

Environmental Psychology and Product Design

Rudin Beka¹

¹ University of New York Tirana, Tirana, Albania

Correspondence: Rudin Beka, University of New York Tirana, Tirana, Albania. Tel: 355-69-408-1582. E-mail: rudinbeka@yahoo.it

Received: February 1, 2016

Accepted: February 20, 2016

Online Published: March 6, 2016

doi:10.5539/ijps.v8n2p1

URL: <http://dx.doi.org/10.5539/ijps.v8n2p1>

Abstract

The paper studies product design components from the human-environmental relationship perspective. Stimulus responses and customer attitude towards environmental cues are of main interest to marketers and space designers. Findings suggest that a combination of different design elements, such as functional, aesthetic and symbolic impression design influence people behavior and have a direct impact on brand image and product success. The study is a conceptual paper and aims to discuss previous theories, methodologies and applications used in real-world settings regarding the interaction between design and consumer behavior.

Keywords: environmental psychology, product design, customer experience, aesthetic appeal

1. Introduction

The period when marketers have only been focused on problem/solution type of advertising, price settings and promotional activities has been changed. The environmental design approach perspective is now becoming a competitive advantage for many companies. Organizations and businesses try to impress their clients through surprising and unusual design spaces. When experiences and communication processes are aesthetically designed then the potential to provide positive memories and gratification is much higher (Candi & Saemundsson, 2011). The importance of design is not limited only to service industries like restaurants, bars, hotels, professional offices, retail stores, hospitals or dentistry (Shostack, 1977; Upah & Fulton, 1985; Zeithaml, 1988). Profit and not profit organizations, sport shows, opera companies and even armies have understood the potential of aesthetic design. Public appearances and promotional events are other areas where impression design is used as an added value. Research has shown that investment in design leads to an increase in sales of over 41% and that 90% of new design projects are profitable (Bruce & Daly, 2007).

The study begins with a review of environmental psychology and its marketing implications, examining the affects of design in the marketing discipline. Then a detailed analysis is done on the main design components, functional, aesthetic and symbolic design, analyzing the impact they have on consumer behavior and brand management. In the last section, discussions and further research recommendations are included.

2. Environmental Psychology and Marketing Implications

The environmental psychology field of study, started in the 1960s as a need to change public and private environments so to make them more appropriate to human needs (Garling, 2014). Today, this design philosophy is focused on studying the issues related to human-environment experiences including infrastructure quality, interior design, green spaces and other aspects of architecture and design (Kopeck, 2012).

An appealing design space, which is an important element of experiential marketing, does have a direct impact on pleasant feelings. In the marketing literature, different papers treat issues related to the effects that environmental design has on consumer behavior (Kotler, 1973; Bloch, 1995; Chitturi & Raghunathan, 2008; Bloch, 2011; Baxter, 1995; Reddy & Karmakar, 2012; Pawle & Cooper, 2006). Psychologists have largely ignored till 1960s the importance that physical surroundings have on the overall customer experience.

Although Kotler (1973) was among the first to mention the role that environmental design has on product success, Bitner (1992) developed one of the most interesting frameworks for understanding environmental-user relationships in service organizations. He mentioned that the way we design the environment does have an influence on consumers and employees as well.

Within the environment, the perception that consumers create about the service space does impact the shopping

experience, enjoyment, time spent within the store and friendliness towards others (Donovan & Rossiter, 1982). Part of the Bitner research was based on the Mehrabian and Russell (1974) model.

Mehrabian and Russell (1974) created a framework to analyze the interaction between service environment and customer behavior. The model they created reveals that environmental providers lead to different emotional reactions and these reactions influence customer behavior. Their model is based on a measurement scale called PAD (Pleasure, Arousal, Dominance). The framework can be used in different settings measuring the emotional service experience using all three dimensions. The authors have scaled each measurement using the low and high emotional appeal. Pleasure (P), arousal for (A) and dominance for (D) can have high (+) or low (-) results from customer surveys. Referring to Mehrabian and Russell (1974) pleasure is a positive emotion delivered through the servicespace. Customers do easily understand their emotional status, but they are not able to properly explain the reason why they liked the service they experienced. Arousal is the emotional response to which the customer feels stimulated, excited or active and dominance is related to the degree by which the customer feels important or in control of the situation. The PAD scale is easy and approachable to use but there are some limitations as well. Richins (1997) mentioned that the model does not analyze the entire emotional experience and it lacks to capture specific emotions such as joy or guilt. Babin and Darden (1998) emphasized that the model is not appropriate to consider positive and negative emotions simultaneously because the scale uses bipolar items. In order to study more complex emotions, we have to base our analyses on the interaction of basic emotions. Plutchik (1980) categorized eight basic emotions that have atmospheric effects on consumer behavior: fear, anger, joy, sadness, disgust, expectancy, acceptance and surprise. Izard (1977) on the other hand classified ten primary emotions: interest, enjoyment, surprise, sadness, anger, disgust, contempt, fear, shame/shyness, and guilt.

An interesting study is that of Crilly, Moultrie and Clarkson (2004), which expanded the design perspective, analyzing the semantic, aesthetic and symbolic impression of design. They argued that customer approach to design is compared to the hierarchy needs of Maslow when after the satisfaction of functionality and comfort needs, customers look for emotional and aesthetic experiences.

In the coming section each of the three design components identified by Crilly, Moultrie and Clarkson (2004) will be analyzed in detail.

3. Semantic Design

The semantic design is focused on the usability, quality and functionality of the product (Crilly et al., 2004). Butter (1984) introduced the concept, as an important theory for product appearance, feasibility and ergonomics. There are four semantic function of the product, identified by Wikstrom (1996); to describe usability, to express quality values, to signal reaction and to identify the nature of the product where the meaning and the language structure that the production department wants to emphasize through product shape and color, is a very important step in the semantic interpretation process.

3.1 The Semantic Design Theory

The semantic design part is perceived as the effectiveness of design and as mentioned above, it is referred to the usability, quality and functionality of the product (Crilly et al., 2004). But not only, the semantic design does not take into consideration only the functional part of the product but is very much connected to the symbolic design as well, focusing on its psychological, social and cultural aspect (Krippendorff & Butter, 1984). From this prospective we can say that the semantic aspect of design is centered on the relationship between the user and the product and also includes operational and social settings.

