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# The Effect of Visual Product Aesthetics on Consumers' Price Sensitivity

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## Abstract

In today's world, due to renewed and changing consumer demands and the rapidly developing technological factors, companies and managers are in search of new strategies to make a difference in their products and services. As competition increased marketers started to focus on new approaches and product innovations to attract consumers' perception and attention. One of the most effective ways of differentiating is using aesthetics. Visual aesthetics of products creates value for consumers. Visual aesthetics create significant value for product and makes it more special. Also, level of price sensitivity of consumer decreases when the product is more unique and prestigious. This study aims to investigate the relationship between visual aesthetics of products and consumers' price sensitivity. The data of the study is collected via a survey form from 510 respondents from Eskisehir, Turkey. The results revealed that visual aesthetics of products and also its sub-dimensions including value, acumen, and response are negatively associated with consumers' price sensitivity. Explanatory power of response dimension was higher than its counterparts.

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*Keywords:* Visual Product Aesthetics, Value, Acumen, Response, Price Sensitivity.

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## 1. Introduction

Nowadays, product range and developing technology in all sectors influence all decisions of the consumers. People work through many product types in market because they want to provide maximum benefits from the

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product which they intend to purchase. In other words, consumers want to buy privileged and outstanding products or services. That is to say, products must be different and special in comparison with alternative or similar products. One of the most effective ways of differentiating is using aesthetics. In this context, a visual design element is one of the significance factors that influence consumer perceptions (Van Rompay et al., 2012). People begin to include aesthetic components in every aspect of life therefore; the term of aesthetics takes part in many peoples' daily life (Weggeman et al., 2007; Venkatesh and Meamber, 2008). For this reason, companies and managers try to differentiate their products by using aesthetics to be successful.

Research on aesthetics began in the 18th century. Alexander Gottlieb Baumgarten, who is regarded as founder of the aesthetic section as a different branch of philosophical thought system, defined aesthetics as a theory of beauty and theory of sensitive knowledge (Wessell, 1972). Studies on the aesthetics in marketing research began in the second half of the 20th century. Holbrook (1980) pointed out that a theoretical framework was necessary to discuss aesthetic consumption while Beardsley (1969) stated that aesthetics experiences and aesthetic values are connected with emotional reactions. Charters (2006) made a distinction between aesthetic consumption and aesthetic products. Besides, Veryzer (1995) explained that product design is related to the aesthetics components.

Aesthetics, one of the most significant way to make world special, is the art of creating reactions that without words and communicate by way of sense (Newkirk and Crainer, 2003). In today's world, many people take care of symbolic value of product more in detail (Goldsmith et al., 2010). Consumers' aesthetic appraisal of products is related to whether a product design includes certain design properties such as color, shape, etc. (Blijlevens et al., 2012). An aesthetic response has affective and cognitive dimensions as well as sensory such as involuntary physical response (Wagner, 1999). Bloch (1995) explained that the form of product generate psychological reactions which include cognitive and emotional contents. These psychological reactions also cause behavioral responses which indirectly lead to behavioral responses. Therefore, marketers use product aesthetics as a tool for competitive differentiation (Cox and Cox, 2002).

Aesthetics concept contributes to success of companies and brands (Rompay & Pruyn, 2011). In terms of strategic pricing, it enables companies to gain higher profits by letting them determine higher prices (Kristensen et al. 2012). In this context this study investigates the relationship between visual product aesthetics and price sensitivity. Price sensitivity is an important concept for marketers in the real world. Price sensitivity offers new ways for managers about how they should approach the consumer (Goldsmith et al, 2010). The concept of price sensitivity refers to the variations of consumer demand in case of price fluctuations (Low et al., 2013). Social and hedonic conditions may cause consumers to be less price sensitive than non-social and functional ones (Wakefield & Inman, 2003)

## 2. Visual Product Aesthetics

Aesthetics of product is a valuable element because many consumers purchase not only a product but also value and experience. Consumers' inferring of product design is mainly related to how they are in an interaction with the product. The concept of visual product aesthetics usually plays a basic role for ideas about the sensorial character of the products (Workman and Caldwell, 2007). Furthermore, visual aesthetics is a one of the most important factors affecting consumer perception in many ways. An outstanding product design helps to distinguish products from its competitors and enables to make a difference in the market (Bloch et al., 2003). Besides, product design can affect people's quality of life positively (Crilly et al., 2004). Visual aesthetics has a symbolic role that can affect evaluation of product. While processing product selection, visual consumers may outweigh aesthetic factors higher than other consumers (Workman and Caldwell, 2007).

