



## Use of Design Theories and Principles in Visual Brand Identity Elements in Commercial and Retail Banks

Donia M. Bettaieb\* & Abeer Alsobahi

Interior design and Furniture Department, Faculty of Human Sciences and Design,  
King Abdulaziz University, Jeddah 22253, Saudi Arabia

\*E-mail: doniamalek2@gmail.com

**Abstract.** Studies on the processes that link logos and space design aesthetics to visual perception and recognition of visual brand identity (VBI) remain scant. Consequently, this study analyzed the visual correspondence between visual brand identity elements such as logos and interior spaces in commercial retail banking companies by assessing the foundations of their aesthetics formation and the role of aesthetic principles, aesthetic appraisal, and aesthetic impression. Using a qualitative approach, four commercial retail banking companies in Jeddah, Saudi Arabia were analyzed through semi-structured interviews with professional designers and design academics. A comparative method was used to determine the visual correspondence between the aesthetics of the logos and the interior spaces. The findings confirmed the importance of using design characteristics and theories for designing the elements of VBI. The results encourage the use of design for building visual correspondence between the elements of a visual identity of brands. This study provides a useful addition to knowledge on the place of design principles in the creation of VBI.

**Keywords:** *aesthetics; branding; spatial design; VBI; logos.*

### 1 Introduction and Purpose of the Study

Visual brand identity (VBI) refers to the physical features of a product, service, or institution. It is a holistic capsule of everything that the customer can see and feel about a brand, manifested through a consistent relationship between the entity and its unique visual elements. It includes things like logos, photographs and other imagery, and even colors and fonts. The designs of the logo and interior spaces are two crucial elements that enhance the visual identity of any brand. Such identity is reflected through tangible and visible elements that make the brand stand out.

Logos are among the most powerful elements of a brand [1] because they influence brand knowledge and brand equity. They are among the main tools for attracting attention and communicating the brand image. They increase brand

---

Received November 12<sup>th</sup>, 2021, Accepted for publication July 11<sup>th</sup>, 2022.

Copyright © 2022 Published by ITB Institute for Research and Community Services, ISSN: 2337-5795,

DOI: 10.5614/j.vad.2022.14.2.8

recognition and differentiation. They are a means of eliciting an emotional response [2,3]. Goldman [4] states that establishing an emotional bond between customers and a company, as well as giving a brand the character of visual gratification, depends on the positive aesthetic appeal of logos. In his study, Bargenda [5] adopted a long-term approach towards the development of corporate identity through spatial arrangement and building brand awareness as aesthetic subjects, whose identities are reinforced by exposure to aesthetic and artistic experiences [5,6].

Interior space creates a framework to structure identity and determine institutional models that emerge from the design of space. According to Bargenda [5], the surroundings in which messages circulate are atmospheric channels on their own. They not only provide a basis for short-term communications but also aesthetic aspects of space design to increase brand value and engage emotionally with the postmodernist consumer. Consequently, Bargenda [5] observed that while space design is not viewed as a corporate marketing strategy, it still highlights the importance of understanding the customer's interpretation of the entity in order to obtain its communicative value and construct a complete identity. Therefore, the architecture and design of a space establishes a symbolic framework that defines the brand's implicit and gleaming image.

Several studies on sensory marketing have addressed the question of visual design [7,8]. They mainly focused on aesthetic beauty and aesthetic dimension, especially in terms of the sensual attractiveness of the design. Visual appeal is one of the most important selling points for any brand. Therefore, most companies dedicate huge resources to their visual design [8].

Contrary to the complex perspective wherein data are used to judge a brand as a whole, the design perspective primarily focuses on aesthetics. It especially distinguishes product design from services and considers the consistency between various visual elements of a brand. In general, visual branding is used for marketing to generate favorable subjective responses. It seeks to create and strengthen specific brand links. Therefore, marketing professionals must go beyond aesthetic beauty to examine the effects of visual design on other elements related to branding. Bajaj and Bond [8] emphasized the importance of consistency between the various elements of a brand identity (e.g., corporate design, corporate buildings, exhibition halls, packaging, advertising, and employee behavior).

Starting from this, the present study sought to understand in how far the visual brand identity of commercial and retail banks corresponds with the other elements of the brand identities of the banks, among them logos and interior spaces. To this end, this study investigated the considerations that inform the creation of brand aesthetics and especially the aesthetic principles, aesthetic

appraisal, and aesthetic impression in selected institutions.

The following research questions about the selected banks' VBI formed the basis of the study:

1. To what extent do the elements of the VBI (such as logos and interior spaces) reflect the use of design principles and theories?
2. In the designer's opinion, how do the elements of the VBI demonstrate the application of aesthetic design theories and principles during the creation of VBI elements?
3. In the view of the designers, what are the most important guidelines when designing VBI elements and establishing a visual relationship between them?

The rest of this paper begins with a background appreciation of the notion of VBI as a curtain raiser for what is to follow. We delve into the most important elements of VBI, design characteristics and perception theory. We then look at the perceptual characteristics of interior spaces. This is followed by a brief presentation of what the study consisted of, under methodology. Finally, the results are presented and discussed. We wrap up with a number of recommendations in the conclusion.

## **2 Background**

The extant literature on consumer reactions to logos and the appearance of interior spaces is quite rich. It is difficult to draw firm demarcations while surveying the design elements in brands and spaces, because nearly everything documented seems to be perceptually significant. Aesthetics, psychology, and marketing are common subjects of interest, in addition to design studies, or graphic designs and interior environments. However, comprehensive knowledge on the processes linking the design aesthetics of logos and spaces to the visual perception and recognition of VBI remains insufficient.

### **2.1 VBI and the Characteristics of Logos as Its Most Important Element**

VBI is an entity that is continuously negotiated and collectively produced [9]. Many parties are involved in its creation. They include people who work in marketing, graphic design, product design, and design managers. Art directors define VBI as an organization's entire 'look and feel', which is manifested through the consistency between the brand, its business model, and its specific graphic aspects [9]. VBI may also be defined as the merging of all the visual branding aspects used to represent a brand without relying on any of them

separately. Therefore, VBI can be regarded as a brand's overall visual style – an established entity that cannot be broken down into its visual components [10]. Visual triggers are important components for strategic branding. Logos, banners, packaging, product design, advertisements, and websites are just a few examples of such motivators [11].

According to Keller [1], a logo is among the most effective elements of a brand identity, because it significantly affects overall brand awareness and brand equity. Certainly, logos attract attention, communicate brand image, increase brand awareness and distinction, and elicit emotional reactions [11,12]. Henderson *et al.* [11] identified qualities that logos should embody to trigger specific responses. They include shape, color, and typeface. A logo is “a graphic design that a company uses, with or without its name, to identify itself, or its products.” [11,12].