3.1.1 The Product Form

The product form and functionality is one of the main components of the product element, part of the 4ps of the marketing mix. Designing and giving forms to products is not a new concept. Since middle age, farmers and soldiers have decorated products such as pottery, weapons and clothing (Becker, 1978). Marketers on the other hand, rate form design as one of the most important criteria of products success. In a survey done with CMOs (chief marketing officer), 60 % of the respondents answered that design is the key determinant of new product performance and only 17 % mentioned price as the most important contributor (Bruce & Whitehead, 1988). The shape of the product has several impacts on product success (Bloch, 1995). First it is used to get attention and to differentiate the product from its competitors (Jones, 1991). The new 2014 BMW M4, stood out from its competition because of its aggressive shape. Second, it contributes to facilitate the communication process between the producer and the receiver (Nussbaum, 1993). Berowitz (1987) argues that product shape creates initial impressions the same as the price component does. If we take the MacBook Air product from Apple for

example, we noticed that the shape and the functionality of the pc, does directly give us an impression of an easy to use device. Third, the form of the product is related to the social aspect of consumer behavior (Lewalski, 1988). The usage of beautifully products does make us happy and enhance our sensory experience. And last but not least the forth contribution that product form has, is connected to its effect on our daily life and on the period of the experience using it lasts in our memories (Bloch, 1995). Below on Figure 1, is a given a framework which shows the responses that consumers have on the product form.

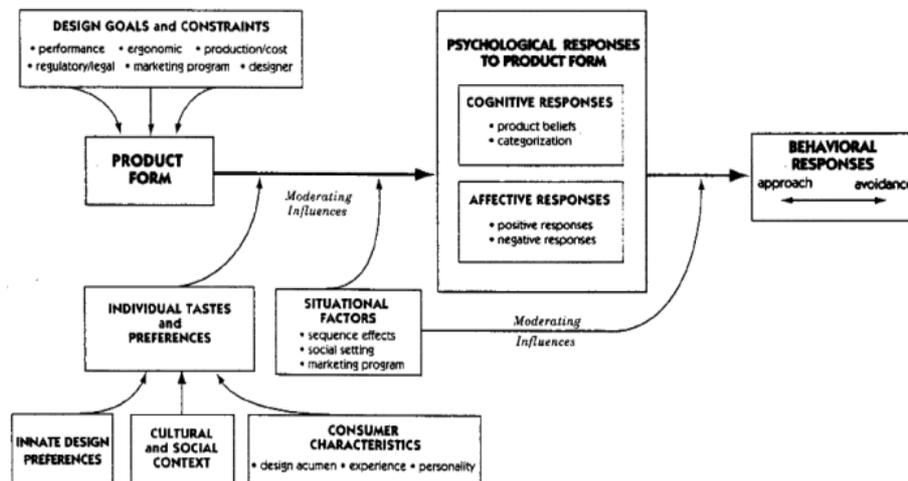


Figure 1. A model of consumer responses to product form

Source: Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. *Journal of Marketing*, 59, 17.

Accordingly to this study done by Bloch (1995), designers should create product forms based on consumer preferences but also they should take into consideration functional and ergonomic performance. The least part is focused on matching product to the consumer's ability to maximize safety, efficiency of use and comfort (Osborne, 1987). What we have to understand is that product form has different connotations: first it says something about the product itself and second it points out the usability of the product. The form together with texture, shape, color and sign communicate the feasibility and the attributes of the product. Johnson and Otley (1992) argued that visualization of the product, focusing on its appearance, functionality, production feasibility, product semantics, ergonomics and social factors is a key element in enhancing customer experiences. These experiences can be positive or negative based on previous perceptions that customer creates about the product.

3.1.2 Product Functionality and Utility

Some of the pleasure that customers derive from the product is through its use and how they feel about the quality and comfortability. Benton (1990) suggests that the success of design is based on the functional effectiveness of the product. The functional aspect refers to the product's structure characteristics or to the use the product is intended to (Croizer, 2014).

From the service perspective, functional design can be seen on the personal space and privacy that designers create when they design, restaurant, hotels or waiting areas. Studying customer behavior is a very important step in understanding how people will react to the design and the functionality of the product (Croizer, 2014). What we have to understand is that restaurants and in general the hospitality industry does not sell just a product, but an experience and more specific a sensory experience. In this context there are different studies analyzing the affect that the ambient of restaurants has on consumer behavior (Milliman, 1986; Wilson, 2003; Liu & Jang, 2009). Nevertheless, there is a limited empirical research in hospitality on the role that functional design has on consumer behavior (Heung & Gu, 2012). Most of the studies have been narrowed to the affect that functionality and spatial design has on employee's perspective (Sundstrom & Altman, 1989; Davis, 1984). Ryu and Jang (2008) identified the layout and the functional design dimension in restaurants based on the sitting arrangement and on psychological properties perceptions. A more detailed analyses of the functional and the instrumental

design benefits is done by Fiore (2010). Referring to her study, the instrumental or utilitarian dimensions that customer benefits in different services are focused on five important instruments; on physical comfort, on protection and safety, on quality, on efficiency and on sexual attractiveness. The first one, physical comfort deals with avoidance of negative sensations (Hollies, 1989). Temperature, humidity and air freshness are indicators of physical comfort (Fiore, 2010). Osborne (1987) argues that the temperature of the environment is negatively correlated to the price of the goods in the retail. The higher the price level of the merchandise, the lower the temperature. These findings are mainly based to luxury goods where customers are warmly dressed because they drive from air-condition homes, through air-conditions cars (Fiore, 2010). However, it has to be emphasized that if the temperature is too cold, it may drive back the customer from the store. The second instrumental dimension, protection and safety are focused on avoidance of harm. A poisoned food, a not well located hotel, a building with lack of fire alarms or a parking area with no light are some of the cases where customers feel not safe about the service or product they are getting. Quality assurance on the other hand entails the level of superiority or excellence (Zeithaml, 1998). This functional dimension is of great debate due to the subjective point of view that customers have about quality. Continuing Fiore (2010) analyses, a quality design is focused on durability and consistency. When there is a lack of physical product, the customers then perceive the quality based on the store design, brand name or environmental features. Referring to Dabholkar, Thorpe and Rentz (1996), service quality is focused on intangibility and is based on property presentation, employees' interaction and their reliability to problem solving. The fourth dimension of utilitarian benefits is efficiency, which deals with the ratio of outputs to inputs or efforts for achieving the desired outcome (Holbrook, 1994). The layout and functionality of spaces does affect directly the efficiency. Airports, retails and even hotel resorts put a lot of efforts on directing customers throughout the area. Carpets, tile floor patterns and product presentations may influence efficiency (Fiore, 2010). An efficient orientation within the store and a better-perceived store design does influence positively on the amount of time needed to complete the shopping experience inside the retail (Baker et al., 2002). And last but not least, the fifth dimension that deals with utilitarian design is sexual attractiveness that reveals the instrumental affect of beauty (Berscheid & Walster, 1974). Thus, people depend a lot on products and environments that enhance their aesthetic and attractiveness appeal.

