lecturer - Faculty of Applied Arts - Helwan University - Egypt

2- Associate Professor- Faculty of Applied Arts - Helwan University - Egypt

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## KEY WORDS:

Product design aesthetics, design philosophy, design history, market driven aesthetics.

## ABSTRACT:

Industry plays a vital role in any country future. Product design receives a lot of interest within industry nowadays and there are numerous well-known examples of companies from different industrial contexts, that base their business success on their capability to develop products using its visual aesthetics and functionality as most innovative terms for product development. Focusing on the emotional impact and aesthetic aspects has become very important as it is where competition takes place today.

Recently, lot of studies dealt with consumer culture and, emotional design, first impression given to expected buyer, it had become very important in order to keep success of any company. Those Studies usually based on information grasped and motivated by market surveys, yet here comes the importance of studying product design from marketing perspective the products based directly on these market considerations can be said to incorporate market driven aesthetic aspects, or market driven form.

This paper aims to study product aesthetic from a marketing perspective, exploring market driven form, with an overview of aesthetic aspects in contemporary design schools and trends.

## INTRODUCTION:

Aesthetics play a great role in the product design domain. It can be considered the main motivation of the user to make the buying decision. This is because it creates a sensation connection between the product and the user by its features and semiotics [Hekkert, 2006]. "Form follows function" continued to be the basic rule that derive design process to create products. Recently, with the tough competition in the global market, companies realized it is not enough to create good form that serves a reliable function to persuade users to buy it [Hsiao et al., 2008]. Many design approaches were developed to solve this problem and to help designers to think in new ways.

The main question here is what drive the aesthetics of the product. Is it the designer, the market, the user, or the product itself? With a focus analysis of the market, it is noticeable that there are two main factors that lead aesthetics of the products: the market trends and user's needs [Ogawa & Piller, 2006]. People always tend to buy products to do a function and to provide them with good feelings. Trendy objects provide users with the sensation of distinction. From this point, companies started to develop market-driven products. Many methods and tools were developed to help designers in the design process to create market-driven products [Cravens et al., 2000]. Designers and companies surveyed users' opinions and needs. They analyzed the market environment, the trend, and methods of marketing process.

In this paper, we aim to investigate the current situation of market-driven aesthetics and the consumers' opinions towards market-driven products. To achieve this goal, market trend was analyzed, and a questionnaire was designed and distributed to investigate the directions of consumers preferences. This questionnaire attempted to discover if the consumer opinions are compatible with the market trends or not.

The paper firstly reviewed contemporary product design approaches such as universal design, inclusive design where the physical and mental abilities of users should be considered by designers to make the product available for the most people. Other approaches such as cultural and emotional design which deal with the feelings and emotions of the consumer. Consumer environmental awareness play a big role in approaches like sustainable design and design for sustainable behavior.

**Methodology was divided into 3 steps:** trends analysis, a questionnaire study, and results. A discussion followed that to discuss results and find out what is behind the scene. It is important to form a futuristic vision that may predict the future of aesthetics of products.

## 2. Related works

### 2.1 Contemporary design approaches

Due to market competition, users' new needs and wishes, and new technology emerged in products, many new design approaches have been into existence in the 21th century. These approaches can be briefly mentioned, universal design, inclusive design, emotional design, and recently thing-centered design.

- Universal design appeared in the end of the twentieth century but it still a popular approach for designing products that are targeted to a wide range of users. It concentrates on designing objects to be usable by most of the population even with their age, gender, and abilities differences [Bevan & Curson, 1999; Monk, 2000]. Inclusive design can be considered as a new version of universal design [Keates et al., 2000]. It differs in targeting most users from a specific group of people. Designing of home medical devices is a good example of this approach.

- While universal design attempts to ease the process of using to all people, emotional design works on their feelings and emotions [Gharib, 2017]. It plays a big role in raising their feeling of happiness. It also aims to produce a specific emotion that may push users to act in a specific way. Emotional design had a great impact on product design market through the last few years with connecting users and product by using emotions [Forlizzi & Batterbee, 2004; Desmet & Hekkert, 2007].

