<u>*Research Article*</u>

Does Congruence Between Brand Name and Brand Logo Influence Brand Affection? An Experimental Study

İlkin Yaran Ögel[1]

Abstract

Undoubtedly, design and selection of the proper brand elements have a crucial role in the long-term success of a brand. Therefore, to establish strong and favorable brand meaning prior to market entry and enhance the acceptance of the new brand, an ultimate attention should be devoted to design and select brand elements that together convey consistent meaning. Herein, this study aims to examine the effect of interaction between sounds in brand names and shapes of brand logos on brand affection drawing upon sound and shape symbolism. To test the interaction effect between sound and shape, one experimental study was conducted. The findings of the study revealed that sounds in the brand names and shapes of the brand logos alone did not influence brand affection significantly. However, the results purported that the congruent combination of sounds in a brand name and shape of a brand logo significantly influenced brand affection compared to incongruent combinations. More specifically, the results indicated that when brand names are including high (low) frequency sounds and having angular (rounded) brand logo, brand affection towards the brand increased. These results are expected to both contribute to relevant literature and ensure applicable insights to the marketing practitioners who are responsible for designing and selecting brand elements.

Keywords: Brand Logo, Brand Name, Shape Symbolism, Sound Symbolism

JEL Codes: M19, M30, M31

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Araştırma Makalesi

Marka İsmi ve Marka Logosu Arasındaki Uyum Marka Beğenisini Etkiler mi? Deneysel Bir Çalışma

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Öz

Marka unsurlarının tasarlanmasının ve seçiminin bir markanın uzun dönemli başarısı üzerinde şüphesiz ki çok önemli bir rolü vardır. Bu nedenle, pazara girişten önce güçlü ve olumlu bir marka anlamı oluşturmak ve yeni markanın kabulünü artırmak için birlikte tutarlı anlam taşıyan marka unsurlarını tasarlamaya ve seçmeye son derece dikkat edilmelidir. Bu bağlamda, bu çalışma, ses ve şekil sembolizminden yola çıkarak, marka isimlerindeki sesler ve marka logolarındaki şekiller arasındaki etkileşimin, marka beğenisi üzerindeki etkisini incelenmeyi amaçlamaktadır. Ses ve şekil arasındaki etkileşim etkisini test etmek için de bir deneysel çalışma yapılmıştır. Çalışmanın bulguları, marka isimlerindeki seslerin ve marka logolarındaki şekillerin tek başına marka beğenisini önemli ölçüde etkilemediğini ortaya koymuştur. Bununla birlikte, çalışmanın bulguları, marka ismindeki sesler ve marka logosundaki şekiller arasında uyumlu bir kombinasyon olduğunda, uyumsuz kombinasyonlara kıyasla bu uyumun marka beğenisini önemli ölçüde etkilediğini göstermiştir. Daha spesifik olarak, çalışmanın sonuçları, marka isimleri yüksek (düşük) frekanslı sesler içerdiğinde ve köşeli (yuvarlak) bir marka logosuna sahip olduğunda, markaya yönelik marka beğenisinin arttığını göstermiştir. Bu sonuçların hem ilgili literatüre katkıda bulunması hem de marka unsurlarını tasarlamak ve seçmekten sorumlu pazarlama uygulayıcılarına faydalı bilgiler sağlaması beklenmektedir.

Anahtar Kelimeler: Marka Logosu, Marka İsmi, Şekil Sembolizmi, Ses Sembolizmi

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1. Introduction[2]

Since they are always at the center of every marketing activity, brand elements are considered as the main building blocks of a brand (Klink & Athaide, 2012). Thence, strategic brand management process principally starts with designing brand elements for a new product. Herein, to communicate the essence of brand's identity, there are two basic brand elements including brand name (Keller et al., 1998) and brand logo (Henderson & Cote, 1998). As per these brand elements, brand names are the vocalized side of the brands (Kotler, 1991). Whereas, brand logos are principally the visual parts of the brands (Henderson & Cote, 1998). Most of the time, a considerable part of the success of a brand depends on its brand name, and so some brands are more competitive because of having successful brand names such as Volvo and IKEA (Pathak et al., 2020). Additionally, the shape and color of logo communicates meaning about the brand and influences the perception of consumers towards the brands (César Machado et al., 2021).

The integrity between brand name and brand logo enhances the effectiveness of marketing activities and consumer experiences with the brands (Derval, 2021). So, the more consistent and stronger the relationship between brand name and brand logo, the more the brand meaning is reinforced in the minds of consumers. Accordingly, when brand names and brand logo consistently communicate similar messages, consumers could perceive brand meaning in a more synergistic way (Park & Zaltman, 1987). So, instead of establishing brand meaning created by one brand element alone, it is crucial to design all brand elements consistent with each other to establish strong and favorable brand meaning. Nevertheless, designing and selecting successful brand elements that create positive and unique brand meaning is not an easy task for contemporary marketing practitioners. For that reason, while they are designing brand name and brand logo, they have to find novel ways to easily differentiate their brands among others in today's overcrowded marketplace.