4. Aesthetic Design

Aesthetic philosophical discipline dates back to the 17th century, when the German philosopher Baumgarten created the word "*Aesthetic*", linked to consideration of beauty, art and poetry (Hlobil, 2007). Would be interesting to commence the theory of aesthetic concept from the work of John Dewey, with his book "Art as Experience", from 1934. This American pragmatism philosopher argued that aesthetics grounds lie on the "museum concept of art" and if a person wants to understand the world of art should begin with and understanding of the world of everyday experiences (Stroud, 2010).

Below are given some of the most important contributors to the field of aesthetics design, starting from philosophers, mathematicians, psychologists and artists.

John Dewey (1859-1952)

Dewey argued that an artist should live the full experience and be part of that in order to produce an aesthetic activity and failure to achieve that will result in a lack of being aesthetic (Dewey, 1980). Additionally, he pointed out that aesthetic does have a fair amount of contribution to enriching live and nothing that lacks beauty can be fully useful because, "no matter how useful it is for special and limited ends, it will not be useful in the ultimate degree" (Hatch, 2012). Dewey (1980) based his studies in the field of culture, art, philosophy and psychology. He emphasized the context of artistry, intention and imagination and many other researchers have constructed their frameworks and research models based on the Dewey's theory (Zarantonello & Schmitt, 2010; Hatch, 2012).

Plato (428-348)

But what actually is aesthetic design and how does it contribute to the product success? Before coming to the answer, we have to get back to (428-348 B.C), more than two thousand years ago when Plato presented the theory of beauty in the Symposium, hold in the ancient Greek. The theme of the Symposium was love and during the philosophers dialogue, the question of beauty raised because beauty was seen as the main object of love (Dickie, 1997). Plato had a great interest in understanding the meaning of beauty. He tried to understand what all beautiful things have in common. Referring to Plato, beauty is either simple, with pure tones and single colors, or complex with measure and proportions parts in common. Dickie (1997) points out that Plato's perspective of beauty was focused more on the simple unity of things and beauty is a term that cannot be defined at all. Plato argued that you only have to experience beauty, if you want to find a meaning on what does it mean and how you

can use it. Anyhow, aesthetic is not only narrowed to beauty and love. Graham (2006) stresses that the most recognizable question in philosophical aesthetics is; what is art and why art matters? The first question deals with essential nature of art and the second one with the social aspect of art. There are many debates on the meaning and importance of art and aesthetic (Chappell & Hume, 1963), but universally speaking, art is a matter of pleasure and enjoyment and aesthetic preferences are expressions of the taste of the observer and not statements about the object and most importantly aesthetic judgments are subjective opinions.

Gustav Th. Fechner (1801-1887)

Another early contributor to the notion of aesthetics is Gustav Fechner with his book “Vorschule der aesthetik” in 1876. He is called the father of experimental psychology with his interest in empirical aesthetics (Philips, Norman, & Beers, 2010). Fechner was one of the first to use a metric to evaluate beauty based on the golden section and his main contribution to the modern psychology was to investigate the relationship between mind and matter. The golden section is been evaluated as one of the most important mathematical equations used in art and aesthetic evaluation. If a line is divided into two parts such as the ratio of the smaller part to the larger part is equivalent to the ratio of the larger part to the whole then the line is said to divide in its golden section (Crozier, 2014). Artists and designers to proportionally arrange the elements of design in an attractive and pleasing artifact use the golden section ratio given below (Hemenway, 2005).

$$\frac{1 + \sqrt{5}}{2} \approx 1.61803,$$

Daniele E. Berlyne (1924-1976)

It has to be emphasized that pleasant aesthetic design is difficult to be analyzed only on the proportion prospect of lines and shapes. Complexity and novelty are other components that influence the level of pleasantness to aesthetic design. Daniele Berlyne, an American psychologist who used the Fechner model of measuring aesthetics by adding behavioral orientation, has largely studied these components.

Berlyne (1971) argued that pleasurable emotions start at an indifferent level of arousal, increases due to complexity and then decreases again and become unpleasant when the complexity is high. The model is shown on the U curve theory developed by Wundt (1984) and is a continuation of Fechner’s theoretical and empirical tradition. From the U curve given below we do understand the proper link between aesthetic and emotion and in the U curve, the complexity variables taken from Berlyne (1971) were elements such as music and color. Berlyne had a special interest on arousal, emphasizing the importance that this emotional status had on the mediating variable. Additionally, he integrated neurophysiology to better understand the relationship between hedonic value and emotional arousal (Olds, 1973).

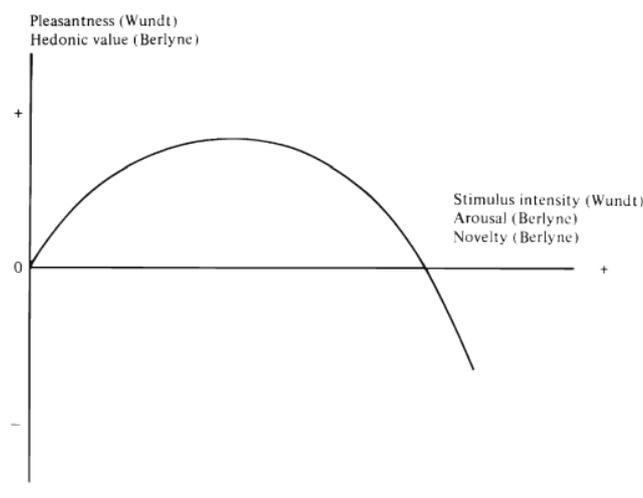


Figure 2. The Wundt/Berlyne curve on aesthetic emotional arousal

Source: Sluckin, W., Colman, A., & Hargreaves, D. (1980). Liking words as a function of the experienced frequency of their occurrence. *British Journal of Psychology*, 71, 163.