## **2.2 Design Characteristics and Theories**

### **2.2.1 Aesthetics**

The notion of aesthetics is usually divided into two levels. In the case of product aesthetics, it may signify how the senses perceive things. This is especially the sense of vision [13,14]. In the context of aesthetic experiences, the notion may signify a specific component of the cognitive response. It may be the perception of how pleasant (or unpleasant) the process of considering an object is [1,15].

Client reactions to art, advertising, packaging, product design, logos, branding, service spaces, and purchasing decisions are influenced by aesthetics [16]. According to Schmitt and Simonson [17], aesthetics define the construction and management of a brand's identity and image. In this study, aesthetics signify the appearance of logos and interior design.

According to Veryzer [18], theories of aesthetics are created by people and societies. People create physical structures in the outside world in response to sequences of subconscious perceptions. They come across most of the motifs and cues that lead to these responses quite early in life, although they may change over time, or be impacted by society [11,19].

‘Aesthetic principles’ refers to underlying norms that influence the techniques used to organize the key individual attractions in a product's design, to give it a universal appeal [20]. In addition, these norms may be perceived as criteria consumers use to make choices that are based on what they see as a product's aesthetic appeal [16].

Aesthetic principles such as rhyme, rhythm, and emphasis, are frequently used to enforce a composition's metaphoric or utilitarian significance. They make include such things as religious and cultural cues and bars. Meanings in such contexts are vulnerable to subjective interpretation [16]. Berlyne's [21] psychological theory of aesthetics floats the notion of aesthetic arousal, or arousal potential. It defined an object's potential to arouse a positive response – to look attractive to an observer. Accordingly, the appeal is based on the characteristics of an object rather than on the traits of the perceiver. According to Berlyne [21], collative variables determine an object's arousal capability. The structural features of the stimulus, such as complexity, ambiguity, novelty, and familiarity, are defined through collative variables. According to the psychobiological theory of aesthetics, stimuli with an average arousal potential elicit the most positive response from a perceiver, whereas those with a very low or high arousal potential elicit unpleasant responses [22]. The stimulation that arises from a product's perceived attractiveness (or unattractiveness) is called aesthetic impression [14].

## 2.2.2 Perception Theory

### 2.2.2.1 Gestalt

Gestalt theory, as proposed by Koffka [23] and Arnheim [24], is one of the most famous theories of perception. It challenges the notion that the description of the essential parts of an object is sufficient to explain the entire object. Instead, it suggests that all the parts must first be recognized, followed by the individual elements [22]. Garner and Clement [25] and Henderson *et al.* [11] indicated that according to Koffka [23] and Kohler [26] the variables that influence perception are also the stimuli of pleasantness in the object. These variables are simplicity, symmetry, and unity. Accordingly, people favor simple, symmetric, and cohesive designs, with a sense of proportion among the three.

Wertheimer [27] and Moshagen and Thielsch [22] observed that Gestalt theory primarily focuses on perceptual organization rather than aesthetics. They state that it explains how stimuli are perceived and mentally organized. Various grouping concepts (e.g., similarity, closure, and proximity) have been determined under the principles of *prägnanz*. The general law of *prägnanz* reflects the tendency to prefer the simplest and most stable figure instead of complex or ambiguous objects. Where a complex object is preferred, the brain has already made it appear as simple as possible. Patterns originate from regular and basic stimuli. Thus, *prägnanz*-compliant stimuli are regarded as good Gestalts, which are visually pleasing.

### 2.2.2.2 Perceptual Fluency Theory

How easily does the perceiver process an object in the mind and recognize it? The processing fluency notion connects aesthetic perception with the demand that an object places on the perceiver to process it in the mind. Anything that the perceiver processes easily can be attractive to him or her. From the interaction perspective, the qualities of the object and those of the perceiver interact to determine aesthetic pleasure [22].

Henderson *et al.* [11] observed that stimuli that we perceive with ease are also easier to recognize. This suggests that simplicity, symmetry, and balance may facilitate easier recognition. However, in the absence of actual familiarity, symmetry, and balance could produce a false sense of recognition. Some studies have also suggested that perception of an object can be fluent without recognition, and that this could significantly impact mood [28].

## 2.3 Perceptual Characteristics of Interior Space

Schroeder [29] was particularly interested in architectural expression. He observed that “few studies put architecture at the centre,” despite the fact that “architecture expresses psychological, cultural, and consumer values.” Subsequently, Bargenda [5] explained the importance of communication for architectural expression as a perimeter signaling system, because it generates meaning in relation to corporate identity and self-perception, while also creating experiential and relational value among consumers. Interior designers choose layout, lighting, color schemes, furniture, decorations, textures, and how to mix these elements to support a comprehensive approach [30,5].

Space design is not perceived as an overt corporate marketing discourse. It requires the observer’s interpretive engagement to obtain communicative value and build a complete identity. Hence, the design of a space provides a symbolic framework that defines the implicit and bright perception of the brand [5]. Early Gestalt psychologists’ contributions include the concept of part-whole perceptual distinctions [23,27,31]. A room’s substance and meaning develop from the combination of several elements that, together, form a significantly richer perceptual whole than each individual element viewed on its own [31,32]. Gestalt psychology emphasizes the categorization of stimuli. That is, people often recognize elements in an environment as parts of a greater whole (unit) rather than as nuanced items that stand alone [21,31,33,34]. Identical units of an interior space, such as floors, walls, and ceilings, may be highlighted or treated as backdrops in two different interiors.

Research on consumer processing of design has shown that as consumers perceive specific design components, such as colors, shapes, and surfaces, they classify them into more complicated categories [18,31]. These categories can be based on generic design aspects on a more moderate level [31,35]. The holistic approach also emphasizes that the environment's 'shell' (interior architecture) and 'content' (the design within the shell) shape visitor behavior and impressions of public spaces, sports stadiums, and others, such as theatres and residential projects [31,36].

### **3 Study Methods**

This study was conducted in the city of Jeddah, in the Kingdom of Saudi Arabia, in 2021. Analytical and comparative methods were used for analysis. Existing literature was analyzed to construct concepts related to VBI. The focus in these surveys was especially on the logo, which we consider the most important element of VBI. Other areas, like design characteristics, perception theory, and perceptual characteristics of interior spaces, were also examined.

In addition, an analytical method was used to determine observers' perceptions of the aesthetics of a logo and interior space through their look and feel. Data were collected through semi-structured one-on-one interviews. Images were presented to design specialists, who were selected as discussed below. The aim was to identify the aesthetic principles (AP) from their subjective perspectives on aesthetics, aesthetic impression (AI), aesthetic appraisal (AA), and designers' opinions.