Recent years, as a novel method, sound symbolism and shape symbolism have been increasingly used to design brand name and brand logo, respectively (Baxter et al., 2015). The relevant literature also presents that there is a consistent interplay between sound symbolism and shape symbolism (e.g., Akita, 2021; Knoeferle et al., 2017). Herein, the results of many marketing research also indicate that specific speech sounds are more associated with specific shapes (e.g., Klink, 2003), while specific shapes are also associated with specific speech sounds (e.g., Abelin, 2015). Besides, the findings in relevant literature demonstrate that when there is a congruence between sounds of brand names and shapes of brand logos, the desired brand meaning would be communicated much better (e.g., Klink, 2003).

Drawing upon the consistent relationship between sound and shape, the interplay between sound symbolism and shape symbolism has been already examined within the context of brand name and package shape design (e.g., Fenko et al., 2016; Godinho & Garrido, 2017) and brand name and brand logo design (e.g., Baxter et al., 2015; Klink, 2003) in marketing discipline. However, most of these studies have tested the cross-modal correspondence between sound and shape in many major European languages such as English (e.g., Baxter et al., 2015; Klink, 2003; Lieven et al., 2015). To extend the effect of sound and shape symbolism beyond European languages contexts, it is crucial to test the cross-modal correspondence between sound and shape in different languages coming from different language families. Herein, though there is a tiny effort to test the cross-modal correspondence between sound and shape in Turkish

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[2] Permission was obtained from the Ethics Committee of Afyon Kocatepe University with the decision dated 26.10.2022.

within the context of brand name and package design (Yaran Ögel, 2022), there is still a little knowledge about the interaction between sound and shape symbolism in brand name and brand logo design in Turkish. So, to prove the universal existence of cross-modal correspondence between sound and shape, and to make sound and shape symbolism an effective tool for marketing practitioners in design of brand name and logo globally, this interaction should be tested in other languages coming from different language families like Turkish.

Additionally, it is also important to test the effects of congruence between sounds of brand names and shapes of brand brand logos on consumers responses. In relevant literature, the effects of sound symbolism used in brand name design and the effects of shape symbolism used in brand logo design have been examined within the context several consumer responses such as brand attitude and memory (Jun & Lee, 2022), attribute perception (Baxter et al., 2015), brand gender perceptions and consumer preferences (Lieven et al., 2015) and product evaluation and purchase intention (Yaran Ögel, 2022). However, there are also other consumer responses which should be addressed within the context of sound and shape symbolism in consumer behavior literature. Herein, brand affection, which refers to positive feelings a consumer has towards a brand (Thomson et al., 2005), seems one of the constructs which have not examined yet within sound and shape symbolism context in brand element design. Thus, though, brand affection can be readily regarded as an important factor which could determine the success of a brand, still little is known about how congruence between sounds in a brand name and shape of a brand logo influence feelings of consumers towards a brand.

Overall to address these gaps, this study aims to explore the role of cross-modal correspondence between sounds of brand names and shapes of brand logos in brand affection in Turkish. In doing so, it is expected to be the first study in Turkish which indicate the interaction between sound and shape symbolism within the context of brand elements design. This study is also important in terms of displaying the effect of interaction between shape and sound on brand affection as a previously untapped context within sound and shape symbolism literature. Thence, the findings of study are also expected to contribute to existing literature on sound and shape symbolism as well as providing a novel understanding to marketing practitioners in designing brand elements effectively.

The rest of the study is organized as follows. First, literature review about sound symbolism, shape symbolism and brand affection are briefly given. Second, drawing upon the relevant literature, the hypothesis of the study is established. Then, the experimental study including research issue, stimuli, research design, measure and procedure is precisely described. After that research findings are reported and discussed. Following, theoretical contribution of the findings and their practical implication in marketing discipline are presented. Finally, limitations of the study and suggestions for further research are indicated.

2. Literature Review

In this section, sound symbolism, shape symbolism and brand affection, which provide a context for the experimental research, are briefly introduced.

2.1. Sound Symbolism

By contrast with foundational principle of modern linguistics, sound symbolism presumes that there is a consistent (Sapir, 1929), direct (Hinton et al., 1994), non-arbitrary (Sapir, 1929) and systematic (Jepersen, 1922) relationship between sound and meaning. Particularly, when the words are unfamiliar or meaningless, the sounds creating the words can be used as tools by individuals to understand meaning about the words. Accordingly, since sounds stimulate the perception of individuals, sound symbolism can be delineated as a cross-

modal correspondence in which sounds lead to multi-modal correspondence to other sensory attributes (Fenko et al., 2016).

In sound symbolism theory, even the tiniest bits of sounds in a word are capable of communicating inherent meaning about the word (Lowrey et al., 2007). So, though this phenomenon is originated from linguistics, the expressiveness of the sounds has also recently explored within the context of marketing (e.g., Jun & Lee, 2022; Motoki et al., 2022). Notably, since brand names are frequently made up by combination of speech sounds, sound symbolism has been specifically examined within the context of creating distinctive and meaningful brand names that can communicate inherent meaning about product or brand characteristics (Baxter & Lowrey, 2011; Klink, 2000; Lowrey & Shrum, 2007).