Referring to Cupchik (1986), the main goal of Berlyne in his aesthetic approach was to properly identify the “special class of drive”, the “striving novelty”, where three categories of drive have been identified. The first category is called “variation due to satisfaction” which is focused on the need of activity because of the monotony; the second one is named “curiosity”, emphasizing the active impulses used to find new sensations, experiences and knowledge and the third category is called “aesthetic interest”, which deals with forms that are interesting in themselves regardless of their representational content (Cupchik, 1986). What we appreciate from Berlyne’s work is that the most pleasing designs achieve some balance of simplicity and complexity, unity and diversity, order and variety (Crozier, 2014).

George D. Birkhoff (1884-1944)

The other author, called George Birkhoff, an American mathematician, extended the idea of complexity studying the relationship between, preference-order-complexity. The formula he created was $M=O/C$, where M represents the aesthetic measure, O is for order and C means complexity (Tarko & Grabska, 2011). With this formula the author wanted to capture the object’s beauty. Order and complexity are described as measures taken on sided figures such as the quality of angles, number of sides, degree of vertical symmetry and other polygon measures (Crozier, 2014). From Birkhoff perspective, beauty increases when complexity decreases. The interesting fact on Birkhoff studies is that he was one of the first to integrated mathematics and statistic data within the aesthetic values.

Gestalt Psychology (1920’s)

A remarkable work in the field of aesthetic design is also that of the Gestalt psychologists. Gestalt psychology was developed during 1920s by a group of German psychologists, Koffka, Kohler and Wetheimer and dealt mainly with sensor psychology and the perception of form. Gestalt is a German word that means “configuration” and the theory of Gestalt is widely used in human-computer interaction (Shneiderman & Plaisant, 2005), in art and visual communication (Behrens, 2002), in musicology (Carpenter, 1965) and in architectural design (Graham & Fain, 2006). Designers have been applied Gestalt laws due to human perception and tendency of people to group things.

Referring to Graham (2008), gestalt refers to a structure, configuration, or layout that is unified and has specific properties that are greater than the simple sum of its individual parts. The group of Gestalt psychologists is best remembered due to its contribution in demonstrating the importance of organization in visual perception. Among the three psychologists, Koffka was the one that focused more on aesthetics experience though its perceptual qualities and its relation with the intentional self (Spehar & Tonder, 2015). After that period, there have been different researchers applying the Gestalt psychology and one of them was also Rudolf Arnheim, who was a student of Wetheimer at Berlin University. Arnheim wrote a very interesting book, called “Art and Visual Perception”, where based on Gestalt psychology, he analyzed in details elements of art and aesthetic as that of form, shape, color, balance, movement, light, dynamics and expression.

4.1 Aesthetic Design Theory

Aesthetic or *pleasing appearance*, as defined by the American Dictionary of English Language (2006), is not a concept studied only from the philosophical point of view that argued the nature and expression of beauty, but is also a notion widely studied in the aspect of psychology, focusing on the psychological response to beauty experiences (Wang & Axinn, 2013). Aesthetic design is been seen as a very powerful tool used by marketers. Baker, Parasuraman, Grewal and Voss (2002), argued that a pleasing environmental design influence positively on customers’ mood and enhances the patronage intention and the willingness to return to the store. People may buy goods and service because they appear to them attractive, engaging or inspiring to their senses. The department stores, the product appearance or the space environment aesthetics where the product is being sold, does affect positively or negatively consumers’ purchasing behavior. Referring to Fiore (2010), aesthetic experience can be defined as the sensitive selection or appreciation of formal, expressive or symbolic qualities of the product or environment, providing no instrumental benefits that result in pleasure of satisfaction.

Schmitt (1999), a German psychologists was one of the main scholars studying the role that aesthetic has in the marketing discipline. He stated that aesthetic is engaged in three main areas; it deals with product and graphic design form, referring to packaging product and color, it associates with communication peripheral message, an area of research focused on persuasion and attractiveness of the presenter and third aesthetic cuts across symbolism, the aspect of space in spatial design. Additionally, the use of aesthetic design can be seen as an attempt to provide added benefits to customers and thereby to increase their willingness to pay more (Brandenburger & Stuart, 1996). Creative individuals and researchers coming from the design field of study disagree on the theories, which emphasize the generalization of aesthetic and beauty in art (Pye, 1978). Anyhow,

it has been an overall agreement that beauty is focused on certain lines, proportion, color and shapes that influence the individual eye. A notable thought on the beautiful design is that of Hamel (2008) who mentioned that great design is like porno, you know it when you see it. In its book, Ross (2012) mentioned that beauty is not a concept, but an experience that gives the highest pleasure possible. Coates (2003) discovered another concept of aesthetics impression, focusing on perception and product attractiveness. He pointed out that positive impressions are formed due to two important factors; the first one is information, which deals with novelty and contrast and the second one is concinnity that is related on how easy customers understand the product and is focused on order and sense element.

An interesting point of view is that of Candi and Saemundsson (2011), who argued that aesthetic design contributes in different ways to product success. These authors have studied the affect of impression aesthetics mainly in the service content.

Referring to them, aesthetic design affects the service environment competitiveness in three different ways. First, aesthetic design may be perceived as an extension of functional benefit, with a focus on service usability. Second, the aesthetic part of service can be used to foster the association with the brand and to better connect the buyer with the product. And third, aesthetic design increases customer benefits by enhancing the symbolic values to the product.

From these analyses, Candi and Saemundsson (2011) are generally in the same track of discussion regarding aesthetic impression with Crilly, Moultrie and Clarkson (2004). These authors argue that product evaluations are mainly made based on the elegance, functionality and the social significant they have. These visual and usability judgments that customers make about products, are mainly focused to their wants and desire satisfaction and not much on their needs (Lewalski, 1988).

It is essential for marketers nowadays to properly identify the role that aesthetic plays in marketing, because attractive products are more likely to get attention and to create impulse buying behaviors. But as we have mentioned, aesthetic impression can be used in a variety of settings, as in the physical product appearance, on visual communication, on service delivery and on the servicescape environment. Among these marketing broad areas of aesthetics applications, the servicescape aesthetics is the one that has got less attention from researchers (Pareigis, Echeverri, & Edvardsson, 2012; Mari & Poggese, 2013). Most of the studies so far have been investigating the color, shape and form of the physical goods (Bellizzi & Hite, 1992; Raghurib & Greenleaf, 2006) but only few have been focused in the impact that aesthetic design has on the servicescape environment. Anyhow, referring to Kumar, Purani and Sahadev (2013), marketing service researchers should incorporate studies from environmental psychology so to identify possible research gaps and ways to conceptualize and operationalize the effects of servicescape aesthetics on consumers. Kumar, Purani and Sahadev (2013) have been made some progress in the merging marketing with environmental psychology. They pointed out that the model presented in Figure 3, would help researchers to measure in a subjective way, the visual servicescape aesthetics.

