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An Experimental Study on the Effect of Sound and Visual Logos in Brand Recognition (an Abstract)

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AN EXPERIMENTAL STUDY ON THE EFFECT OF SOUND AND VISUAL LOGOS IN BRAND RECOGNITION (AN ABSTRACT)

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INTRODUCTION

In a visual society (CARPENTER and MCLUHAN, 1974), logos, colors and shapes are often the most used communication types (MENSSHEIN, 2015). It is evident, however, that the market faces saturation of this type of strategy. Get the attention of people has become a goal reached by few companies. Walsh, Henning-Thurau and Mitchell (2007) characterize the current consumer lives a situation of information overload, making it difficult to communicate an unmistakable brand identity in the consumer's mind.

In this context, address the consumer only by traditional signals (such as optical stimuli) is no longer considered enough. The consumer has to ignore information and use their selective attention to give focus to brands that offer more emotional connections, valorous, engagement and content (Jenkins, 2008; Roberts, 2004).

Spehr (2009) shows that the acoustic stimuli recently gaining importance in the context of changes (in the conditions of communication of the brand). Lindstrom (2007) illustrates that an individual may not notice a billboard on the street, and may also be looking at the food plate during the break of your favorite television show, but the sound will be heard, there is no escape. Bronner (2009) explains the principles of Sound Branding, a new area of research that is based on different theoretical disciplines (such as cognitive psychology, marketing and branding and musicology) and focuses the strengthening of the brand identity through the sound stimuli. Among the means that make up the Sound Branding, stands out in this study recognized the element as soon sound, a kind of sonic signature.

Whereas a brand should at least be recognizable and evoke perceptions by the consumer (KELLER, 2008), arises the question: Customers are actually able to recognize the logo sound of a brand as a message mediator as traditionally occurs in the case of visual logos?

This research adopts a causal approach. In other words, it seeks, through an experiment, evaluate the potential that just sound variable has the recognition of a brand. The paper is divided into three sections: first presents the fundamental theoretical elements; the second part presents the experimental design; the last section contains the results and discussions.

BACKGROUND

Sound Branding

The sound experience is totally different from visual (SA, 2010, p.91). The visual features five distinct perceptions: size, color, location, orientation, brightness and shape. Already the sound signal depends on the attributes: height, pace, time, contour, timbre, intensity and spatial location. The maintenance of the visual and sound elements is enough to identify a particular object. An example of this could be a melody that can be recognized even if they change, for example, the pace or a brand via a color (Levitin, 1999).

Sound perception has an immediate effect on memory, attitudes and emotions. Lusensky (2011) study recognizes that most young people listen to music every day. They justify this interest and dependence of the sonic stimulus to establish some sort of desired mental state (animation, concentration or relaxation). Gobé (2002) explains that the phenomenon could be linked to the fact that listening to music stimulates the production of endorphins in the body, activating the powerful pleasure centers in the brain. Therefore considers that the sound has the power to affect the speed of shopping, time spent in the store, the waiting time of people and even the ticket average.

In this context emerges the concept of sound branding. Borges and Fialho (2014) translate the idea and philosophy of sound fashion brand. Guerra (2013, p.42) states that a sound branding program "helps in the recognition of the message and the consolidation of its sound image" translating the concept of the brand acoustically. Already Winther (2012) explains that the fundamental concept behind the sound branding is to leverage the reactions of consumers and enhance their cognitive processes through sound and music.

Grooves (2012) argue that the sound itself has the ability to identify and transmit the brand attributes. Thus, we need a method of creating and executing that perfect the results of these sounds. The sound branding strategy includes a number of different tools.

Jackson (2003) explains that the sound logo is a kind of signature for up to three seconds sound format and function equivalent to a logo. They are short and simple parts composition from 3 to 6 musical notes. Music theory cannot be considered. It's just an acoustic element of the brand. The sound logo has a distinctive melody and serves to generate an identity in the various companies' interactions with its stakeholders. As visual logos, these sound sequences help distinguish the company in the customer's mind (GRAAKJAER and JANTZEN, 2009).

Moosmayer and Melan (2010) point out that in addition to learning and memory effects, sound logos are also thought to have an effect on the image of the brand advertised. Experiments indicate that the sound in increased communication has an impact on the evaluation of the consumer. Gobé (2002) projects that the sound logo is able to influence the attention and recognition generate associations that support the brand image.

The right sound, according to Groves (2015, p.3), must be unique and have memorability, which is by definition "the ability to be able to be recognized and remembered". This study in particular is focused on this and wants to check the effect of the sound logo in memory of the customers, assessing the real ability to recognize a particular brand.

METHODOLOGY

Experimental Study

We adopted the experimental design between subjects in the tests. That is, the subjects were randomly divided into three groups. To the first group was submitted five images corresponding to 15% of the features of the five brands of high renowned logo. The second group was shown the same set of images, however added the respective sound logos. The third group received twice visual traces (30%) of the same logos and sound logos of the respective brands. Thus, we have a one-way experiment with three levels of handling presence of visual and sound signals marks. The handling is illustrated in Table 1.

Table 1: Stimuli in the different groups.

Group 1	Group 2	Group 3
Logo traces (15%) 	Logo traces (15%)  + sound logo from the brand	Logo traces (30%)  + sound logo from the brand

Source: authors.