Drawing upon the several marketing research on sound symbolism, it can be observed that brand names including specific speech sounds consistently convey specific meanings about appearance of the product like shape (e.g., Fenko et al., 2016; Velasco et al., 2014) and appearance of the brand in terms brand elements such as brand logo (e.g., Baxter et al., 2015; Klink, 2003; Klink & Athaide, 2014). Herein, the results of several marketing research display that majority of respondents associate vowels sounds (i.e., /i/, /e/) and fricatives (i.e., /v/, /s/) with angular shapes; whereas they match back vowels (i.e., /o/, "/u/) and plosives (i.e., /b/, /g/) with rounded shapes (e.g., Klink & Athaide, 2014). So, this systematic linkage between sound and shape makes sound symbolism as a novel tool used to create inherently meaningful brand names that convey messages about shape-related issues about a product and a brand.

2.2. Shape Symbolism

As well as sounds, shapes can communicate meaning, and they send messages to the target audience without using any words. This is widely-known as shape symbolism, whose root is traced back to the end of 1920s (Köhler, 1929; Sapir, 1929), though at that time it was only referred to sound symbolism instead of shape symbolism. The main idea behind shape symbolism is that individuals can relate specific attributes with specific shapes, which are usually varying in degree of their angularity or roundedness and/or in their size (Spence and Ngo, 2012). Accordingly, as well as sound symbolism, shape symbolism can be considered as a specific form of cross-modal correspondence (Spence, 2011). Thence, the phenomenon of shape symbolism can be delineated as a cross-modal mapping that can be observed between shapes and other sensory attributes such as sound (Spence, 2012).

The phenomenon of shape symbolism has come from the findings of the studies of German psychologist Köhler (1929;1947). Based on his findings, it was reported that majority of the respondents match the meaningless name, "baluma", (Köhler, 1929) or "maluma" (Köhler, 1947) with a rounded and curvy shape due to the open articulation of these words occurred in their pronunciation. Whereas, most of the respondents match meaningless word, "takete", with a spiky and angular shape (Köhler, 1929). Consistent with the studies of Köhler (1929; 1947), the neuroscientists Ramachandran and Hubbard (2001) presented the "bouba-kiki effect", drawing upon articulatory hypothesis, which assumes that a shape imitates the articulatory movements of speech organs during the pronunciation of the words. Herein, since one's tongue is sharply inflected when the word "kiki" is pronounced, this word is mostly matched with sharp and angular figures. On the other hand, when one's lips and oral cavity are rounded during articulation of the word "bouba", this word is mostly matched with rounded figures. Overall, it was concluded that the words including high frequency sounds (i.e., fricatives and vowel sounds) are more associated with angular shapes, while words including low frequency sounds (i.e., plosives and back vowels) are more associated with rounded shapes.

These studies have paved the way for further research on shape symbolism by examining the interplay between sound and shape within the context of marketing (e.g., Athaide & Klink, 2012;2014; Klink, 2000; 2003). Undoubtedly, shape symbolism has particularly become a prominent on marketing studies about labelling (e.g., Klink, 2003) and packaging (e.g., Fenko et al., 2016). Thence, the findings of these studies give a powerful set of tools to marketing practitioners to design packaging of the products and their brand marks.

2.3. Brand Affection

Affection refers to warm feelings a consumer has towards a brand (Thomson et al., 2005). Accordingly, affection leads to positive evaluations regarding a brand, and so it makes consumers develop positive emotional responses towards the brand from using the brand itself (Chaudhuri & Holbrook, 2001). Affection for a brand also emphasizes a long-term relationship with the brand and presents the proximity between the brand and a consumer (Albert et al., 2009). More specifically, the more the degree of affection towards a brand, the more the brand is perceived as unique by the consumer who uses it. In this context, brand affection can be considered as one of the outstanding consumers' behaviors which have a substantial relation with brand loyalty (Hemsley-Brown & Alnawas, 2016). So, affection has also a crucial role in the success of a brand in an overcrowded marketplace.

Emotional relationship between a customer and a brand is also crucial in establishing strong brand in the mind of the customer (Hulten, 2011). Undoubtedly, to build a strong brand in the minds of the consumers, the design of a proper brand meaning, which defines a brand itself, its function, its values and its personality (Keller, 2013), is a must, as well. Thence, to enhance brand awareness and create a strong, unique and favorable impressions towards the brand, brand meaning should be determined and operationalized prior to market entry for every new brand (Aaker & Keller, 1990).

In a nutshell, brand meaning communicates the essence of a brand's identity (Keller, 2013), and it can be reinforced depending upon interaction among a wide range of marketing activities. Herein, since they are at the heart of every marketing activity, brand elements such as brand name and brand logo have a special role in communicating brand meaning (Klink, 2003). For instance, if a brand has a strong brand name, it is more likely to bring satisfaction and loyalty (Silalahi et al., 2016). Accordingly, in terms of leading to loyalty, brand affection can be related to brand meaning with respect to brand name and brand logo. Besides, consumers may develop strong affective attachments and relationships with brands through several instruments such as the design of the product (Bhattacharya & Sen, 2003). Herein, since the design of the brand elements for a new product can also be included in design of the products, brand affection could also be examined within the context of design of brand elements. Therefore, it can be used as a dependent variable in this study.