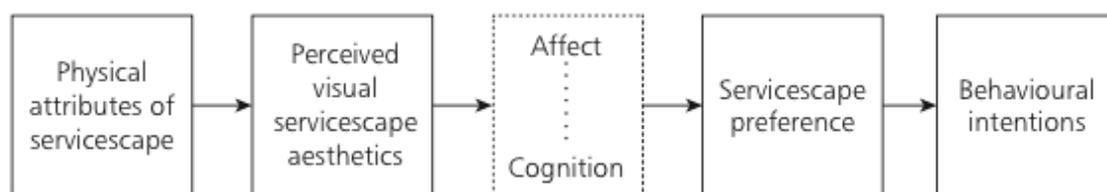


Figure 3. Aesthetic response variables

Source: Kumar, D., Purani, K., & Sahadev, S. (2013). Conceptualizing visual servicescape aesthetics: An application of environmental psychology. *The Marketing Review*, 13(4), 349.

If we deeper our aesthetic analyzes in the environmental psychology area, we will understand that aesthetic variables are conceptualized in two different perspectives, objectively or subjectively. Vacker (1993) has related the aesthetic attributes to beauty and has classified the subjective beauty based on the perception of elements (Aristotle's theory), and has identified the objective beauty based on the properties of elements (Plato's theory) which is related to consumer perceptions of products aesthetics. For brand managers, is important to understand

both approaches due to their influence on consumer responses. In order to analyze the subjective aspect of aesthetics, we should focus on the study of buyer's cognitive, affective and behavioral responses to media, entertainment, product visuals and arts, which Holbrook (1980) defines as consumer aesthetics. Nevertheless, there is still a great debate on what is perceived as high or low aesthetic appearance. People might appreciate the exterior of a car and virtually any other product, but it is not easy to properly identify what are the offerings that have as a primarily nature aesthetic attributes.

5. Symbolic Design

Design deals also with symbolic associations. This area of study investigates the importance that product has on consumers' self-expressions and identity formations (Rompay, Pruyn, & Tieke, 2009; Belk, 1988). Bloch (1950) argues that symbolic meanings of products are important to brand image perception. Symbols are things that stand for something else and express meanings by communicating an idea about the world (Fiore, 2010) Owing or using products like BMW, Apple, Vertu Mobile, Harley Davidson or Tesla electric car triggers users sense of belonging. Different studies have been made on the effects that symbolic features have on product experiences (Bagozzi, 1975; Levy, 1980, Hirschman, 1981).

Expressive and symbolic associations facilitate emotional connections between consumers and brands (Fiore, 2010). The first symbolic interactionism movement, which previously was known as the body of thought, was originated from the early writings of American psychologists and sociologists. The symbolic interaction focuses on how people understand their world and how they interpret the activity around them (Solomon, 1983). Although there have been researches addressing the symbolism aspect of consumption, there is still lack of studies on the symbolic meanings portrayed by visual product elements and especially by design (Rompay, Pruyn, & Tieke, 2009). However, Kandinsky (1926) mentioned that visual elements such as form, color, shape and texture do not influence only the functional aspect of product, but also its symbolic values. Additionally, symbolic values influence product selections that are inferior in tangible features (Levy, 1959). Since that period of time, Levy understood the potential of symbolic value, where part of that is design as well. He mentioned that the goods and services people buy are seen to have personal and social meanings in addition to their functions (Levy, 1959). Low (2008) argued that symbolic meaning comes either by experiences arising from embodied interactions with environment or from cognitive evaluations evaluating a product as a modern or old fashion. Spending a night in W hotels or attending an event organized by Fashion TV, embodies life style notions for visitors and attendees.

The interesting part of symbolic values is that we as consumers chose products more easily when they have specific symbolic values that we like, because these values are in harmony with our feelings and what defines us. On one hand people use and consume products for social appeal, displaying economic power so to maintain a particular social status and on the other hand they consume products for personal satisfaction (Dittmar, 1992). This author classified the symbolic qualities associated with product design into self-expressive symbolism and categorical symbolism. The first one, the self-expressive symbolism is used from designers so to impose individual and unique values to consumers (Snyder & Fromkin, 1980). The second one, the categorical meaning of symbolism, helps the consumer to integrate with other people in the same social status (Dittmar, 1992).

5.1 Design for Symbolic Association

In the industrial design academy, symbolic association is often related to product's appearance, to its use and to the subjective meaning it creates to consumers' mind (Kujala & Nurkka, 2012). In another article Kujala and Nurkka (2009) point out that people pay attention to product symbolism values because they want to maintain, enhance and express their identity and ideal image. Eating in a fancy restaurant or buying an expensive watch give to the owner a prestige value and enhance his/her social status. In a previous research, Csikszentmihalyi and Rochberg-Halton (1981) interviewed people to mention objects in their homes that were more addicted to them. What the researchers figured out was that the main reason these products were special to those people was because of the meaning products symbolized. To most of them the relation that products had with families, experiences, style and personal values were the most important indicator. Cove (1997), mentioned that to modern individuals buy products because of the linking value they embodied rather than for the use value they represent. Moreover, Creusen and Schoormans (2005) argued that portrayal of symbolic meaning is even more important than the aesthetic delight in product appearance. The main reason behind that is that products identify customers' self-expression and identity formation (Belk, 1988). The designs of W Hotels for instance, aim to attract clients, which demand luxury lifestyle, entertainment and exclusivity. The visual appearance and the service W Hotels provide, influence brand image and creates affective connotations into consumer mind.

Consumers use symbols to distinguish themselves and they chose the right fit, color or shape so to give a

particular message to the social group they interact. What is important to mention is that forms and their meanings change over time, as art, fashion and lifestyle does (Sanders, 2006). Symbolic qualities involve cognitive processes as well and Fiore (2010) mentioned that symbolic design is associated with psychological affects as that of self-acceptance, status and social acceptance. Referring to this author, self-acceptance is related to the confidence that each character embodies and can be affected by consumer decision on where to buy and what to buy, where the design of the product and the space where the product is sold become tangible indicators of the consumer's personal character. On the other hand, buying products so to impress others and to gain social standing is known as "conspicuous consumption" and is not related to the product or design benefits you get from using the product, but is related to being noticed, gaining admiration and affirming owners position in the social hierarchy (Mann & Sahni, 2014). At the end we can say that the association of symbolic design to social acceptance is related to consumption of similar products that are used by the social groups to which the person belongs, so the individual can confirm its similar position in the social hierarchy (Burt, 1982).