In line with these information, the centrality of aesthetics in products is critical to understand consumers' purchase decisions. The centrality of visual product aesthetics is explained as the total level of significance that the connection between consumers and the products provided by visual aesthetics (Bloch et al., 2003). Centrality of visual product aesthetics also indicates the durable interest that creates the aesthetic advantages provided from the product. Centrality of visual product aesthetics includes four related components (Bloch et al., 2003):

- 1) The value offered by the product appearance
- 2) The acumen, ability of recognition, classify and product design evaluation
- 3) The degree of response to visual design forms of products and

#### 4) Definiteness in visual aesthetics that influences product choice and sense of satisfaction in purchasing.

Product design is both a basic component of marketing mix and the first point of contact for consumers. Product design can also effectively create a permanent impression for a product (Kumar and Garg, 2010). Product design affects consumers' decision making process (Berkowitz, 1987; Bruce & Whitehead, 1988; Veryzer, 1993, 1999) via emotions (Kumar and Garg, 2010). Besides, aesthetical factors of product design can be complicated because aesthetics plays key role for product perception, product identification and use of the product (Veryzer, 1995). A good design increases the usage experiences; therefore it adds value to the product and attracts consumers (Bloch, 1995).

### 3. Price Sensitivity

Price sensitivity is one of the most important factors that influence price perceptions and consumers' purchasing decisions (Harmon et al., 2007). Consumers have price sensitivity for many product ranges because they want to get maximum benefits for all products or service (Al-Mamun et al., 2014). The term of price sensitivity refers to consumers' senses and reactions to differences in prices of products (Monroe, 1973).

Consumers' demographic profiles influence their price sensitivity (Kim et. al., 1999). Repeated display to featured brands as well as consumers' price threshold levels may also affect consumers' price sensitivity (Shankar & Krishnamurthi, 1996; Han et al., 2001). Price sensitivity measurement has an important role to describe consumers' willingness to pay and to evaluate price knowledge of consumers (Salamandic et al., 2014). Therefore this study aims to investigate the relationship between consumers' price sensitivity and visual product aesthetics.

### 4. Hypotheses

The concept of aesthetic has a significant impact on the financial decisions (Townsend and Shu, 2010). Regardless type of consumption, product differentiation can be based on aesthetics, and aesthetic designs indicate a higher willingness to pay in order to have the product immediately, feel a growing interest in products to flaunt and like products that are likely to trigger positive responses. (Reimann et al., 2010: 431). Aesthetically attractive products enable marketers to determine higher prices (Schmitt and Simonson, 2000; Kristensen et al. 2012). Consequently, visual aesthetics of products influence price related concepts (Orth et al., 2010).

Consumers are less price sensitive when the product is more unique and the product is supposed to have high-quality, good image or de luxe (Kotler, 1997). Visual aesthetics of a product adds value to the product and makes it more unique and special. In accordance with these explanations, especially, due to unique-value effect, level of price sensitivity of consumer should decrease when the product is more unique. Although there are some studies analyzing the relationship between product aesthetics and price related concepts mentioned above (Bloch et all 2003; Orth et all 2010; Bloch 1995; Rompay & Pruyn 2011; Schmitt and Simonson, 2000; Kotler 1997; Kristensen et al. 2012; Townsend and Shu, 2010; Rompay et all 2012) there is a lack of literature on the relationship between visual product aesthetics and price sensitivity. Visual aesthetics of the product can affect the level of price sensitivity in consumers considerably. This study aims to investigate the relationship between visual aesthetics of products and consumers' price sensitivity. The following hypotheses were developed:

H<sub>1</sub>: Visual product aesthetics is associated with price sensitivity.

H<sub>1a</sub>: Value is associated with price sensitivity.

H<sub>1b</sub>: Acumen is associated with price sensitivity.

H<sub>1c</sub>: Response is associated with price sensitivity.