3. Hypothesis Development

If stimulation of one sensory modality affects the perception regarding another modality regardless of any direct stimulation to the second modality, cross-modal correspondence is observed (Harrison & Baron-Cohen, 1997). For instance, sound as a sensory modality can trigger a perception about vision such as shape (Klink, 2003) or vision can trigger a perception about a sound (Abelin, 2015). This is a cross-modal correspondence between sound and shape (Ramachandran & Hubbard, 2001).

Recent years, marketing researchers have also accepted the effects of cross-modal correspondences, and they have started to examine this effect within the context of interplay between brand name and shape-related decisions regarding brands such as designing brand logo

(e.g., Klink, 2003; Klink & Athaide, 2014). The results of these research consistently indicate that brand names including high frequency sounds (i.e., front vowels and fricatives) are more associated with angular brand logos than brand names including low frequency sounds (i.e., back vowels and plosives) in English (Klink, 2003) and Hindi (Klink & Athaide, 2014). Moreover, the results emphasized that shape of a brand logo can strengthen sound symbolic meaning of a brand name, and so the congruence in meaning conveyed through brand name and brand logo enhances the brand liking (Klink, 2003).

In extant literature, unfortunately, there is no any research on the interplay between sound and shape symbolism in Turkish within the context of brand element design. However, it is proved that brand names including vowel sounds are more matched with angular shapes than brand names including back vowels within the context of packaging design (Yaran Ögel, 2022). Moreover, it is found that the congruence between sound and shape (i.e., brand names including high frequency sounds and brands with angular package) also significantly affect the consumer responses such as product evaluation and purchase intention compared to incongruent combinations (Yaran Ögel, 2022). Though there is no any research which directly concentrates on the role of the interaction between sounds of a brand name and shape of a brand logo in affection towards a brand, drawing upon the results of empirical research in relevant literature, this study hypothesizes that;

H₁: A brand with angular (rounded) logo and brand names including high (low) frequency sounds leads to more brand affection than a brand with angular (rounded) logo and brand names including low (high) frequency sounds do.

4. Experimental Study

Herein, the experimental study in terms of research issue, stimuli, design, measure, procedure and results is briefly introduced.

4.1. Research Issue

This experimental study is primarily designed to explore how interaction between sound symbolism and shape symbolism affects consumers in branding context. Thence, by specifically addressing H₁, this study attempts to analyze how the congruence between sounds in brand names and shapes of brand logos influences brand affection of consumers.

4.2. Stimuli

In order the test H1, it is initially required to invent two fictitious brand names which are used as stimuli. Herein, one brand name pair which includes a brand name including only high frequency sounds and a brand name including only low frequency sounds is created. In phonetics, high frequency sounds include fricatives and front vowels; whereas low frequency sounds cover plosives and back vowels (Hinton et al., 1994). As per high frequency sounds, fricatives are produced with partial blocking of the airflow that leads to audible friction, while plosives, as low frequency sounds, are produced by fully blocking the airflow which leads to a sudden release of sounds from the mouth (Özsoy, 2004). In Turkish, fricatives include "c", "ç", "f", "h", "j", "s", "ş", "v", "y", and "z" and plosives include "b", "d", "g", "p", "t", and "k" (Ergenç, 2002). The other high frequency sounds are vowel sounds, which are produced, when the tongue is more towards the front of the mouth during the pronunciation of a sound (Özsoy, 2004). On the other hand, the other low frequency sounds, back vowels, are produced when the tongue is more towards the back of the mouth during the pronunciation of a sound (Ergenç, 2002). In this context, in Turkish, the sounds "ı", "o", and "u" are included in back vowels, whereas "i", "e", "ö", and "ü" are included in front vowels (Göksel & Kerslake, 2005).

In extant literature, to test the sound symbolism effect with respect to fricatives and plosives distinction, fricatives /v/, /f/ and /s/ are frequently contrasted with plosives /g/, /b/ and /t/ (e.g., Klink, 2000). Moreover, to test the effect of sound symbolism with respect to distinction between front and back vowel, the front vowels /e/ and /i/ are mostly contrasted with back vowels /o/ and /u/ (Klink, 2000; 2003; Lowrey & Shrum; 2007; Yorkston and Menon, 2004). Accordingly, in this study, the brand name including high frequency sounds was created through the combination of fricatives /s/, /v/ and /f/ with front vowels /e/ and /i/, while the brand name including low frequency sounds was created through the combination of plosives /b/, /g/ and /t/ with back vowels /o/ and /u/. Overall, two non-sense brand names, "Bugogot" and "Sivevef" were used as stimuli to reflect brand names including low frequency sounds and high frequency sounds, respectively.

All non-sense brand names were created in three-syllables and in a similar format with respect to alliteration. Before using the brand name pair, it was pretested with 30 participants to check whether the brand names in a pair might be more likely to remind them any existing words or brand names Then, for shape symbolism, angular and rounded shapes were selected to be used in logo design. To check the brand name and brand logo effect on brand affection, all other details were kept identical. So, all stimuli were prepared using "Times New Roman" as a font type and "18" as a font size. Additionally, all stimuli were created in bold font and grey was used as a background color because of its neutrality. Finally, fictitious words and selected shapes were combined to create the stimuli of the experimental study. Thence, four experimental conditions were prepared within the context of two fictitious brand names and two brand logo shapes. These stimuli in each experimental condition are given in Figure 1.