A comparative method was used to determine the visual correspondence between the aesthetics of logos and interior spaces (through their look and feel from images). Design guidelines were generated to activate the role of VBI in retail banks to enhance the concept of VBI as a necessary factor for consolidating mental images.

#### **3.1 Data Collection Procedures**

##### **3.1.1 Case Selection**

The following criteria were used to select responsive cases:

1. *Logo design characteristics*: Following Wheeler [37], the study relied on the elements of the perceptual sequence in the design of logos, which include shape, color, and content.
2. *Interior space*: The study established the specific function of space in select cases. For example, both the shell and content (as discussed above) of the main foyer – including tellers' windows, waiting areas, furniture,

ceilings, and floors. Space images were considered as cases that reflected the visual space (2D and 3D) organization.

Any reference to the logo in the interior space was deleted to maintain the anonymity of the space. The participating banks were coded for their logo and interior space (See Appendix, Table 1).

### **3.2 Survey/Interview**

The interviews were conducted using a combination of multiple-choice questions and open-ended questions. First, the interview card was presented to a statistics consultant to check for the validity and reliability of the study. Second, a pilot interview was conducted with two colleagues, working in the field of interior design, to check the clarity of language, themes, and questions. Based on this, certain suggestions were given for consideration, based on four classes of design axes, as discussed below. Consequently, some of the questions were rearranged and reworded for clarity.

The study sample comprised 16 design professionals and academics. They were selected according to the following criteria:

1. design professionals from spatial design, such as architects; interior design; landscape design; graphic design; product design, and so on;
2. academic professionals from multiple universities in Jeddah; and
3. professionals with experience between 5 and 20 years in the field.

The participants were informed of the study's purpose, the confidentiality of the data, and that the data would solely be used for scientific research. Each participant received a consent form, which included the study's purpose and information on the researchers.

#### **3.2.1 Instrumentation and Development of the Interview**

A sample interview card was designed for collection of basic data. Accordingly, the card sought to draw out answers and collect data that would do the following:

1. identify the common perceptual AP for designers, regarding logos and interior spaces by focusing on subjectivist perspectives on aesthetics;
2. identify the existence of the potential correspondence between logos and interior spaces (AA) for designers by referring to the psychobiological theory on aesthetics;
3. identify the existence of a potential correspondence between logos and interior spaces (AI) for designers by focusing on how perception is organized (such as unity, symmetry, and simplicity) and its potentials (easy to perceive, attractiveness...); and

4. test the level of visual correspondence of each brand and reveal its limitations by highlighting whether the design characteristics are easy to recognize.

The interview questions were presented in English and data were collected either through in-person interviews at a cafeteria or at their company, or remotely via Zoom, according to the participants' situation and preference. The interviews lasted between 30 and 45 minutes each. They included a brief presentation on VBI conducted by the researchers. Then, the following four axes were addressed:

1. The first axis included questions on the participant's basic information such as whether they were academics or practicing professionals, their occupation (academic/academic-level or professional freelancers, art directors, project managers, etc.), years of experience, and preferred Saudi bank.
2. The second axis included questions about perceptual logo aesthetics through its look and feel from images.
3. The third axis comprised questions about perceptual interior space aesthetics through its look and feel from images.
4. The fourth axis included questions about the visual correspondence between logo and interior space based on the design characteristics and theories.

Finally, the interview asked for the designer's opinions/visions. The answers were collected and categorized according to a set of tables via Microsoft Excel.

### **3.3 Study Sample**

The sample included 16 designers. First, the participants' characteristics were analyzed according to their area of specialty (academics or professionals), years of experience, exposure to commercial projects, and their preferred Saudi bank. Of them, 50% had an academic background and 50% were professionals. Further, 62% were interior designers and 31% were graphic designers, while 6% were architects. In terms of experience, 50% had 5 to 10 years of experience, 19% had 15 to 20 years of experience, 19% had less than 5 years of experience, and 6% had over 20 years of experience. As for their academic profiles, 38% were lecturers, 25% were teaching assistants, 25% were associate professors, and 13% were full-time professors. In terms of professionals, they varied between graphic designers, interior design freelancers, design consultants, and interior design department managers. All professionals worked on commercial projects. From the sample, 94% preferred the Saudi commercial bank, while 6% chose other banks.

### 3.4 Data Analysis

The data were analyzed in several stages. In the first stage, the aesthetic theory framework was defined by a literature review, and the primary bases of analysis were identified and categorized as shown in Table 1.

**Table 1** Conceptual development and theoretical framework.

Framework	Features of analysis
<b>Aesthetic principles</b>	Subjective perspective on aesthetics
<b>Aesthetic impression</b>	The sensation that results from the perception of attractiveness (or unattractiveness) in products: Gestalt theory
<b>Aesthetic impression</b>	The sensation that results from the perception of attractiveness (or unattractiveness) in products: perceptual fluency theory
<b>Aesthetic appraisal</b>	Berlyne's [21] psychobiological theory on aesthetics
<b>Aesthetic appraisal</b>	Stimuli that are easier to perceive will be easier to recognize [11]
<b>Aesthetic appraisal</b>	Perceptual fluency can occur: (i) with recognition (symmetry and balance create a feeling of familiarity), or (ii) without recognition
<b>Aesthetic appraisal</b>	Collative variables: the structural properties of the stimulus such as complexity, ambiguity, novelty, and familiarity [22]

In the second stage, the interviewees' perceptions of the perceptual aesthetics of logos and spaces were analyzed separately in preliminary tables (aesthetic principles from a subjectivist perspective; the AI and AA of the aesthetics of brand identity elements; see Appendixes 2, 3, and 4 of data analysis). For each identification of the potential correspondence between VBI and theories, the following three steps were followed.

### 3.4.1 Step 1

The interviewees' responses related to logos and interior spaces were codified and classified separately for all cases based on the characteristics (content/typeface, color, and shape/form) and the following considerations:

1. Existing stimuli were reflected through a positive response, that is, 'yes'.
2. The value of the stimuli increased with an increase in the number of positive responses.
3. The value of the stimuli was defined according to the number of interviewee responses for logos or interior spaces. A value was considered *low* and coded as '0', when the number of interviewee responses varied between 0 and 7. A value was considered *average* when the number of interviewee responses was equal to 8; this value was neutral. A value was considered *higher* and coded as '1' when the number of interviewees' responses varied between 9 and 16.