To choose the brands that would be tested in the experiment were asked to a group of college students to propose the first three names that appeared in its memory the following categories: beverages, automobiles, electronics, food and financial institutions. A list of more than 20 brands was nominated by the group. From this, the researchers identified which of these brands had sound logos. The Coca-Cola brand, Renault, Intel, Sadia and Itaú were agreed to the test. The sample consisted of 120 undergraduate students between 18 and 25 years old, in courses related to social sciences. As Hair et al. (2005), 30 observations are enough to perform the variance analysis, but the goal in this case was 40 observations per group.

RESULTS AND DISCUSSION

At total, 120 individuals participated in the test. There was a balance in number of participants in each group (33.3% in each treatment). The sample is composed of 54 individuals (45%) males and 66 (52%) female. All of the participants (100%) have between 18 and 25 years old.

Initially, it sought to verify the presence of the sound logo positively influenced the recognition brands used in the test. The dependent variable (Y) is ‘the brand recognition’; and as an independent variable (X) ‘the presence or absence of the sound logo’. The differences between group means were different. The group receiving the visual stimuli added to the sound presented superior results. The significance test (t), however, contradicts this difference of means ($p>0.05$) and indicates that the inclusion of the sound just did not translate to the groups a statistically significant result.

Seeking a thorough analysis, we applied a new set of t test considering the specificity of each of the brands. Again, analyzing the means of the groups, it is recognized that the visual stimuli added to the sound showed superior results in all cases. Added to this is identified that Coca-Cola and Intel brands reached a significance level ($p<0.05$), ie, the presence of the sound logo reflected in a statistically significant change from the group only realized the brand visual signals.

In a second step, we sought the measurement of brand recognition - independent variable (Y) - due to different volumes of signs of identity - dependent variable (X). Thus, there are three groups with different levels of information: the first group has fewer signs (15% of the logo), the second group, a signal of intermediate (15% logo + logo sound) and the third group, bulk signals (+ 30% logo + logo sound). To check the manipulation led to an analysis of variance test of a factor (one-way ANOVA). The differences of mean showed strongly significant ($F=60.15$; $sig=0.00$). The results therefore indicate that there were differences regarding the recognition of the brands in at least two groups. In order to check details on the results, we evaluated the pair groups along by the *Tukey* test.

The *Tukey* test confirms the existence of significant differences in mean and $p <0.05$ in the groups: exposed to 15% of the logo and exposed to 30% sooner sound logo ($p = 0.00$); and exposed to 30% sooner sound logo and exposed to 15% of the logo and logo sound ($p = 0.00$). But rejects the differences ($p> 0.05$) in the situation: exposed to 15% of the logo and exposed to 15% sooner sound logo ($p = 0.20$). The inverse relationship of the previously presented groups is positively proportional.

The results show that there are significant differences in the treatments, however, this change focuses on relationships: the group with the largest number of signals (group 3) in relation to the smaller number of signals (group 1) and the intermediate signals (group 2). The relationship between groups 1 and 2 showed no statistically significant differences. The specific analysis of the five brands was again performed. In all cases ANOVA demonstrated a significant difference between the groups ($p <0.05$). The *Tukey* test was also conducted. In this, only the Coca-Cola brand and Intel had $p <0.05$ in comparison between all groups is understood, therefore, that the recognition of the brand varies in relation to the volume of the identity signals. In cases of Coca-Cola and Intel, the results were different in the three groups of manipulation. In other cases the difference was significant only in cases where visual signals (higher percentage of logo elements) have been implemented.

CONCLUSIONS AND IMPLICATIONS FOR THEORY AND PRACTICE

The results from the set of five brands selected for the test showed an average increase of recognition. However, the evaluation by the t test explained that the groups did not show a statistically significant difference. Analyzing the results of isolated five brands, it was found that the cases of Intel and Coca-Cola have had different results, that is, in these cases the use of the sound variable brands resulted in higher average and significantly difference between groups. This indicates that despite the initial set test reject the hypothesis; Intel and Coca-Cola brands demonstrates that significantly can influence the recognition of their brands through sound. At the same time, it was found that the expansion of the identity signals exerted influence on the recognition of brands. Here, in addition to the manipulation of the sound logo also changed up the visual elements (logo).

Just as in the first situation, the results indicated that the manipulation of the sound just was not enough to generate significant differences in brand recognition. However, the comparison between the groups in which the visual stimuli were amplified (group 2 *versus* group 3) showed significant change. In the tests involving the set of brands, only optical signals are capable of modifying the means of the independent variable. In a parallel analysis of each of the brands, only the cases of Intel and Coca-Cola showed significant differences in the comparison between groups. Both the sound logo as the logo was able to significantly change the means of recognition.

In similar experimental study, Winther (2002) found positive results of sound logos on the attitudes and image of brands. However, it also found that the average recognition of respondents was low. Considers that the sound immediately takes effect on consumer emotions, but wondered if, in fact, generate significant effects on the brand recognition. Sound logos cannot be compared to the effects of the visual logo. The sound immediately activates association links with the brand with greater intensity, it is essential as a repeated exposure work the combination of visual and audio stimuli (situation that can explain the results of this study regarding the cases of Intel and Coca-Cola).

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