Figure 1

Stimuli of the Study
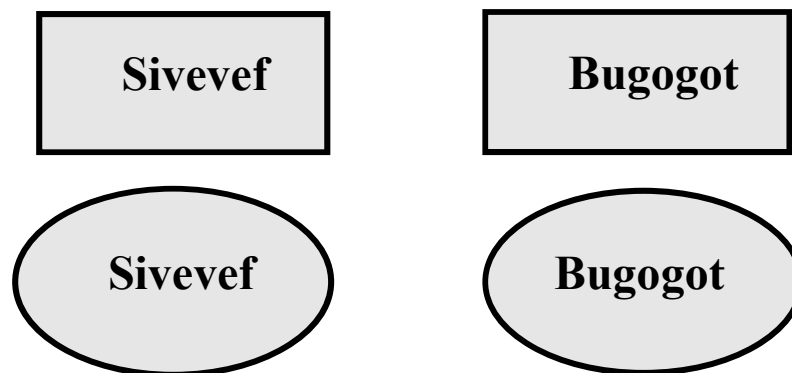
Note.Created by the author.

4.3. Design

This study adopts two-way ANOVA for testing H1 because there are two factors: sound (brand names including front vowels vs. brand names including back vowels) and shape (angular logo vs. rounded logo).

4.4. Measure

In this experimental study, dependent variable is determined as brand affection which can be measured with multi-item scales taken from existing literature and adapted for this study.

In this regard, brand affection is measured with four items used by Hemsley-Brown & Alnawas (2016). A five-point Likert-type scale, which is anchored from "totally disagree (1)" to "totally agree (5)", is adopted to measure these three items regarding brand affection. The items and Cronbach's α as a reliability coefficient of the construct are reported in Table 1. The value for Cronbach's α, which is higher than 0.70, shows that the construct has good reliability (Nunnally, 1978).

Table 1
Brand Affection Items and Its Reliability

Construct	Items	Cronbach's α
Brand affection	The brand name and brand logo are affectionate.	0.971
	The brand name and brand logo are lovely.	
	The brand name and brand logo are peaceful.	
	The brand name and brand logo are friendly.	

Note. Calculated by the author.

4.5. Procedure

To decrease the bilingual effect, the freshmen and sophomores from Afyon Kocatepe University were purposively selected as the participants of the experimental research because they had lower foreign language skills compared to juniors and seniors. Additionally, participants were selected among the freshmen and sophomores who spoke Turkish natively, could not speak other language fluently, and have never visited abroad before to minimize any bilingual effect on their perception, as well. In a nutshell, participants were reached by using purposive sampling method. Overall, 109 students were participated in the experimental study (57 female and 52 male, 18-22 years old, M: 19.67, SD: 1.52). Details about the participants per experimental condition were reported in Table 2.

The data were collected from 20.10.2022 to 10.11.2022 with structured questionnaire. Since a survey method was utilized in this study as a data collection method, the permission has been obtained from Ethics Committee of the Afyon Kocatepe University with a decision on the date of 26.10.2022 and 136502 document number. Herein, it is important to remark that all participants stated their consent to participate in this experimental study. Finally, since visual stimuli were prepared for this study, all participants stated that they had normal sense of vision.

In the experimental study, a 2 pages survey booklet, in which the first page was separated for informing the participants that they were going to follow during the data collection procedure, was given to each participant. However, they were not really informed about the real purposes of the study. Stimulus which presented the different combination of brand name and brand logo was visually presented to the participants in the second page of the booklet. Then they were asked to answer items regarding brand affection on the basis of five-point Likert type scale, after being exposed to given stimulus. One of the 4 stimuli was randomly assigned to each participant. After responding to every item in brand affection scale, participants were requested to answer demographic data questions. Then they were debriefed. Each section lasted approximately for 10 minutes.

Table 2

Demographics of Participants Per Stimuli

Experimental Condition	Gender (N)		Mean age (years old)	Class (N)		Total (N)
	Female	Male		Freshmen	Sophomore	
Brand Name "Sivevef" with "angular" logo	13	14	19.12	18	9	27
Brand Name "Sivevef" with "rounded" logo	15	13	19.72	16	12	28
Brand Name "Bugogot" with "angular" logo	15	12	20.02	11	16	27
Brand Name "Bugogot" with "rounded" logo	14	13	19.64	15	12	27

Note. Calculated by the author.

4.6. Results

In order to test H_1, two-way ANOVA in SPSS was adopted (See Table 4). Referring to the descriptive statistics given in Table 3, the brand name including high frequency sounds, Sivevef, led to higher brand affection with the angular logo (M= 3.574, SD=0.768) compared to brand name Sivevef with rounded logo (M= 2.893, SD=0.750) (p < 0.05). Consistently, the brand name including low frequency sounds, Bugogot, led to higher brand affection with the rounded logo (M= 3.481, SD=0.686) compared to brand name Bugogot with angular logo (M= 2.472, SD=0.936) (p < 0.05). Overall, these results confirmed that when brand names including high frequency sounds such as front vowels (i.e., /i/, /e/) and fricatives (i.e., /s/, /v/, /y/) and angular brand logo come together, this congruent combination more enhanced the brand affection compared to incongruent combination. Consistently, when brand names including low frequency sounds such as back vowels (i.e., /o/, /u/) and plosives (i.e., /b/, /g/, /t/) and rounded brand logo come together, this congruent combination more enhanced the brand affection compared to incongruent combination.