### 5. Methodology

#### 5.1 Sample and Data Collection

Data for the study were collected via a survey from Eskisehir (a city of Turkey). 510 surveys were collected. Table 1 demonstrates demographic characteristics of the sample.

Table 1: Demographic Characteristics of the Sample

	Frequency	Percentage
<b>Marital Status</b>		
Married	320	62.75
Single	190	37.25
<b>Total</b>	<b>510</b>	<b>100</b>
<b>Gender</b>		
Female	171	33.5
Male	339	66.5
<b>Total</b>	<b>510</b>	<b>100</b>
<b>Age</b>		
18-25	64	12.6
26-33	150	29.4
34-41	115	22.6
42-49	117	22.9
50-57	52	10.2
58 and above	12	2.3
<b>Total</b>	<b>510</b>	<b>100</b>
<b>Education</b>		
Primary School	14	2.7
High School	120	23.5
Bachelors	337	66.1
Master/PhD	39	7.6
<b>Total</b>	<b>510</b>	<b>100</b>
<b>Income</b>		
0-750 Turkish Liras	9	1.8
751-1500 Turkish Liras	140	27.5
1501-2250 Turkish Liras	90	17.6
2251-3000 Turkish Liras	121	23.7
3001-3750 Turkish Liras	51	10
3751-4500 Turkish Liras	51	10
4501 Turkish Liras and above	48	9.4
<b>Total</b>	<b>510</b>	<b>100</b>

## 5.2 Measures

Product aesthetics (independent variable) was measured by the scale of Bloch et al. (2013). The scale includes value, acumen and response dimensions of visual product aesthetics. These items were measured with 5-point, Likert type scales (1 = strongly disagree, 5 = strongly agree). Price sensitivity (dependent variable) was measured by the scale of Wakefield and Inman (2003). The items of the scale were measured with 5-point, Likert type scales (1 = strongly disagree, 5 = strongly agree).

## 5.3 Analyses and Results

The arithmetic mean values of product aesthetics scale were between 2.92 and 3.98 while price sensitivity scale items have arithmetic mean values between 2.85 and 3.19 (Table 2).

Table 2: Mean and Standard Deviation Values of Items

	Mean Value	Standard Deviation
<b>Product Aesthetics</b>		
1. Owning products that have superior designs makes me feel good about myself.	3.98	0.61

2. I enjoy seeing displays of products that have superior designs.	3.96	0.55
3. A product’s design is a source of pleasure for me.	3.81	0.63
4. Beautiful product designs make our world a better place to live.	3.67	0.70
5. Being able to see subtle differences in product designs is one skill that I have developed over time.	3.76	0.71
6. I see things in a product’s design that other people tend to pass over.	3.78	0.70
7. I have the ability to imagine how a product will fit in with designs of other things I already own.	3.82	0.69
8. I have a pretty good idea of what makes one product look better than its competitors.	3.85	1.90
9. Sometimes the way a product looks seems to reach out and grab me.	3.74	0.68
10. If a product’s design really "speaks" to me, I feel that I must buy it.	2.96	1.21
11. When I see a product that has a really great design, I feel a strong a strong urge to buy it.	2.92	1.19
<b>Price Sensitivity</b>		
12. I’m willing to make an extra effort to find a low price.	3.11	1.34
13. I will change what I had planned to buy in order to take advantage of a lower price.	2.85	1.66
14. I am sensitive to differences in prices.	3.19	1.36
(1 = strongly disagree, 5 = strongly agree)		

5.4 Validity and reliability

Cronbach Alpha scores of product aesthetics and price sensitivity scales were 0.915 and 0.962 (Table 3). These reliability values were in acceptable limits. 6th and 8th items of the visual product aesthetics scale were eliminated because of the factor and reliability analyses.