- Cultural design has a significant impact in the modern design. It employs cultural features in products to create a connection between the user and the product. Many models were presented to investigate the cultural design process such as Lin's model [Lin, 2007], Teng and Chuang [Teng & Chuang, 2011], and Nijkamp and Garde [Nijkamp & Garde, 2010]. The 3 models find out that cultural design should start with the good study of the cultural features, then the designer translate his understanding into idea which in the last stage is presented as a product.

- According to the increasing interest in environmental issues, sustainable design [Mayyas et al., 2012; Sherwin, 2004] and design for sustainable behavior [becomes trends in product design. Users are looking

forward more environment-friendly products, thus companies compete in presenting more and more of these products. Here, the awareness of the users which leads the market.

•New technologies such as internet-of-things [Jenkins, 2015; Nicenboim, 2018] opened the door to a new design approach which concentrates on things, thing-centered design. This approach is centered on the product itself. It is a comprehensive studying of the product and its behavior. Cila et al. [Cila et al., 2015] proposed an object persona approach. A persona format was presented to include the product, its life cycle, the surrounding and the user.

## 2.2 Aesthetics and product design

The term aesthetics was coined in the eighteenth century by the German philosopher Alexander Baumgarten from the Greek word “aisthetikos” (meaning “perspective, especially by feeling”). According to Baumgarten, the term refers to a special branch of philosophy that aims to produce a science of sensuous knowledge in contrast with logic, whose goal is truth.” Baumgarten was interested, in particular, in the impact of physical features on individual experiences. Later on, the German philosopher G. W. Hegel (1770-1831) limited the usage of aesthetics to the study of fine arts. (Brunel, 1998, pp. 15-17).

The literature has focused deeply on “people”, how people react, feel, understand products those studies have been crossed with other science disciplines to explain what is meant by product aesthetic. First attempt was by focusing on the overall beauty or attractiveness of a product. As they relate Product aesthetics to the artistic dimensions of products. Aesthetics elements or features such as the overall line, color, shape, pattern, texture, proportions, etc. represent artistic executional choices for product design. Overall, product aesthetics is the quality or value of these artistic choices in the design process. (Brunel, 1998, pp. 15-17).

Other goes to responses “Emotion”, In his paper A Framework for the Experience of Product Aesthetics, Haug has subjected to different literature backgrounds for experience of aesthetics, perhaps what was exciting and related to our topic is when he subjected to Leder et al model for artistic experience which can be useful in a design context. In brief, the model developed by Leder et al (2004) includes five information-processing stages that take place after an object has been classified as art: (1) perceptual analyses (structural features, such as complexity, contrast, sym-

metry and grouping, that are extracted and analysed), (2) implicit memory integration (mechanisms related to experiences of which the recipient is not necessarily conscious), (3) explicit classification (deliberate and conscious involvement of the processing information of the artwork), (4) cognitive mastering (meaning that is extracted from the artwork, including higher-order interpretations), and (5) evaluation (aesthetic judgment based on these interpretations). The five stages are connected in sequence and through feedback loops. The two distinctive outputs of the model are ‘aesthetic judgment’ and ‘aesthetic emotion,’ which are seen to constitute the endpoints of the aesthetic experience. According to the model, therefore, the interaction between cognitive and emotional processes accounts for the aesthetic experience of art. (Haug, 2016).

On the other hand Paul Heekert once argued in his attempts to define product aesthetic that Aesthetic is a “pleasure” & not an emotion, he claimed that many scholars in the field of emotion have been theorizing about so-called aesthetic emotions, mostly referring to ‘normal’ emotions, like interest, fascination and surprise, that often take place in, but are not restricted to, encounters with works of art. (PAUL HEKKERT, 2008, pp. 260-262).