6. General Discussion

Environmental variables affect a wide variety of consumer behavior and evaluations. There have been different studies, analyzing the role that physical surroundings have on consumption behavior and this paper reviewed three main aspects of product and environmental design, focusing on functional, aesthetic and symbolic design. Brand managers are investing a vast amount of money in fashioning inspiring stores, unexpected hotel lobbies and introductory showrooms so to impress their visitors. Effective design spaces can help the company to better differentiate its products and services, support the product to have a higher quality and proper design spaces increase possibility to improve company's image. Searching on the effects that desirable or pleasurable experiences have on the product success is becoming a mainstream topic in the field of ergonomics and environmental psychology. Integrating design researches within the field of experiential branding has a special interest because of the multidisciplinary nature that design discipline has. It incorporates psychology, art, engineering and marketing, putting together the common ground for further studying the "design for experiences" concept. Attractive products make people feel good and customers today expect great design everywhere.

Further studies are recommended to examine how other marketing communications tools that are design oriented, such as infographics, exterior symbols, video, point-of-purchase advertising and instore displays influence shopping experience. Additionally it would be worthwhile to explore how product design affects customer loyalty. How can we use design to repeat business and how design affects word of mouth might be interesting studies that lead us to understand the relationship between design and product loyalty. And finally marketing researchers should continue to collaborate with other disciplines so to advance design understandings because great experiences are not only focused on industrial designers and marketers, but also include every customer aspect of interaction that shapes the impression of the brand and the entire company.

References

- Babin, B. J., Darden, W. R., & Babin, L. A. (1998). Negative Emotions in Marketing Research: Affect or Artifact? *Journal of Business Research*, 42, 271-285. [http://dx.doi.org/10.1016/S0148-2963\(97\)00124-0](http://dx.doi.org/10.1016/S0148-2963(97)00124-0)
- Baker, J., Parasuraman, D., Grewal, D., & Voss, G. (2002). The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions. *Journal of Marketing*, 66(2), 120-141. <http://dx.doi.org/10.1509/jmkg.66.2.120.18470>
- Baxter, M. (1995). *Product Design: A Practical Guide to Systematic Methods of New Product Development*. Chapman & Hall, London.
- Becker, S. (1978). Arts and Crafts. *American Journal of Sociology*, 83, 862-889. <http://dx.doi.org/10.1086/226635>
- Behrens, R. (2002). *False Colors: Art, Design and Modern Camouflage*. Dysart, Iowa: Bobolink Books.
- Benton, T. (1990). *Modernism in Design*. Reaktion Books.
- Belk, R. W. (1988). Possessions and the Extended Self. *Journal of Consumer Research*, 15(2), 139-167. <http://dx.doi.org/10.1086/209154>
- Bellizzi, J., Crowley, A., & Hasty, R. (1983). The Effects of Color in Store Design. *Journal of Retailing*, 59, 21-43.
- Berscheid, E., & Walster, E. (1974). *Physical Attractiveness, advances in experimental social psychology* (Vol. 7). New York: Academic Press.

- Berkowitz, M. (1987). Product Shape as a Design Innovation Strategy. *Journal of Product Innovation Management*, 4, 274-283. [http://dx.doi.org/10.1016/0737-6782\(87\)90031-2](http://dx.doi.org/10.1016/0737-6782(87)90031-2)
- Berlyne, D. E. (1971). *Aesthetics and Psychobiology*. Appleton Century Crofts, New York, USA.
- Bloch, P. H. (2011). Product Design and Marketing: Reflections After Fifteen Years. *Journal of Product Innovation Management*, 28, 378-380. <http://dx.doi.org/10.1111/j.1540-5885.2011.00805.x>
- Bloch, P. H. (1995). Seeking the Ideal Form: Product Design and Consumer Response. *Journal of Marketing*, 59, 16-29. <http://dx.doi.org/10.2307/1252116>
- Brandenburger, A. M., & Stuart, H. W. (1996). Value-based business strategy. *Journal of Economics and Management Strategy*, 5, 5-24. <http://dx.doi.org/10.1111/j.1430-9134.1996.00005.x>
- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand Experience: What Is It? How Is It Measured? Does It Affect Loyalty? *Journal of Marketing*, 73(3), 52-68. <http://dx.doi.org/10.1509/jmkg.73.3.52>
- Bruce, M., & Daly, L. (2007). Design and Marketing Connections: Creating Added Value. *Journal of Marketing Management*, 23(9-10), 929-953. <http://dx.doi.org/10.1362/026725707X250403>
- Bruce, M., & Whitehead, M. (1988). Putting Design into the Picture: The Role of product Design in Consumer Purchase Behavior. *Journal of the Market Research Society*, 30(2), 147-162.
- Bitner, M., & Servicescapes. (1992). The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56, 57-71. <http://dx.doi.org/10.2307/1252042>
- Butter, R., & Kripendorff, K. (1984). Product semantics: Exploring the symbolic qualities of form, in Innovation. *The Journal of the Industrial Designers Society of America*, 3(2), 4-9.
- Burt, R. S. (1982). *Toward a Structural Theory of Action: Network Models of Social Structure, Perception and Action*. London, NJ: Academic Press. <http://dx.doi.org/10.1016/b978-0-12-147150-7.50014-4>
- Candi, M., & Saemundsson, R. J. (2011). Exploring the Relationship Between Aesthetic Design as an Element of New Service Development and Performance. *Journal of Product Innovation Management*, 28(4), 536-557. <http://dx.doi.org/10.1111/j.1540-5885.2011.00827.x>
- Carpenter, P. (1965). Musical Form Regained. *Journal of Philosophy*, 64, 74-92. <http://dx.doi.org/10.2307/2022994>
- Chappell, V., & Hume, D. (1963). *The Philosophy*. Modern Library, New York.
- Chitturi, R., Raghunathan, R., & Mahajan, V. (2008). Delight by Design: The Role of Hedonic Versus Utilitarian Benefits. *Journal of Marketing*, 72, 48-63. <http://dx.doi.org/10.1509/jmkg.72.3.48>
- Coates, D. (2003). *Watches Tell More than Time: Product Design, Information and the Quest for Elegance*. McGraw-Hill, London, UK.
- Cove, B. (1997). Community and Consumption, Towards a Definition of the “Linking Value” of “Product or Services”. *European Journal of Marketing*, 31, 297-316. <http://dx.doi.org/10.1108/03090569710162380>
- Creusen, M. E. H., & Schoormans, J. P. L. (2005). The Different Roles of Product Appearance in Consumer Choice. *Journal of Product Innovation Management*, 22(1), 63-81. <http://dx.doi.org/10.1111/j.0737-6782.2005.00103.x>
- Crilly, N., Moultrie, J., & Clarkson, P. J. (2004). Seeing Things: Consumer Response to the Visual Domain in Product Design. *Design Studies*, 25, 547-577. <http://dx.doi.org/10.1016/j.destud.2004.03.001>
- Croizer, R. (2014). *Manufactured Pleasures; Psychological Responses to Design*. Manchester University Press.
- Csikszentmihalyi, M., & Rochberg-Halton, E. (1981). *The meaning of things, domestic symbols and the self*. Cambridge, UK, Cambridge University Press. <http://dx.doi.org/10.1017/CBO9781139167611>
- Cupchik, G. (1986). *A Decade After Berlyne: New Directions in Experimental Aesthetics* (pp. 345-369). Elsevier Science Publisher. [http://dx.doi.org/10.1016/0304-422x\(86\)90003-3](http://dx.doi.org/10.1016/0304-422x(86)90003-3)
- Dabholkar, A., Thorpe, I., & Rentz, O. (1996). A Measure for of Service Quality for Retail Stores: Scale Development and Validation. *Journal of the Academy Sciences*, 24(1), 3-16. <http://dx.doi.org/10.1007/bf02893933>
- Davis, V. (1984). The Influence of the Physical Environment in Offices. *Academy of Management Review*, 9(2), 271-283.