Table 3: The Results of Factor Analysis and Reliability Analysis of the Scales

Items	Factor Loadings	Reliability <sup>a</sup>
<b>Visual Product Aesthetics</b>		
<b>Value</b>		
1. Owning products that have superior designs makes me feel good about myself.	0.837	
2. I enjoy seeing displays of products that have superior designs.	0.826	
3. A product’s design is a source of pleasure for me.	0.773	
4. Beautiful product designs make our world a better place to live.	0.683	
<b>Response</b>		
11. When I see a product that has a really great design, I feel a strong a strong urge to buy it.	0.915	0.915
10. If a product’s design really "speaks" to me, I feel that I must buy it.	0.907	
9. Sometimes the way a product looks seems to reach out and grab me.	0.563	
<b>Acumen</b>		
7. I have the ability to imagine how a product will fit in with designs of other things I already own.	0.595	
5. Being able to see subtle differences in product designs is one skill that I have developed over time.	0.584	
<i>KMO: 0.885, Chi-Square: 4711.555, df: 55, P&lt;0.05, % Variance:76.361</i>		
<i>6th and 8th items were dropped based on the factor analysis.</i>		
<b>Price Sensitivity</b>		
12. I’m willing to make an extra effort to find a low price.	0.980	
14. I am sensitive to differences in prices.	0.974	0.962
13. I will change what I had planned to buy in order to take advantage of a lower price.	0.955	
<i>KMO: 0.759, Chi-Square: 2038.496, df: 3, P&lt;0.05, % Variance:94.022</i>		
<sup>a</sup> reliability estimates are Cronbach’s alpha computed from study sample		

According to the factor analysis results product aesthetics scale has three sub-dimensions. After the evaluation of these sub-dimensions, they are named as value, acumen, and response. Only one component was extracted for price sensitivity scale. Percent of variances of product aesthetics and price sensitivity scales were 76.361% and 94.022%.

5.5 Hypotheses Testing

Linear regression analysis was employed to test the research model. Table 4 demonstrates the results of the linear regression analysis. The model investigated the effect of visual product aesthetics on price sensitivity. The results indicated that visual product aesthetics and its sub-dimensions affect price sensitivity. Therefore H<sub>1</sub>, H<sub>1a</sub>, H<sub>1b</sub>, and H<sub>1c</sub> were supported (p<0.05). The results revealed that visual product aesthetics is negatively associated with price sensitivity (F: 1407.757, p<0.05). Explanatory power of response, a sub-dimension of visual product aesthetics, was higher than its counterparts (Table 5).

Table 4: Model summary of multiple regression analyses

Model No	Regression Eq.	Adjusted R <sup>2</sup>	Std.Error of Estimate	F	Sig.
1	PS = b <sub>0</sub> + b <sub>1</sub> xVPA*	0.734	0.728	1407.757	0.000
2	PS = b <sub>0</sub> + b <sub>1</sub> xV + b <sub>2</sub> xA + b <sub>3</sub> xR	0.798	0.635	669.784	0.000

Notes: \*: Statistically significant, PS: Product Sensitivity; VPA: Visual Product Aesthetics; V: Value; A: Acumen; R: Response.

Table 5: Coefficients

Model No	Standardized Coefficients Beta	t	Sig.
1 (Constant)		53.102	0.000
Visual Product Aesthetics	-0.857	-37.520	0.000
2 (Constant)		108.453	0.000
Value	-0.072	-2.851	0.005
Acumen		-2.390	0.017
Response	-0.783	-26.642	0.000

Table 6 represents the correlation between variables. The correlation is statistically significant (p<0.05).

Table 6: Correlations

	Visual Product Aesthetics	Price Sensitivity
Visual Product Aesthetics	1.000	-0.857*
Price Sensitivity	-0.857*	1.000

Note: \*: Statistically significant,

## 6. Conclusion

Nowadays, visual product aesthetics has become an important factor which designers and managers have to pay more attention. The concept of product aesthetics affects many factors both directly and indirectly. The aim of the study is to explain whether there is a relationship between visual product aesthetics and price sensitivity.

According to results of this study, there is a strong negative relationship between visual product aesthetics and price sensitivity. In other words, when a product's design is impressive and powerful, consumers will be less sensitive to price of the product. Therefore, impressive product designs will be able to decrease the level of price sensitivity. This may strengthen the economic aspect of companies. In the light of this information, visual product aesthetics enables companies to gain higher profits.

Marketers should be careful while planning strategies and making decisions about their new products. All of the new products should be considered in terms of aesthetics. The way to achieve success for companies is closely related to the concept of aesthetics in the present time. Beside this visual product aesthetic is very important not only in terms of consumer behavior but also from the corporate identity and brand image.

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