Perhaps it was until 1997 when Monö goes on to explain how aesthetics can be seen as communication through products that made product aesthetics released from philosophical conflicts and return it directly to “Gestalt” realizing to a product. According to communication theory, every communication operation needs three main components sender, message, receiver. Communication implies the transmission of a message from one system to another, such as from a designer to a user. What distinguishes aesthetics from an ordinary spoken language is merely the differences in the transmitter and channel through which the message is passed. In the aesthetic language of products, the transmitter of the message is the product itself (whereas in a spoken language it would be the mouth of the person talking). The source (the designer or the person talking), receiver (the sensory organs of another person), and the target (the other person’s brain), remain the same. This implies that it is possible to pass an intended message through a product to the user of the product. In this context, the user can be anyone who comes in contact with the product, in other words someone who perceives it at any given time. The model presented by Monö also considers how an intended message can become obscured or changed on

its way to the target. In aesthetics, the meaning of a product's individual parts, its totality, and the way it is seen as a part of a bigger system, is a more complex and relative matter – depending to a larger extent on the circumstances and the personal experience of the target. (Parr, 2003).

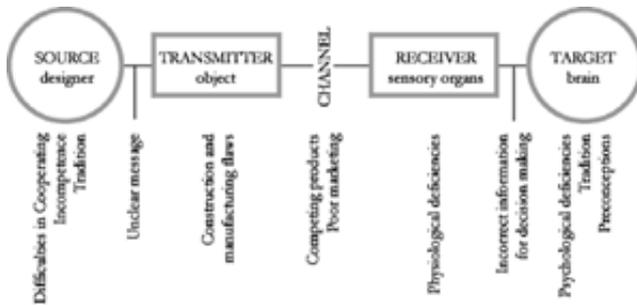


Figure: 1 Aesthetics as language of a product Modified by mono 1997

As a result of continuous growth of competing products in several industries, the role and impact of product design extends to product communication and this tendency is part of successful company performance. Focusing on the emotional impact and social communicative roles of products has become very important as it is where competition takes place today. (Horváth, 2001, pp. 12-14).

### 2.3 Market-driven aesthetics

Earlier in the 1970s Theodore Levitt and other academics argued that there is a need for a new model for business to follow. The new model should prioritize the consumers' needs rather than gaining profits. With the globalization of markets in the next decades and the tough competition [Cravens et al., 2000], companies turned to this new model to keep their position in the market.

Market-driven product appeared as a term to express about the philosophy where the designers focus on identifying customer needs or wants and meeting them. The main challenge of a company is to gain the consumer satisfaction which is related to many aspects of the products such as aesthetics, cost [Clifton et al., 2019], quality [Herrmann et al., 2000], and function. According to these aspects many approaches were developed. These approaches treated the issue from different point of view. Herrmann et al., [Herrmann et al., 2000] concentrated on gaining the consumer satisfaction by developing the product quality. Another approach is the analysis of the big data collected from consumers to find out what they really need [Jin et al., 2016].

Product aesthetics is considered the first connection point between the product and the consumers. In some products, it is the motivation for consumer to make the buying decision. Market-driven aesthetics can be defined as that product appearance aspects that attract a consumer and push him/her to make the buying decision. Product aesthetics refer to the shape of the product which includes the materials appearance and the quality that can be felt by the consumer through looking at it [Chakravarty, 2000].

To find out aesthetics' features that a consumer is looking for and like to buy, a comprehensive survey should be done, and a big data should be collected and analyzed. Various tools and methods can be used by designers or marketing team within organizations to find out data required. Questionnaires is an effective method that can obtain a precise data [Johnson & Turner, 2003; Jack & Clarke, 1998]. Interviewing consumers is another good technique to collect data but it required a longer time in analysis [Merton, 2008; Gillham, 2000]. Online survey is a great and modern tool which can save time and effort [Denscombe, 2006; Evans & Mathur, 2005; Ilieva et al., 2002]. It also presents precise results if the questions were formed in a perfect way.