Then, interviewees' responses on logos and interior spaces were analyzed separately for all cases based on the perceptual aesthetics of the logos or spaces through the look and feel from images, and certain characteristics (content/typeface, color, shape/form). Consequently, '0' was accorded to the principles of '*was not perceived*' in all characteristics and '*not perceived*' in two or three characteristics. The value of '0' signified that while the aesthetics of the logo and space were perceived, they were hardly identified. Further, '1' was allotted to responses wherein the principle for all the characteristics or that of two or three characteristics were perceivable. This value signified that the perceptual aesthetics of the logo or space were both strongly perceived and easily identified.

### 3.4.2 Step 2

Data were unified into a table, including the details of the visual correspondence between logos and interior spaces (see Table 3 in Appendices 2, 3, and 4). The following considerations were followed to identify the correspondence of design characteristics and theories in each case. First, instances where the perceptual aesthetics of the logo and space through the look and feel from images embodied correspondence and were easily identified in both logos and spaces were coded as '1' when:

1. the principle perceived as a stimulus in the logo (L) was coded as '1'; and
2. the principle perceived as a stimulus in the space (S) was coded as '1'.

Second, for instances where the perceptual aesthetics of the logo and space did not embody correspondence and were hardly identified in both logo and space were coded as '0' when:

1. the principle perceived as a stimulus in the logo (L) was coded as '1';
2. the principle perceived as a stimulus in the logo (L) was coded as '1';
3. the principle perceived as a stimulus in the logo (L) was coded as '0'; and
4. the principle perceived as a stimulus in the space (S) was coded as '0'.

In more complicated situations, when the principle perceived as a stimulus in the logo (L) was coded as '0' and that of the space (S) was coded as '1', or vice versa, the correspondence did exist and was coded as '1' only when it was perceived in more than one characteristic for both the logo and the space. Correspondence did not exist when it was not perceived in two characteristics. Specific information should be mentioned. The perceptual aesthetics of the logo and space may have partial, weak, and unpronounced correspondence.

To identify the total value of aesthetic principles, and appraisal and impression, a scale was created, according to the numbers of existing characteristics for each case (total characteristics for aesthetic principles: 2; for appraisal aesthetics: 4; for impression aesthetics: 5). The result of the existing correspondence in each case was extracted by adopting the sum of the symbols for all principles as follows:

**Table 2** Conceptual development and theoretical framework.

<b>Cases</b>	<b>Aesthetic principles (total: 2)</b>	<b>Aesthetic appraisal (total: 4)</b>	<b>Aesthetic impression (total: 5)</b>
<b>Low correspondence</b>	0	0-1	0-2
<b>Average correspondence</b>	1	2	3
<b>High correspondence</b>	2	3-4	4-5

\*Aesthetic characteristics found in each case were elaborately described when the value presented qualitative information.

The existing visual correspondence based on aesthetics was constructed from an elementary approach to a holistic approach. Focusing on the characteristics of logo and space (form/shape, color, and content), the limitations of this process were considered, especially regarding the nature of each characteristic and the power of its perceptual dimension (e.g., color is more attractive than shape and content and has a stronger influence on perception).

### 3.4.3 Step 3

The level of visual correspondence for each visual brand was tested. Their limitations were revealed by identifying whether design characteristics of the logo and interior space aesthetics were easier to recognize. Further, aesthetics and perception were used to present designers’ opinions/visions about the correspondence between the visual design characteristics in the commercial retail banking context. The most important guideline for designing brand elements was followed to construct a visual relationship between them.

## 4 Results and Discussions

Three outcomes were identified for the level of visual correspondence between AP, AA, and AI.

### 4.1 Aesthetic Principles (AP)

For existing visual correspondence between the AP of brand identity elements, the results showed (Table 3) that correspondence existed in all cases but with different value levels. Values ranged between 1 and 2. The average value was allocated to three cases (i.e., B-1NCB, B-2 ALJ, B-3 ANB) and a high value was allocated to B-4 SABB.

Comparing the results of all cases, the common perceptual aesthetic principles for logos and interior spaces for designers were found to exist between the first case (B-1 NCB) and the fourth case (B-4 SABB) and between the second case (B-2 ALJ) and the third case (B-3 ANB).

**Table 3** Visual correspondence between elements based on AP (from subjective perspective on aesthetics).

Aesthetic principles Case #	Subjectivist perspective on aesthetics (two principles)			
	Emphasis	Rhythm	Total/2	Value
B-1 NCB	1	0 with correspondence in color only	1/2	Average corresponde nce
B-2 ALJ	0	1	1/2	Average corresponde nce
B-3 ANB	1	1 with correspondence in color only	1/2	Average corresponde nce
B-4 SABB	1	1	2/2	High corresponde nce

---

<b>Codification</b>	(1) = Correspondence exists (0) = Correspondence does not exist (0 with comments) = Correspondence does not exist for the majority of the characteristics (1 with comments) = Correspondence exists for the majority of the characteristics
---------------------	--

---

The results for each case from the designers' holistic perspective were as follows:

#### **4.1.1 Case 1: B-1NCB**

Visual correspondence between the AP of brand identity elements was identified for balance, proportion, contrast in color, clarity, emphasis, and rhythm in color. Correspondence between logos and spaces was found in emphasis through shape and content. Rhythm in color were perceived in both elements. Familiarity existed in the logo, and novelty was identified in the space, however, no correspondence was detected. Out of 8, the total value of correspondence was 4 (AP), which is considered average and not greatly pronounced.

#### **4.1.2 Case 2: B-2 ALJ**

Visual correspondence between the AP of brand identity elements was identified for balance, proportion in shape and color, novelty of shape and content, contrast in color, clarity, and rhythm. Familiarity was not perceived in both the logo and the space. Emphasis was strongly perceived in the logo but not the space (only 8 designers perceived emphasis for space content).

Correspondence between logo and space was found in rhythm through shape and content, although it was weak (perceived by only 8 designers). Therefore, the total value of correspondence was 5 (AP), which is considered a relatively high level of visual correspondence between logo and interior space.

#### **4.1.3 Case 3: B-3 ANB**

Visual correspondence between the AP of brand identity elements was identified for balance, proportion, familiarity, clarity, emphasis, and rhythm in association with color only. Novelty and contrast were not perceived for either the logo or the space. Correspondence strongly existed for emphasis in shape and color. The same was not true for rhythm. However, the interviewees seemed to agree that there was rhythm in the color of both the logo and the space. Therefore, the score of 6 (AP) was considered a high-level value due to the influence of color.

**4.1.4 Case 4: B-4 SABB**

Visual correspondence between the AP of brand identity elements was identified for balance, proportion, novelty, familiarity, contrast, and clarity. Correspondence existed for familiarity of content and contrast in color. Further, correspondence was strongly perceived for emphasis in rhythm for all the characteristics of the space and the logo. Therefore, the total value of correspondence was 5 (AP), which is considered relatively high.