Table 3

Descriptive Statistics

Dependent variable: Brand Affection						
					95 % Confidence Interval	
Sound	**Shape**	**Mean**	**Std. Deviation**	**Std. Error**	**Lower Bound**	**Upper Bound**
Brand name including high frequency sounds (Sivevef)	angular logo	**3.574**	**0.768**	**0.152**	**3.273**	**3.876**
	rounded logo	2.893	0.750	0.149	2.597	3.189
Brand name including low frequency sounds (Bugogot)	angular logo	2.472	0.936	0.152	2.171	2.774
	rounded logo	**3.481**	**0.686**	**0.152**	**3.180**	**3.783**

Additionally, as respects to the results reported in Table 4, no significant main effect of sound ((F (1, 105) = 2.873, p>.05) and no significant main effect of shape (F (1, 105) = 1.174, p>.05) on brand affection were found. On the other hand, the results revealed that there was a significant interaction effect of sound and shape (F (1, 105) = 31.171, p<.05) on brand affection.

So, these results revealed that the congruence between sounds of a brand name and shape of a brand logo significantly increases affection towards the brand.

Table 4
Results of Two-Way ANOVA

Dependent Variable	Independent Factor	F-Value	Sig.
Brand Affection	Sound	2.873	0.093
	Shape	1.174	0.281
	Sound x Shape	**31.171**	**0.000***

5. Discussion

This study explores the role of interaction between sounds of a brand name and shape of a brand logo in brand affection drawing upon sound and shape symbolism. Consistent with the findings of previous research conducted in English (Klink, 2003) and Hindi (Klink & Athaide, 2014), the findings of the experimental study conducted in Turkish revealed that the brand name including high frequency sounds such as fricatives and front vowels are more associated with angular logos; while the brand name including low frequency sounds such as plosives and back vowels are more associated with angular logos. Additionally, the findings of the study displayed that though there was no significant main effect of sounds of the brand name and shape of the brand logo on brand affection, there was a significant interaction effect of sounds in the brand name and shape of the brand logo on brand affection. More specifically, the findings presented that when a brand name including high frequency sounds such as fricatives and front vowels (Sivevef) and an angular brand logo come together, this combination significantly enhances the affection towards the brand. Similarly, when a brand name including low frequency sounds such as plosives and back vowels (Bugogot) and an angular brand logo come together, this combination significantly enhances the affection towards the brand.

In this context, this experimental study provides important contribution to relevant literature as follows. First, to the best of our knowledge, it is the first study in Turkish which indicate the interaction between sound and shape symbolism within the context of brand elements design. Second, as it is previously mentioned that the interaction effect of sound and shape on product evaluation and purchase intention has already been examined within the context of brand name and brand package design (Yaran Ögel, 2022). Different from that research, this study displays the effect of interaction between shape and sound on brand affection as a previously untapped context within sound and shape symbolism. Finally, the findings of the study also validated the sound symbolism effect in Turkish by supporting the universal sound symbolism argument (Ultan, 1978).

5.1. Managerial Implications

As well as contributing the literature, the findings of the study provide applicable insights to marketing practitioners in following aspects. First, the findings of the study guide marketing practitioners about how to design their brand elements by emphasizing congruent combination of sounds in a brand name and shape of a brand logo. In this context, to enhance the affection towards their brands, marketing practitioners should be careful about using some speech sounds in their brand names together with specific shapes in their brand logo. For instance, to enhance the positive feelings of consumers towards their brands, they should use high frequency sounds such as fricatives and front vowels in brand names with angular shapes in brand logos or they should combine brand names including low frequency sounds such as plosives and back vowels with rounded shapes in brand logos.

Second, it is widely known that brand names and brand logos are good at communicating the essence of the brands. So, they are mostly used to increase favorable brand associations regarding the brands. Based on the findings of the research, marketing practitioners would use congruent combinations of sounds in brand names and shapes in brand logos to improve the formation of strong, unique and favorable brand associations which in turn lead to brand affection. In this context, the findings of the study also help marketing practitioners about how to design their brand names and brand logos which together better communicate their brand meanings.

Finally, a successful brand name and a well-designed brand logo increase the brand awareness and strengthen brand image by supporting brand positioning. Depending upon the results of the study, if marketing practitioners combine appropriate sounds in brand names with appropriate shapes in brand logos, they could pave the way for synergy between brand name and brand logo in terms of communicating similar meanings that contribute to establishment of brand knowledge. Since brand knowledge leads to postive customer-based brand equity outcomes such as brand loyalty, the findings of the study would also provide valuable insights to marketing practitioners about how to design their brand elements to increase customer loyalty towards their brands.

6. Conclusion and Suggestions for Further Research

Brand elements are at the center of every marketing activity such as packaging and advertising. Thence, many times they are considered as the elements which the customers are mostly exposed. Particularly, to establish and strengthen the brand image and enhance the brand awareness, brand elements have a significant role in branding decisions. This explains why their design for a new product is the first decision in strategic brand management process. However, in today's overcrowded marketplace, designing brand elements, which easily differentiate a brand among the others, is a very difficult task. So, marketing practitioners have to find novel ways to design their brand elements.