## 3. Methodology

### 3.1 Trend Analysis

Product trend is the term that expresses about the status of popularity for a specific design lines in products [Evans, 2003]. It is an expression of what matters to consumers now. What a consumer is excited about. Trend analysis is a method to identify the current trends of a product and a way to predict the future trends within the domain [Tucker & Kim, 2011]. Product trends can be identifying with different ways. It can be identified by observation, online surveys, and reviewing specialist websites. A mix of these methods was used to identify the current trends in product design. We identified some aspects that can be considered as trend features. These features include the use of shiny metals, the simplicity, and the functionality. According to those factors, we selected some products that express these values to be represented in the questionnaire.

### 3.2. Questionnaire design

The questionnaire was designed & conducted through social network with 8 designs of lightening products ( & 8 designs of an ice cream spoons. The products can find easily on Egyptian markets in the form of fash

ioned & old-Fashioned trends.

A total of 40 participants undertook the survey which took between 10 to 15 min to complete. Participants were required to answer 35 questions which were in the form of bullet options and these are analyzed in this paper. In the survey, participants were asked to give information about their Name, age, gender, occupation. Then they were asked to answer a simple question for each design of total 16 products about buying decision (buy/don't buy / don't know) divided in 4 section ( each 4 designs represent a trend ) and then in the case of buying these products, they explain what the reason for this decision is. (see Figure 1)

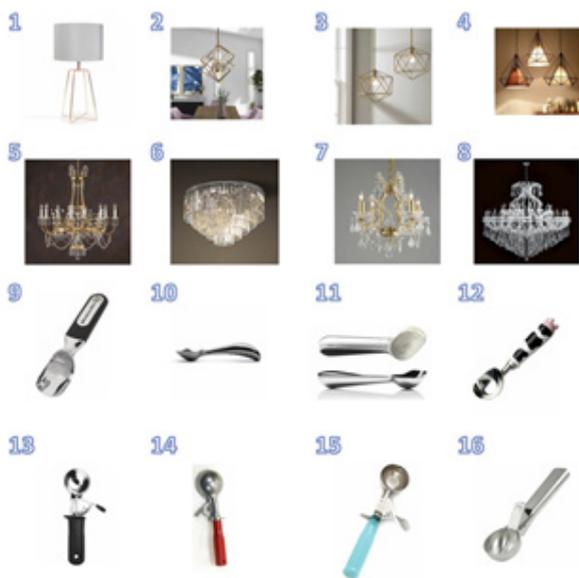


Figure 2 Product designs that used in Questionnaire

### 3.3.Results

The first section of the questionnaire showed that 40 participants responded to the questionnaire. Around two third of participants are in the age range between 30 and 50 years old. Around of 37.5% are between 20 and 30 years old while the rest of participants are above 50. All occupations varies from house wife, students, freelance designers, Academic stuff , ...others are represented in the questionnaire participation in balanced proportions. Figure (3) shows the range of age of participants while figure (4) shows their occupations