**4.2 Aesthetic appraisal (AA)**

For existing visual correspondence between the AA of brand identity elements, the results showed (Table 4) that correspondence almost did not exist in all cases at the same level. This corresponded to 1 out of 4, which was considered a very weak correspondence. This suggests that shaping the visual aesthetic aspect from a design perspective requires the involvement of all the characteristics to build VBI and enhance the quality of visual branding.

**Table 4** Correspondence between the elements based on AA in reference to Berlyne’s (1971) psychobiological theory on aesthetics.

Aesthetic appraisal	Complexity	Ambiguity	Novelty	Familiarity	Total of 4	Value
<b>Cases</b>						
<b>B-1 NCB</b>	0	0	0	1	1/4	Low correspondence
<b>B-2 ALJ</b>	0	0	0	1	1/4	Low correspondence
<b>B-3 ANB</b>	0	0	1	0	1/4	Low correspondence
<b>B-4 SABB</b>	0	0	1	0	1/4	Low correspondence
<b>Codification</b>	0 = Correspondence does not exist (with specifics comments) 1 = Correspondence exists					

Results for each case from the designers’ holistic perspective are as follows (see Appendix 2 as well):

**4.2.1 Case 1: B-1NCB**

The interviewees’ perceptions regarding the structural properties of the interior space in terms of the complexity of the logo indicated the non-existence of complexity. However, 12 designers (75%) considered complexity as a stimulus in the interior space, which indicates that there was no correspondence between the complexity of the structural properties of both the logo and the interior space.

From the interviewees' perceptions on the structural properties of the logo and the interior space, it was evident that ambiguity was not considered as a stimulus. Only 3 designers (19%) and 6 responses (37%) perceived the logo and the interior space, respectively, as ambiguous. From the total, 4 interviewees (25%) perceived the logo as novel, compared to 11 responses (67%) for the interior space. Correspondence did not exist for the novelty of the structural properties of the logo and the interior space. From the total, 14 interviewees (87%) perceived the logo as familiar, while 9 (56%) perceived the interior as familiar. This indicates that most interviewees perceived familiarity in both logo and interior as a stimulus. Thus, correspondence existed for familiarity.

#### **4.2.2 Case 2: B-2 ALJ**

According to the interviewees' perceptions regarding the structural properties of the logo, 11 (44%) perceived complexity as a stimulus in the logo, while only 6 (38%) perceived the same in the interior space. Therefore, correspondence did not exist.

Ambiguity was not perceived as a stimulus because it had a low value for both elements; therefore, correspondence did not exist for the same. From the total, 6 interviewees (38%) perceived the logo as novel, compared to 1 designer (1%) for the interior. This means that novelty was not considered a stimulus for the structural properties of both elements. Thus, correspondence did not exist for the same. Regarding familiarity, 12 interviewees (75%) found the logo familiar and the same was true for 11 designers (67%) in the case of the interior space. Therefore, correspondence strongly existed, and familiarity was easily identified for both elements.

#### **4.2.3 Case 3: B-3 ANB**

According to the responses, 13 designers (81%) perceived complexity as a stimulus in the logo, while none perceived it as such in the interior space. Thus, correspondence did not exist. Only 2 interviewees (13%) perceived the interior space as ambiguous while in the case of the logo, 11 interviewees (69%) perceived ambiguity as a stimulus for the structural properties of the interior space. Therefore, correspondence did not exist. Most interviewees perceived novelty as a stimulus in both the elements, which displays its high correspondence. The logo was perceived as familiar by 7 interviewees (44%) and the interior space was perceived as familiar by 11 interviewees (67%).

#### **4.2.4 Case 4: B-4 SABB**

Only 2 interviewees (13%) perceived complexity as a stimulus in the logo, while

10 designers (63%) perceived complexity as a stimulus in the interior space. Thus, visual correspondence did not exist between logo and space. Of the total, 13 interviewees (81%) perceived the interior space as ambiguous, while only 6 (38%) felt the same for the logo, implying that ambiguity was considered as a stimulus in the interior space but not the logo. Therefore, correspondence did not exist between them. Further, the interviewees agreed that novelty was used as a stimulus in both elements. Of the total, 12 interviewees (75%) perceived familiarity as a stimulus in the logo, while seven (44%) perceived it as such in the interior space, which means familiarity was used as a stimulus only in the structural properties of the logo but not necessarily in the interior space.

### 4.3 Aesthetic Impression (AI)

For existing visual correspondence between the AI of brand identity elements based on how perception is organized (such as simplicity, symmetry, and unity), and its potentials (easy to perceive, or attractiveness), the results (Table 5) revealed that correspondence existed in all cases but with different value levels. The values ranged between 2 and 5. Low correspondence (value = 2) was identified in the first case (B-1NCB) and the second case (B-2 ALJ), while high correspondence was identified in cases B-3 ANB and B-4 SABB.

Shaping the visual aesthetic aspect from a design perspective makes them easily perceivable. Simplicity, symmetry, and unity are fundamental characteristics with visual correspondence in these cases. The results for each case from the designers’ holistic perspective were as follows (see Appendix 3 as well):

**Table 5** Correspondence between the elements based on AI, focusing on how perception is organized (unity, symmetry, and simplicity) and its potentials (easy to perceive, attractiveness).

Aesthetic impression	Unity	Symmetry	Simplicity	Easy to perceive	Attractiveness	Total of 5	Value
<b>Cases</b>							
B-1 NCB	1	0	0	0	1	2/5	Low correspondence
B-2 ALJ	1	0	0	1	0	2/5	Low correspondence
B-3 ANB	1	0	1	1	1	4/5	High correspondence
B-4 SABB	1	1	1	1	1	5/5	High correspondence
<b>Codification</b>	0 = Correspondence does not exist (with specifics comments) 1 = Correspondence exists						

#### **4.3.1 Case 1: B-1NCB**

From the total, 12 designers (75%) found unity in the interior space, while 7 (44%) found unity in the logo. Further, 11 designers (69%) perceived symmetry as an aesthetic impression in the interior space while only 5 designers (31%) believed so regarding the logo. Therefore, correspondence did not exist between them.

There was a considerable difference among responses related to simplicity in both elements. From the total, 15 designers (94%) perceived simplicity as an impression in the logo, compared to 3 designers (19%) for the interior space.

This indicates a low level of correspondence between the aesthetic impressions of the logo and the interior space. While 88% of interviewees found the logo easily perceivable, 56% found the interior space easily perceivable. From the total, seven interviewees (44%) perceived attractiveness as a stimulus in the interior space, while only 2 designers (13%) believed the same for the logo, which means that while attractiveness was used as a stimulus in the interior space, the same was not true for the logo.