- Dewey, J. (1980). *Art as Experience*. Perigee (Putnam's Sons), New York.
- Donovan, R., & Rossiter, J. (1982). Store Atmosphere: An Environmental Psychology Approach. *Journal of Retailing*, 58, 34-57.
- Dickie, G. (1997). *Introduction to Aesthetics: An Analytic Approach*. New York: Oxford University Press.
- Dittmar, H. (1992). *The social psychology of material possessions: To have is to be*. St Martin's Press, NY: New York.
- Garling, T. (2014). Past and Present Environmental Psychology. *European Psychologist*, 9, 127-131. <http://dx.doi.org/10.1027/1016-9040/a000184>
- Graham, G. (2006). *Philosophy of The Arts: An Introduction to Aesthetics* (3rd ed.). Routledge.
- Graham, L. (2008). Gestalt Theory in Interactive Media Design. *Journal of Humanities & Social Sciences*, 2(1), 1-12.
- Graham, L., & Fain, C. (2006). *Greening Healthcare Design*. Hawaii International Conference on Arts and Humanities, Waikiki, Hawaii
- Fiore, A. (2010). *Understanding aesthetics for merchandising and design professionals* (2nd ed.). Fairchild Books.
- Hamel, G. (2008). *Innovative Management: A conversation with Gary Hamel and Lowell Bryan*. The McKinsey Quarterly.
- Hatch, M. (2011). The Pragmatics of Branding: An Application of Dewey's Theory of Aesthetic Expression. *European Journal of Marketing*, 46, 885-889.
- Hemenway, P. (2005). *Divine Proportion: Phi in Art, Nature and Science*. Sterling, New York, USA.
- Heung, V., & Gu, T. (2012). Influence of Restaurant Atmospherics on Patron Satisfaction and Behavioral Intentions. *International Journal of Hospitality Management*, 31, 1167-1177. <http://dx.doi.org/10.1016/j.ijhm.2012.02.004>
- Holbrook, M. B. (1980). Some Preliminary Notes on Research in Consumer Esthetics. *Advances in Consumer Research*, 7(1), 104-108.
- Holbrook, M. B. (1994). Axiology, Aesthetics, and Apparel: Some Reflections on the Old School Tie. In *Aesthetics of Textiles and Clothing: Advancing Multi-Disciplinary Perspectives* (pp. 131-141).
- Hollies, N. R. S. (1989). Visual and Textile Perceptions of Textile Quality. *Journal of Textile Institute*, 8(1), 1-18. <http://dx.doi.org/10.1080/00405008908659183>
- Hlobil, T. (2007). *Felix Meiner Verlag*. Hamburg 2007.
- Izard, C. E. (1977). *Human Emotions*. Plenum, New York. <http://dx.doi.org/10.1007/978-1-4899-2209-0>
- Johnson, P., & Otley, K. (1992). Basic Emotions, Rationality and Folk Theory. *Cognition and Emotion*, 201-223. <http://dx.doi.org/10.1080/02699939208411069>
- Jones, L. (1991). *Taste Today*. New York: Pergamon Press.
- Kandinsky, V. (1926). *Point and line to plane*. New York: Dover Publications.
- Kotler, P. (1973). Atmospherics as a Marketing Tool. *Journal of Retailing*, 49(4), 48-64.
- Kopec, D. (2012). *Environmental Psychology for Design*. Fairchild Books.
- Krippendorff, K., & Butter, R. (1984). *Product Semantics: Exploring the Symbolic Qualities of Form*. Annenberg School of Communication (ASC).
- Kumar, D., Purani, K., & Sahadev, S. (2013). Conceptualizing Visual Servicescape Aesthetics: An Application of Environmental Psychology. *The Marketing Review*, 13(4), 347-376. <http://dx.doi.org/10.1362/146934713X13832199716778>
- Kujala, S., & Nurkka, P. (2012). Sentence Completion for Evaluating Symbolic Meanings. *International Journal of Design*, 6(3), 15-25.
- Lewalski, M. (1988). *Product Aesthetics: An Interpretation for Designers*. NV: Design & Development Engineering Press.
- Levy, S. J. (1959). Symbols for Sale. *Harvard Business Review*, 37, 117-119.