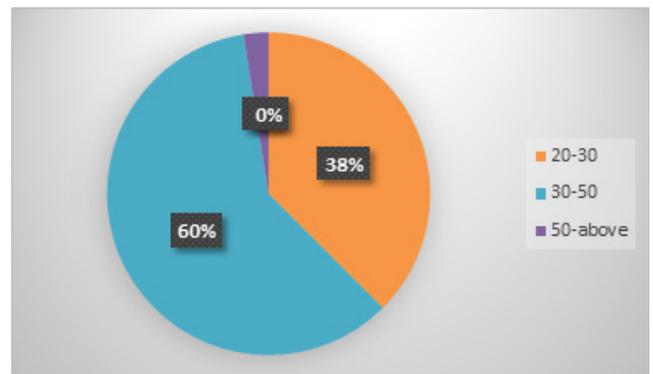


Figure 3 shows ages of participants

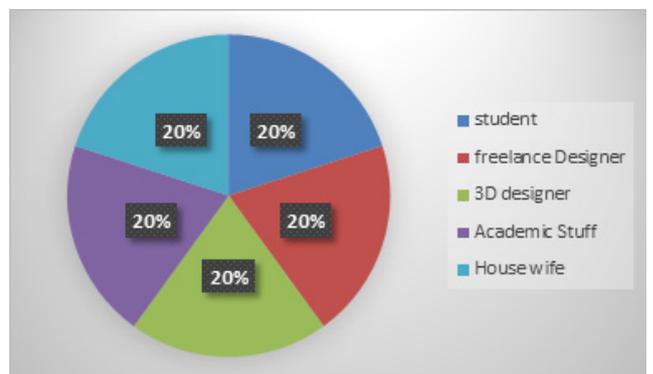


Figure 4 shows occupations of participant

The second section of the questionnaire which deals with four modern and up to date lightening designs showed that most of participant have the tendency to buy the products with modern designs .off coarse there were individual preferences which can vary according to their mood, their full realization of the product. Figure (5) shows the results of the second section.

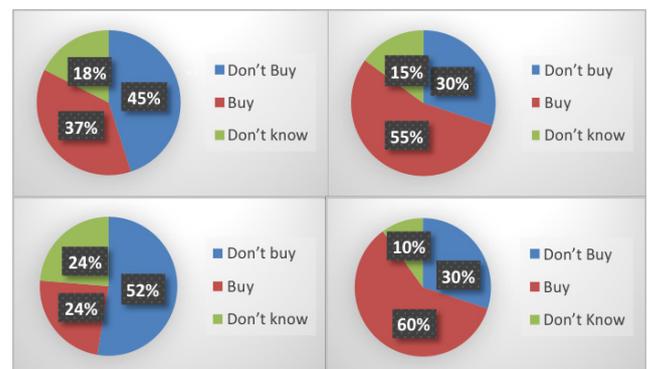


Figure (5) shows second section results of participants

The third section of the questionnaire which deals with four old fashioned lightening designs showed refusal of products from the most of participant, Ratios

up to 90 % didn't prefer to buy those designs. Figure (6) shows the results of the third section



Figure (6) shows Third section results of participants

The Fourth section of the questionnaire which deals with four new and Fashionable designs for an ice cream spoons showed refusal of products from the most of participant, due to their uncertainty of those

designs performances over than 60 % didn't prefer to buy those designs due to durability . Figure (7) shows the results of the Fourth section.

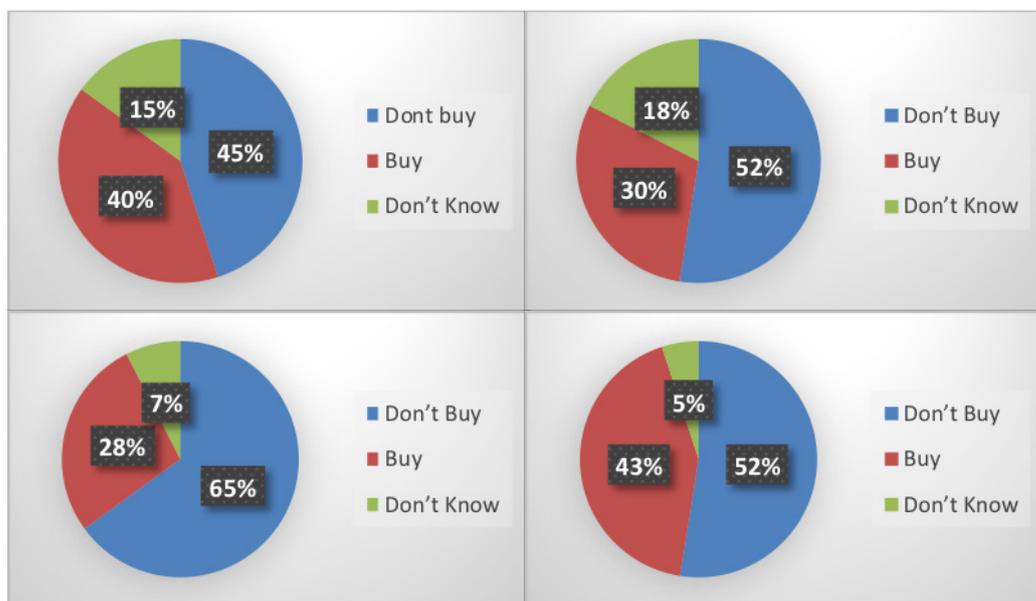


Figure (7) shows Fourth section results of participants

The Fifth section of the questionnaire which deals with four old Fashioned designs for an ice cream spoons showed diverse reactions from the most of participant, one of the designed got the most higher percentage of

buying decisions, due to its known design and its use history, on the other hand the other three designs had different responses. Figure (8) shows the results of the fifth & last section.