#### **4.3.2 Case 2: B-2 ALJ**

From the total, 13 interviewees (81%) found unity in the logo design, compared to 9 (56%) who found unity in the interior space. This indicates visual correspondence between the elements. Further, 7 interviewees (44%) believed there was symmetry in both elements. Like for AI, while the same impression was detected, visual correspondence did not exist between the elements. From the total, 11 interviewees (69%) perceived simplicity in the interior space, while 4 (25%) perceived the same in the logo. Therefore, correspondence did not exist between the elements. Finally, 14 interviewees (88%) easily perceived the logo, while 10 designers (63%) easily perceived the interior space. This indicates a slight difference in the level of correspondence in terms of the AI between the two elements. Both the logo (19%) and the interior space (0%) scored quite low for attractiveness.

#### **4.3.3 Case 3: B-3 ANB**

From the total, 13 interviewees (81%) perceived unity in the interior space, while 10 designers (63%) perceived the same in the logo. This indicates a relative level of correspondence between the two elements. Further, 13 interviewees (81%) found symmetry in the interior space and 7 designers (44%) who found the same

for the logo. Similarly, 14 interviewees (88%) perceived simplicity in the interior space, while 12 interviewees (75%) perceived the same for the logo. This suggests a high level of correspondence between the elements. The percentage of interviewees who found the logo (75%) and the interior space (81%) easily perceivable was very similar. This indicates a high level of correspondence between both elements. Lastly, 10 interviewees (63%) found the interior attractive, while only four (25%) found the logo attractive. This suggests a low level of correspondence between the two elements.

**4.3.4 Case 4: B-4 SABB**

There was a convergence in the interviewees’ opinions regarding unity in both elements (11 responses (67%) for the logo and 12 responses (75%) for the interior space). This indicates a high level of correspondence between the two elements.

**Table 6** Comparison of results.

Case / Logo	Option	Responses /16	Percentage
Case 1: B-1NCB	Option 1	2	12.5 %
	Option 2	1	6%
	Option 3*	9	56%
	Option 4	0	0%
	Option 5	4	25%
Case 2: B-2 ALJ	Option 1	10	63%
	Option 2	0	0%
	Option 3	1	6%
	Option 4*	4	25%
	Option 5	1	6%
Case 3: B-3 ANB	Option 1*	8	50%
	Option 2	3	19%
	Option 3	0	0%
	Option 4	5	31%
	Option 5	0	0%
Case 4: B-4 SABB	Option 1	0	0%
	Option 2*	13	81%
	Option 3	0	0%
	Option 4	0	0%
	Option 5	3	19%

\* Link to the true correspondence in reality

Similarly, the percentages of interviewees who perceived symmetry in both elements were 88% (14 responses) for the logo and 81% (13 responses) for the interior space. In addition, the majority of the interviewees perceived simplicity in both elements. This suggests a high level of correspondence.

Further, 14 interviewees (88%) easily perceived the logo and 12 interviewees (75%) easily perceived the interior space. Therefore, there was a high level of correspondence between them. From the total, 9 interviewees found the logo attractive, while only 8 found the interior space attractive. This again demonstrated a high level of correspondence. Correspondence existed and was pronounced.

Regarding the level of visual correspondence for each visual brand, correspondence was not easy to achieve in all the cases (Table 6). The designers were unable to correctly match the logo with its corresponding interior space in all cases. The percentage varied from high identification (81%), such as case B-4 SABB, to weak identification (25%), such as case B-2 ALJ. Color played a crucial role in case B-4. It made visual correspondence easy to perceive. Results for the level of visual correspondence for each case are discussed below (see Appendix 4 as well).

#### **4.3.5 Case 1: B-1NCB**

From the total, 56% correctly matched the logo with its corresponding interior space, based on the design characteristics and theory. These designers perceived the existence of visual correspondence. However, 45% did not find this correspondence, which is considered significant.

#### **4.3.6 Case 2: B-2 ALJ**

From the total, 63% correctly matched the logo with option 1, while 25% matched the logo with its actual interior space represented by option 4. Further, 6% matched the logo with option 3 and 6% chose 'none of the above'. This indicates confusion among interviewees' perceptions due to similarities in color between options 1 and 4.

#### **4.3.7 Case 3: B-3 ANB**

From the total, 50% interviewees matched the logo with option 1, which represents the correct interior space, 31% chose option 4, and 19% chose option 2. This indicates that color played an important role in the interviewees' perceptions because options 1 and 4 had similar colors. It is also important to note that option 2 was selected by 19% because it included the logo's accent color.

#### 4.3.8 Case 4: B-4 SABB

From the total, 81% of the interviewees chose option 2, while 19% chose option 5, which was ‘none of the above’. This indicates that color was an influential factor for the interviewees’ perception, since option 2 represented the same colors as the logo. However, 19% chose ‘none of the above’, which indicates that the interior’s lines also plays a huge role in correspondence between a logo and interior space.

#### 4.4 General Discussion

A comparison of the results (Table 7) reveals a logical alignment in the use of artistic characteristics in designing a logo and an interior space. When the principles were not strongly pronounced for correspondence, the correspondence based on AI varied from low to high. It could only be identified by half of the participants in cases B-1 and B-3, and fewer in case B-2 ALJ. Other factors such as lines, shapes, color, and proportion were also important design elements. High correspondence based on AP generated high correspondence based on AI. This facilitated easy identification of visual correspondence.