- Liu, Y., & Jang, S. (2009). The Effects of Dining Atmospheric: An Extended Mehrabian Russell Model. *International Journal of Hospitality Management*, 28(4), 494-503. <http://dx.doi.org/10.1016/j.ijhm.2009.01.002>
- Löw, M. (2008). The Constitution of Space: The Structuration of Spaces Through the Simultaneity of Effect and Perception. *European Journal of Social Theory*, 11(1), 25-49. <http://dx.doi.org/10.1177/1368431007085286>
- Mann, B. J. S., & Sahni, S. K. (2014). Exploring the Drivers of Status Consumption for the Wedding Occasion. *International Journal of Market Research*, 57(2), 179-202.
- Mari, M., & Poggesi, S. (2013). Servicescape Cues and Customer Behavior: A Systematic Literature Review and Research Agenda. *The Service Industries Journal*, 33(2), 37-41. <http://dx.doi.org/10.1080/02642069.2011.613934>
- Mehrabian, A., & Russell, J. A. (1974). *An Approach to Environmental Psychology*. MIT Press, MA: Cambridge.
- Milliman, E. (1986). Using Background Music to Affect the Behavior of Supermarket Shoppers. *Journal of Marketing*, 46, 86-91. <http://dx.doi.org/10.2307/1251706>
- Nussbaum, B. (1998). Smart Design. *Business Week*, 102-107.
- Raghubir, P., & Greenleaf, E. A. (2006). Ratios in Proportion: What Should the Shape of the Package Be. *Journal of Marketing*, 70(2), 95-107. <http://dx.doi.org/10.1509/jmkg.70.2.95>
- Reddy, S., Chakrabarti, D., & Karmakar. (2012). Emotions and interior space design: An ergonomic perspective. *IOS Press*, 1072-1078.
- Ross, D. (2012). *A theory of pure design; harmony, balance, rhythm*.
- Richins, M. L. (1997). Measuring Emotions in the Consumption Experience. *Journal of Consumer Research*, 24, 127-146. <http://dx.doi.org/10.1086/209499>
- Ryu, K., & Jang, S. (2008). DINESCAPE: "A Scale for Customers' Perception of Dining Environments". *Journal of Foodservice Business Research*, 11(1), 2-22. <http://dx.doi.org/10.1080/15378020801926551>
- Rompay, Th, J, L., Pruyn, A. T. H., & Tieke, P. (2009). Symbolic Meaning Integration in Design and its Influence on Product and Brand Evaluation. *International Journal of Design*, 3(2), 19-26.
- Osborne, J. (1987). *Ergonomics at Work*. New York: John Wiley & Sons, Inc.
- Olds, J. (1973). *Brain mechanisms of reinforcement learning*. In D. E. Berlyne, & K. B. Madsen (Eds.), *Pleasure, reward, preference*. New York: Academic Press.
- Pareigis, J., Echeverri, P., & Edvardsson, B. (2012). Exploring Internal Mechanisms Forming Customer Servicescape Experiences. *Journal of Service Management*, 23(5), 677-695. <http://dx.doi.org/10.1108/09564231211269838>
- Pye, D. (1978). *The Nature and Aesthetics of Design*. Barrie & Jenkins, London, UK.
- Sanders, L. (2006). Design for Experiencing: New tools. *Emotions & Design*, 87-93.
- Schmitt, B. H. (1999). *Experiential Marketing: How to get customers to sense, feel, act and relate to your company and brands*. The free press, Simon & Schuster Inc.
- Shneiderman, B., & Plaisant, C. (2005). *Designing the User Interface*. London, United Kingdom: Addison Wesley.
- Shostack, G. L. (1977). Breaking Free From Product Marketing. *Journal of Marketing*, 41, 73-80. <http://dx.doi.org/10.2307/1250637>
- Spehar, B., & Tonder, G. (2015). Koffka's Aesthetic Gestalt. *MIT Press Journals*. http://dx.doi.org/10.1162/leon_a_01020
- Snyder, C. R., & Fromkin, H. L. (1980). *Uniqueness: The human pursuit of difference*. Plenum Press, NY: New York. <http://dx.doi.org/10.1007/978-1-4684-3659-4>
- Stroud, S. (2010). Toward a Deweyan Theory of Communicative Mindfulness. *Imagination, Cognition, and Personality*, 30(1), 57-75.
- Sluckin, W., Colman, A., & Hargreaves, D. (1980). Liking Words as a Function of the Experienced Frequency of their Occurrence. *British Journal of Psychology*, 71, 163-167. <http://dx.doi.org/10.1111/j.2044-8295.1980.tb02742.x>

- Solomon, M. R. (1983). The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective. *Journal of Consumer Research*, 10(3), 319-329. <http://dx.doi.org/10.1086/208971>
- Sundstrom, E., & Altman, I. (1989). Physical Environments and Work-Group Effectiveness. *Research in Organizational Behavioral*, 11, 175-209.
- Pawle, J., & Cooper, P. (2006). Measuring Emotions-Lovemarks, The future of Beyond Brands. *Journal of Advertising Research*, 38-48. <http://dx.doi.org/10.2501/S0021849906060053>
- Plutchik, R. (1980). *Emotion: A Psychoevolutionary Synthesis*. Harper & Row, New York.
- Philips, F., Norman, F., & Beers, A. (2010). *Fechner's Aesthetics Revised*. Department of Psychology and Neuroscience Program, Skidmore College.
- Upah, G. D., & James, N. F. (1985). *Situation Creation in Services Marketing*. In J. Czepiel, M. Solomon, & C. Surprenant (Eds.), *The Service Encounter*, Lexington (pp. 255-264). MA: Lexington Books.
- Vacker, B. (1993). Beauty and the Beast (of Advertising). *Advances in Consumer Research*, 20(1), 345-351.
- Wang, Y., & Axinn, C. (2013). In Search of Aesthetics in Consumer Marketing; An Examination of Aesthetic Stimuli from Philosophy of Art and Psychology of Art. *Academy of Marketing Studies Journal*, 17(2), 37-55.
- Wikstrom, L. (1996). *Methods for Evaluation of Products' Semantics* (PhD Thesis).
- Wilson, S. (2003). The Effect of Music on Perceived Atmosphere and Purchase Intentions in a Restaurant. *Psychology of Music*, 31(1), 93-112. <http://dx.doi.org/10.1177/0305735603031001327>
- Wundt, M. (1874). *Grundzüge der physiologischen Psychologie (Outline of physiological psychology)*. Engelmann, Leipzig, Germany.
- Zeithaml, A. (1988). Consumer Perception of Price, Quality and Value: A means-end Model and a Synthesis of Evidence. *Journal of Marketing*, 52, 2-21. <http://dx.doi.org/10.2307/1251446>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).