To provide explanation to this issue, this study emphasizes the importance of sound and shape symbolism in brand element design. Accordingly, the findings of the study purported that if there is a congruent combination between sounds in brand names and shapes in brand logos, this interaction between sound and shape increases the positive feelings a consumers has towards the brand. Overall, the results of the study indicated the applicability of sound and shape symbolism in brand name and brand logo design, respectively. So, consistent with the previous research, the findings of study provide a set of tools to marketing practitioners to design their brand name and brand logo, effectively.

Limitations of the Study and Future Research Directions

This study has some drawbacks which must remarked. First, in order to reach participants on the basis of some specific criteria, purposive sampling method was used in the experimental study. However, purposive sampling method is one of the non-probabilistic sampling methods which could not be effectively used to generalize the findings to entire population. In this context, to generalize the results to larger sample size, probabilistic sampling methods would be used in further studies instead of non-probabilistic sampling methods as used in the experimental study. Second, freshmen and sophomores were the participants of the experimental study. Though the findings of the study supported the previous findings regarding sound and shape symbolism, it would be beneficial to work with different sample groups such as millennials, white-blue collars, housewives and so on in further studies. Third, in this experimental study only the interaction between brand name and brand logo was examined. On

the other hand, brand mark could also include some other factors such as color, font style, font size and so on. So, in further studies, it would be better to include other visual parameters regarding brand name and brand mark in the experimental design to provide broader insights about designing and selecting brand elements. Finally, this study only concentrated on brand affection as a dependent variable to check the interaction effect of sound and shape symbolism. However, to derive a better conclusion about the effects of sound and shape symbolism in brand element design, other dependent variables such as loyalty, satisfaction, and expectation would be employed by further studies.

References

Aaker, D. A., & Keller, K. L. (1990). Consumer evaluations of brand extensions. *Journal of Marketing, 54*(1), 27-41.

Abelin, Å. (2015). Phonaesthemes and sound symbolism in Swedish brand names. *Ampersand*, *2*, 19-29.

Akita, K. (2021). Phonation types matter in sound symbolism. *Cognitive Science*, *45*(5), e12982.

Albert, N., Merunka, D., & Valette-Florence, P. (2009). The feeling of love toward a brand: concept and measurement. *ACR North American Advances*, *in NA - Advances in Consumer Research Volume 36,* (pp. 300-307). Editors Ann L. McGill and Sharon Shavitt, Duluth, MN: Association for Consumer Research.

Baxter, S., & Lowrey, T. M. (2011). Phonetic symbolism and children's brand name preferences. *Journal of Consumer Marketing*, *28*(7): 516–523.

Baxter, S. M., Ilicic, J., Kulczynski, A., & Lowrey, T. (2015). Communicating product size using sound and shape symbolism. *Journal of Product & Brand Management*,*24*(5), 472-480.

Bhattacharya, C. B., & Sen, S. (2003). Consumer–company identification: A framework for understanding consumers' relationships with companies. *Journal of Marketing*, *67*(2), 76-88.

César Machado, J., Fonseca, B., & Martins, C. (2021). Brand logo and brand gender: examining the effects of natural logo designs and color on brand gender perceptions and affect. *Journal of Brand Management*, *28*(2), 152-170.

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, *65*(2), 81-93.

Derval, D. (2022). Sound and Voice Perception, IoT, and the Future of Living. In *The Right Sensory Mix* (pp. 279-310). Springer, Berlin, Heidelberg.

Ergenç, İclal. (2002). *Konuşma Dili ve Türkçenin Söyleyiş Sözlüğü*. Multilingual Yabancı Dil Yayınları, İstanbul.

Fenko, A., Lotterman, H., & Galetzka, M. (2016). What's in a name? The effects of sound symbolism and package shape on consumer responses to food products. *Food Quality and Preference*, *51*, 100-108.

Godinho, S., & V. Garrido, M. (2017). Branding with the in–out effect: The impact of consonantal articulation on brand evaluation. *Psychology & Marketing*, *34*(9), 904-911.

Göksel, A. & Kerslake, C. (2005). *Turkish: A Comprehensive Grammar*. Routledge, New York.

Harrison, J. and Baron-Cohen, S. (1997). Synaesthesia: An Introduction. *Synaesthesia: Classic and Contemporary Readings* (pp. 3-16). Editors Simon Baron- Cohen and John E. Harrison. Cambridge, MA: Blackwell Publishers, Inc.

Hemsley-Brown, J., & Alnawas, I. (2016). Service quality and brand loyalty: the mediation effect of brand passion, brand affection and self-brand connection. *International Journal of Contemporary Hospitality Management*, *28*(12), 2771-2794.

Henderson, P. W., & Cote, J. A. (1998). Guidelines for selecting or modifying logos. *Journal of Marketing*, *62*(2), 14-30.

Hinton, L., Nichols, J. & Ohala, J. J. (1994). Introduction: Sound Symbolic Processes. *Sound Symbolism* (pp.1-14). Editors Leanne Hinton, Johanne Nichols, and John J. Ohala. Cambridge, England: Cambridge University Press.

Hultén, B. (2011). Sensory marketing: the multi-sensory brand-experience concept. *European Business Review*, *23*(3), 256-273.