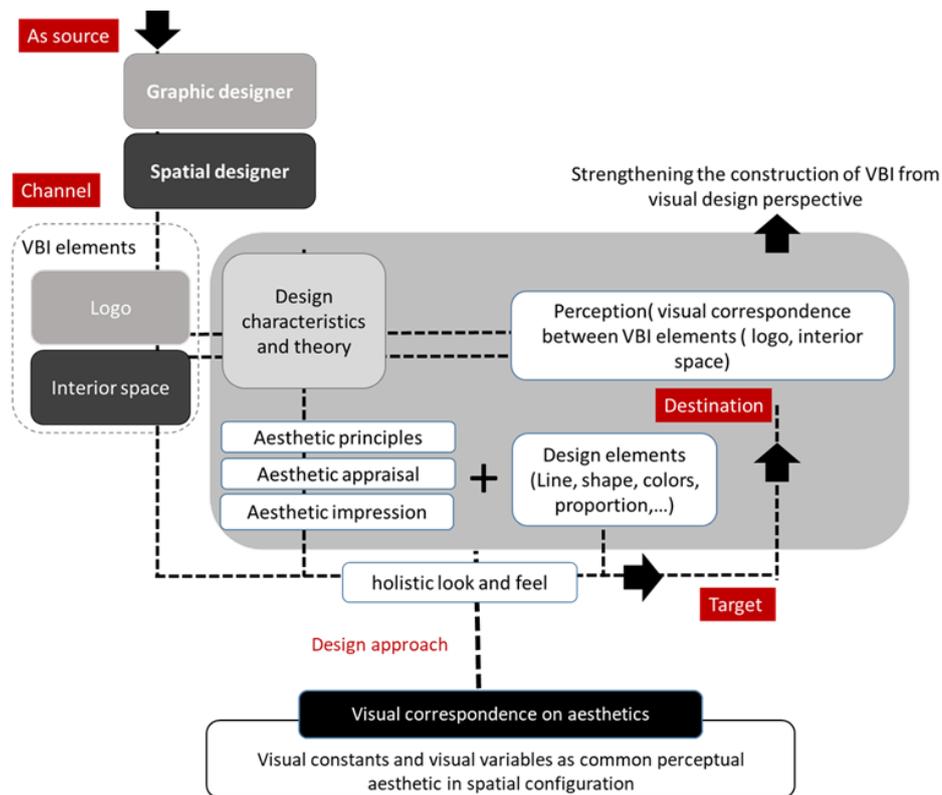
**Table 7** Comparison between the visual correspondence of logo and interior aesthetics and the percentage of correct correspondence.

Cases	Aesthetic principles	Aesthetic appraisal	Aesthetic impression	% of correct correspondence of logo and space
<b>B-1</b>	Average	Low	Low	56%
<b>NCB</b>	correspondence	correspondence	correspondence	
<b>B-2</b>	Average	Low	Low	25%
<b>ALJ</b>	correspondence	correspondence	correspondence	
<b>B-3</b>	Average	Low	High	50%
<b>ANB</b>	correspondence	correspondence	correspondence	
<b>B-4</b>	High	Low	High	81%
<b>SABB</b>	correspondence	correspondence	correspondence	

Similarly, visual consistency between design elements and principles facilitates the generation of common perceptual characteristics that ensure visual correspondence. Designing the elements of visual brand identity should be based on visual constants and visual variables as common perceptual aesthetics in spatial configurations (i.e., the logo as a 2D figure, and the interior space as a 3D figure). This confirms that recognition increases when design characteristics identified by the Gestalt theory are used to recognize the whole, followed by its individual elements, as indicated in Figure 1.

Based on the design theories (aesthetics and perception), designers’ opinions and visions about the correspondence between the characteristics of the visual design

of the VBI of commercial retail banking companies revealed that the connection between features of visual design is essential. The designers' opinions about the most essential guidelines for developing a brand's VBI with visual correspondence can be subcategorized into three clusters: strategies, design approach, and design elements and principles.



**Figure 1** Holistic approach to consider design characteristics and theory in strengthening the construction of a VBI from a visual design perspective.

#### 4.4.1 Strategies

1. Communication between a design team, such as graphic, interior, project manager, and so on, should be fluent.
2. The creative director should always rely on the brand strategy before taking any design decision.
3. Decision makers should establish a brand design criterion before designing the interior space.

4. Branding includes environmental design, which usually involves clear guidelines on the extension of the brand image to its interior spaces in order to generate a unified emotional customer experience. Therefore, such guidelines should be carefully applied to the design approach, design elements, and design principles.

Any design project should always begin with the brand identity manual to ensure design consistency.

#### **4.4.2 Design Approach**

1. Designers should always consider the visual characteristics of the logo and its extension to the forms, masses, and volumes of the interior spaces.
2. Correspondence between the elements should be achieved through color/language/form/concept.
3. The same value approach should be adopted for simplicity/complexity/novelty of visual correspondence between the two elements.
4. In general, simplicity is key when it comes to 2D or 3D design.
5. Concepts should be interpreted in 2D and 3D configurations with visual alignment based on the design characteristics of logos and spaces (design elements and aesthetics principles) to assure aesthetic impression and appraisal.

#### **4.4.3 Design Elements and Principles**

1. All elements should be extracted carefully from the brand and logo, and must be applied in the interior space to ensure correspondence.
2. The same kind of lines and shapes/principles must be adopted.
3. Colors/shapes/spaces should be appropriately adapted into coherent backgrounds/figures.
4. Colors and familiar shapes inspired from the logo, such as patterns, should be extended into the interior space to support consistency and the overall feel of the space.

Therefore, colors are a very important component of any brand's logo and interior design. However, it should not be considered alone.

## **5 Conclusion**

The goal of this study was to appreciate the correspondence between visual brand identity elements in the VBI brands of commercial retail banking companies and

the theoretical aesthetic principles of visual branding. The study found that aesthetic principles, aesthetic appraisal, and aesthetic impression play a crucial role in defining visual correspondence between the elements of visual brand identity.

When VBI elements lack harmony, their visual connection may be weak or non-existent, along with no AA and AI. When VBI, which is the holistic look and feel of a brand, is not manifested consistently through all its unique visual elements, the logo and interior space design may not play their role in enhancing the visual identity of the brand.

These findings have significant implications for understanding the role of design elements like lines, colors, shapes, and surfaces; design principles; and design theory in visual product development. Their organized use reinforces the VBI. Color impacts strongly on the brand, but it is not sufficient on its own. Simplicity, symmetry, and unity in design, and use of other attendant elements, are critical considerations for top VBIs. The aesthetic appeal of the elements in the brand is appreciated not in isolation but in the broader unity of the entire creation.

This study enhances our understanding of the interplay between concepts and their translation into tangible reality, such as visual brand images. Generalizability of these results is, however, subject to certain limitations. For instance, the composition of interior design may differ from one branch of a bank to the other, depending on the area, number of employees, location of the branch, and its capacity. However, the overall holistic look and feel should be the same. Thus, it is important that some elements should remain constant in the visual design to reinforce the VBI elements. Further research is required to build visual correspondence through design elements and principles from a design perspective.

The findings of this study have a number of practical implications for professionals involved in branding (e.g. graphic designer, interior, project manager, and marketing professionals). The results can be used not only to understand the foundations of building a visual brand (theory) but also how the visual branding of a company can be enhanced. Therefore, this study is significant for the fields of design and business.

### **Acknowledgement**

The researchers thank everyone who contributed to the development of this work and facilitated the collection of data.