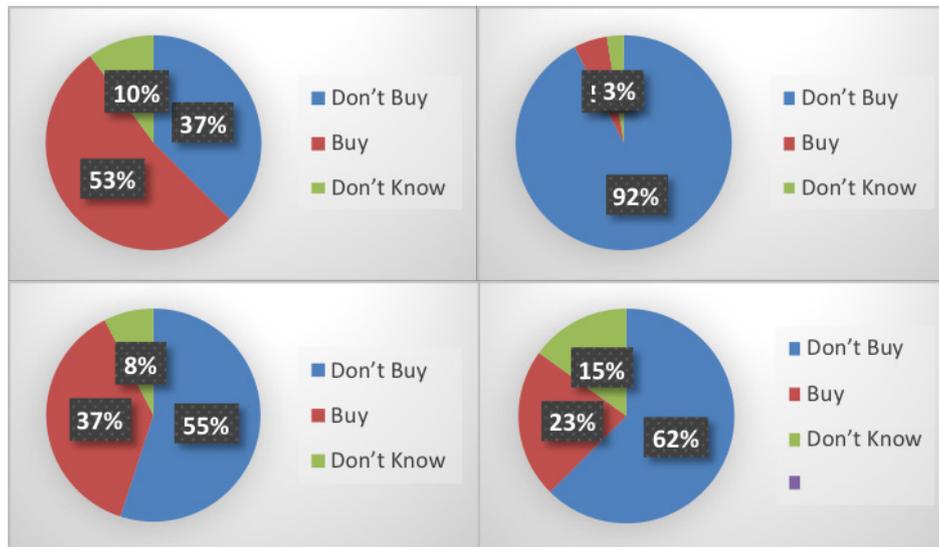


Figure (8) shows Fifth section results of participants

#### 4. Discussion

Aesthetics play a great role in market-driven products. it is the first motivation for the consumer to buy a product in most cases. This paper interests in revealing the ambiguous relation between market-driven aesthetics, market trends, and the consumers preferences. To reveal this relation, a trend analysis was done to find out the current trend of product design. Then two products were selected, 8 designs for each. These products were included in the questionnaire study.

##### Results reveal some noticeable issues:

- Consumers differed between trendy product and old fashioned clearly.
- Some consumers rejected minimal designs as they worried about the functionality. In their comments, they mentioned clearly that it may fail in doing its job.
- Age of participant wasn't a limitation in selecting trendy products. This ensures that the consumer is looking for distinction in any stage of his life.
- The cultural background the education levels of participants played a big role in their preferences.

So far in this discussion, aesthetics is not the only motivation for the consumer to buy. The consumer tends to connect other factors such as functionality to

aesthetics. Aesthetics should express about other aspects of a product such as functionality and quality. This expression results that a consumer finds the product is more reliable. In some cases, consumers tend to choose the old-fashioned design just because they trust in its reliability.

Another issue is that market-driven aesthetics may be affected according to the consumer cultural background, age, and educational level. These factors may result the consumer is not compatible in some cases with market trends.

## 5. Conclusion & Future works

There is a strong relation between product design, aesthetics and the market. In this paper, we attempt to reveal this relation from the point of view of market-driven aesthetics and the consumer preferences. To achieve that, we analyzed the current market trends in product design, make a questionnaire study to collect data from consumers about their preferences and how these preferences are compatible with the trend. From results, there are many issues that control the market-driven aesthetics. various questions about the role of consumers preferences should be studied in future works.

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