Jespersen, O. (1922), *Language: Its Nature, Development and Origin*. Allen& Unwin, London.

Jun, Y., & Lee, H. (2022). A sound brand identity design: The interplay between sound symbolism and typography on brand attitude and memory. *Journal of Retailing and Consumer Services*, *64*, 102724.

Keller, K. L., Heckler, S. E., & Houston, M. J. (1998). The effects of brand name suggestiveness on advertising recall. *Journal of Marketing*, *62*(1), 48-57.

Keller, K. L. (2013). *Strategic Brand Management Building, Measuring and Managing Brand Equity*. Pearson, England.

Klink, R. R. (2000). Creating brand names with meaning: The use of sound symbolism. *Marketing Letters*, *11*(1), 5-20.

Klink, R. R. (2003). Creating meaningful brands: The relationship between brand name and brand mark. *Marketing Letters*, *14*(3), 143-157.

Klink, R. R., & Athaide, G. A. (2012). Creating brand personality with brand names. *Marketing Letters*, *23*(1), 109-117.

Klink, R. R., & Athaide, G. A. (2014). Examining the brand name–mark relationship in emerging markets. *Journal of Product & Brand Management*, *23*(4/5), 262-267.

Kotler, P. H. (1991). *Marketing Management: Analysis, Planning, Implementation, and Control*. NJ: Prentice-Hall, Inc, Englewood Cliffs.

Köhler, W. (1929). *Gestalt Psychology*. Liveright, New York.

Köhler, W. (1947*). Gestalt Psychology: An Introduction to New Concepts in Modern Psychology*. Liverlight Publishing Corp, New York.

Knoeferle, K., Li, J., Maggioni, E., & Spence, C. (2017). What drives sound symbolism? Different acoustic cues underlie sound-size and sound-shape mappings. *Scientific Reports*, *7*(1), 1-11.

Lieven, T., Grohmann, B., Herrmann, A., Landwehr, J. R., & Van Tilburg, M. (2015). The effect of brand design on brand gender perceptions and brand preference. *European Journal of Marketing*, *49*(1/2), 146-169.

Lowrey, T. M., & Shrum, L. J. (2007). Phonetic symbolism and brand name preference. *Journal of Consumer Research*, *34*(3), 406-414.

Lowrey, T., Lerman, D., & Luna, D. (2007). Phonetic symbolism and brand name preferences in French and English. *ACR European Advances*, 8, 118-119.

Motoki, K., Park, J., Pathak, A., & Spence, C. (2022). The connotative meanings of sound symbolism in brand names: A conceptual framework. *Journal of Business Research*, *150*, 365-373.

Nunnally, J.C. (1978). *Psychometric Theory*. McGraw-Hill, Newyork:

Özsoy, S. (2004). *Türkçe'nin Yapısı I Sesbilim*. Boğaziçi Üniversitesi Yayınevi, İstanbul.

Park, C. W. and Zaltman, G. (1987). *Marketing Management*. The Dryden Press, Chicago.

Pathak, A., Calvert, G. A., & Lim, L. K. (2020). Harsh voices, sound branding: How voiced consonants in a brand's name can alter its perceived attributes. *Psychology & Marketing*, *37*(6), 837-847.

Ramachandran, V. S., & Hubbard, E. M. (2001). Synaesthesia--a window into perception, thought and language. *Journal of Consciousness Studies*, *8*(12), 3-34.

Sapir, E. (1929). A study in phonetic symbolism. *Journal of Experimental Psychology*, *12*(3), 225.

Silalahi, J. M., Alfansi, L., & Wiardi, A. H. (2016). The role of brand trust in determining the relationship between brand affection and loyalty programs on customer loyalty. *AFEBI Management and Business Review*, *1*(1), 12-28.

Spence, C. (2011). Crossmodal correspondences: A tutorial review. *Attention, Perception, & Psychophysics*, *73*(4), 971-995.

Spence, C. (2012). Managing sensory expectations concerning products and brands: Capitalizing on the potential of sound and shape symbolism. *Journal of Consumer Psychology*, *22*(1), 37-54.

Spence, C., & Ngo, M. K. (2012). Assessing the shape symbolism of the taste, flavour, and texture of foods and beverages. *Flavour*, *1*(1), 1-13.

Thomson, M., MacInnis, D. J., & Whan Park, C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology*, *15*(1), 77-91.

Ultan, R. (1978). Size-Sound Symbolism. *Universals of Human Language Volume 2: Phonology* (pp. 525-568). Editor Joseph Greenberg. Stanford: University Press.

Velasco, C., Salgado-Montejo, A., Marmolejo-Ramos, F., & Spence, C. (2014). Predictive packaging design: Tasting shapes, typefaces, names, and sounds. *Food Quality and Preference*, *34*, 88-95.

Yaran Ögel, İ. (2022). Exploring the importance of cross-modal correspondence among taste, shape and sound in designing a new product: An experimental study. *International Conference on Empirical Economics and Social Sciences,* July 29-30, 2022 / Bandırma – Turkey, 75-94.

Yorkston, E., & Menon, G. (2004). A sound idea: Phonetic effects of brand names on consumer judgments. *Journal of Consumer Research*, *31*(1), 43-51.