## References

- [1] Keller, K.L., *Strategic Brand Management: Measuring and Managing Brand Equity*, Ed. 2, Prentice Hall, 2003.
- [2] Pittard, N., Ewing, M. & Jevons, C., *Aesthetic Theory and Logo Design: Examining Consumer Response to Proportion across Cultures*, *International Marketing Review*, **24**(4), pp. 457-473, 2007.
- [3] Müller, B., Kocher, B. & Crettaz, A., *The Effects of Visual Rejuvenation through Brand Logo*, *Journal of Business Research*, **66**(1), pp. 82-88, 2013.
- [4] Goldman, A., *Beardsley's Legacy: The Theory of Aesthetic Value*, *The Journal of aesthetics and art criticism*, **63**(2), pp. 185-189, 2005.
- [5] Bargenda, A., *Space Design as an Expressive Device in Ambient Marketing: Case Studies of Deutsche Bank and Banca Monte dei Paschi di Siena*, *Journal of Marketing Communications*, **21**(1), pp. 78-90, 2015.
- [6] Venkatesh, A. & Meamber, L.A., *The Aesthetic of Consumption and the Consumer as an Aesthetic Subject*, *Consumption Markets & Culture*, **11**(1), pp. 45-70, 2008.
- [7] Krishna, A. & Schwarz, N., *Sensory Marketing, Embodiment, and Grounded Cognition: Implications for Consumer Behavior*, *Journal of Consumer Psychology*, **24**(2), pp. 159-168, 2014.
- [8] Bajaj, A. & Bond, S.D., *Beyond Beauty: Design Symmetry and Brand Personality*, *Journal of Consumer Psychology*, **28**(1), pp. 77-98, 2018.
- [9] Phillips, B.J., McQuarrie, E.F. & Griffin, W.G., *The Face of the Brand: How Art Directors Understand Visual Brand Identity*, *Journal of Advertising*, **43**(4), pp. 318-332, 2014.
- [10] Phillips, B.J., McQuarrie, E.F. & Griffin, W.G., *How Visual Brand Identity Shapes Consumer Response*, *Psychology & Marketing*, **31**(3), pp. 225-236, 2014.
- [11] Henderson, P.W., Cote, J.A., Leong, S.M. & Schmitt, B., *Building Strong Brands in Asia: Selecting the Visual Components of Image to Maximize Brand Strength*, *International Journal of Research in Marketing*, **20**(4), pp. 297-313, 2003.
- [12] Müller, B., Kocher, B. & Crettaz, A., *The effects of visual rejuvenation through brand logos*, *Journal of Business Research*, **66**(1), pp. 82-88, 2013.
- [13] Lewalski, Z.M., *Product Aesthetics: An Interpretation for Designers*, Design & Development Engineering Press, 1988.
- [14] Crilly, N., Moultrie, J. & Clarkson, P.J., *Seeing Things: Consumer Response to the Visual Domain in Product Design*, *Design Studies*, **25**(6), pp. 547-577, 2004.
- [15] Csikszentmihalyi, M. & Robinson, R.E., *The Art of Seeing: An Interpretation of the Aesthetic Encounter*, Getty Center for Education in the Arts, 1990.

- [16] Kumar, M. & Garg, N., *Aesthetic Principles and Cognitive Emotion Appraisals: How Much of the Beauty Lies in the Eye of the Beholder?* Journal of Consumer Psychology, **20**(4), pp. 485-494, 2010.
- [17] Schmitt, B. & Simonson, A., *Marketing Aesthetic: The Strategic Management of Brands, Identity and Image*, The Free Press, 1997.
- [18] Veryzer, R.W., *A Nonconscious Processing Explanation of Consumer Response to Product Design*, Psychology & Marketing, **16**(6), pp. 497-522, 1999.
- [19] Valenza, E., Simion, F., Cassia, V.M. & Umiltà, C., *Face Preference at Birth*, Journal of Experimental Psychology: Human Perception and Performance, **22**(4), pp. 892, 1996.
- [20] Coates, D., *Watches Tell More than Time*, McGraw-Hill, 2003.
- [21] Berlyne, D.E., *Aesthetics and Psychobiology*, Meredith Corporation, 1971.
- [22] Moshagen, M. & Thielsch, M.T., *Facets of Visual Aesthetics*, International Journal of Human-Computer Studies, **68**(10), pp. 689-709, 2010.
- [23] Koffka, K., *Perception: An introduction to the Gestalt-Theorie*, Psychological Bulletin, **19**(10), pp. 531, 1922.
- [24] Arnheim, R., *Entropy and Art: An Essay on Disorder and Order*, University of California Press, 1974.
- [25] Garner, W.R. and Clement, D.E., *Goodness of Pattern and Pattern Uncertainty*, Journal of Verbal Learning and Verbal Behavior, **2**(5-6), pp. 446-452, 1963.
- [26] Köhler, W., *An Old Pseudoproblem*, Naturwissenschaften, **17**, pp. 395-401, 1929.
- [27] Wertheimer, M., *Untersuchungen zur Lehre von der Gestalt (Studies on the Science of Gestalt)*, Psychologische Forschung, **4**, pp. 301-350, 1923.
- [28] Bornstein, R. F. & D'agostino, P.R., *Stimulus Recognition and the Mere Exposure Effect*, Journal of Personality and Social Psychology, **63**(4), pp. 545, 1992.
- [29] Schroeder, J., *Visual Consumption*, Routledge, 2002.
- [30] Kotler, P., *Atmospherics as a Marketing Tool*, Journal of Retailing, **49**(4), pp. 48-64, 1973.
- [31] Orth, U.R., Heinrich, F. & Malkewitz, K., *Servicescape interior design and consumers' personality impressions*, Journal of Services Marketing, **26**(3), pp. 194-203, 2012.
- [32] Morin, S., Dubé, L. & Chebat, J.C., *The Role of Pleasant Music in Servicescapes: A Test of the Dual Model of Environmental Perception*, Journal of Retailing, **83**(1), pp. 115-130, 2007.
- [33] Loken, B. & Ward, J., *Alternative Approaches to Understanding the Determinants of Typicality*, Journal of Consumer Research, **17**(2), pp. 111-126, 1990.
- [34] Pepper, S.C., *Principles of Art Appreciation*, Harcourt, Brace and World, 1994.

- [35] Geistfeld, L.V., Sproles, G.B. & Badenhop, S.B., *The Concept and Measurement of a Hierarchy of Product Characteristics*, NA - Advances in Consumer Research Volume 04, William D. Perreault, Jr., ed., ACR North American Advances, 1977.
- [36] Underhill, P., *Why We Buy – The Science of Shopping*, Simon & Schuster, 1999.
- [37] Wheeler, A., *Designing Brand Identity: An Essential Guide for the Whole Branding Team*, John Wiley & Sons, 2017.