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**THE EFFECT OF MUSIC AND VOICE CONGRUENCE ON ATTITUDE  
TOWARD THE ADVERTISING AND PURCHASE INTENTION**  
**O EFEITO DA CONGRUÊNCIA DA MÚSICA E DA VOZ NA ATITUDE EM  
RELAÇÃO À PROPAGANDA E NA INTENÇÃO DE COMPRA**

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**ABSTRACT:**

Consumer attention is considered a rare and precious resource. In other words, it is difficult to obtain and easily lost (Angell *et al*, 2016). Several studies indicate that music can impact consumers' behavior, such as attention, attitudes, purchase intention, etc. However, musical elements, such as the singer's gender, can impact attitudes towards the advertising and purchase intention when the music style is congruent or incongruent with the advertising. To analyze the effect, literature concerning music congruence and voice was reviewed, and an experiment was conducted through an online survey. Results indicate that the singer's voice does not moderate the music style-advertising congruence relation. However, several insights about the singer's voice indicate that male and female voices can change the music style perception. The research suggests that music style may influence the attitude towards the advertising but not influence purchase intention.

**RESUMO:**

A atenção do consumidor é um recurso raro e precioso, ou seja, é difícil de ser obtido e pode ser facilmente perdido (Angell *et al*, 2016). Diversos estudos indicam que a música pode influenciar o comportamento do consumidor, como atenção, atitude, intenção de compra, etc. No entanto, a música é composta por diversos elementos e é incerto se a voz do cantor é um elemento capaz de afetar a atitude em relação à propaganda e a intenção de compra, em um contexto de congruência do estilo musical com a propaganda. Para analisar o efeito da voz, foi feita uma revisão de literatura sobre congruência e voz e, depois, conduzido um experimento por meio de um questionário online. Os resultados indicam que a voz não modera a relação de congruência entre o estilo musical e a intenção de compra e entre o estilo musical e a atitude em relação à propaganda. O resultado pode indicar que o gênero da voz pode mudar a percepção do estilo musical. A pesquisa sugere que o estilo musical pode influenciar na atitude em relação à propaganda, mas pode não influenciar na intenção de compra.





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## 1. Introduction:

To capture the consumer's attention, television advertisements make use of several elements such as music, images, sound effects, speakers, etc. Academic studies that consider musical elements in television advertisements point to the importance of background selection. Studies demonstrate how music can influence attitudes towards the advertisement – with the combination of background music processing, background musical tempo, and timbre, perspectives towards the brand, purchase attention, and purchase behaviour is positively affected (Demoulin, 2011).

In general, music studies focus on five central elements: presence, familiarity, participation, involvement, and congruence (Park *et al.*, 2015). This dissertation will focus on the congruence of the music, more specifically, the congruence of the musical style with the advertising and the congruence of the singer's gender with the advertising. Analysis of the literature indicates that congruence can be defined as “the fact of two entities going well together” (Maille; Fleck, 2011).

The notion of congruence also applies to aspects other than music, such as categorization. Our society understands and observes the world through categorization. That is, society groups people and objects with similar characteristics in a certain category (Kent & Moss, 1994). One of the forms of categorization is through gender identity, which can be defined as the extent to which an individual identifies with female or male personality traits (Kent & Moss, 1994). Products are also gendered. Consumers attribute the notion of gender identity not only to themselves but also to products (Iyer and Debevec, 1986; Milner *et al.*, 1990; Milner and Fodness, 1996; Fugate and Phillips, 2010), where a given product is classified as masculine or feminine according to its characteristics (Stets & Burke, 1999).

The brand can be more positively associated with consumer responses (i.e. brand preference, brand equity) when levels, either masculinity or femininity, of the brand are high. Moreover, congruence between brand and product category masculinity and femininity are more positively related to consumer preference. Therefore, brand

positioning with regard to masculinity or femininity should be considered in light of consumers' product category perceptions (Lieven *et al*, 2015).

Similarly, the voice is characterized by various elements such as gender, tone, vibrato, etc. In advertisements, the choice of voice is an important process since its congruence with the advertisement is capable of increasing the attitude towards the product, the brand image, and the Product's memory (North *et al*, 2004).

Therefore, this study seeks to understand whether, in a context of congruence between the musical style and the advertising, the vocalist's gender (masculine voice or feminine voice) congruent with the gender of the product (masculine or feminine) increases the attitude towards the advertising and the purchase intention.

## 1.1 Contextualization

Music has several elements, such as rhythm, voice, beat, tone, etc. and these elements are capable of sensitizing the mind to develop cognitive and emotional responses (Demoulin, 2011). In general, background music has been used as an important and effective tool for increasing consumers' message recall and comprehension when raising positive attitudes towards advertising, brand attitudes, and purchase intentions. Many studies showed this effect by focusing on the presence, familiarity, fit, involvement, and congruence (Park *et al.*, 2015).

Several studies demonstrated the importance of background music. Some of the titles: "music and voice "fit" (North, 2004), "music in advertising and consumer identity" (Abolhasani and Oakes, 2017), "the impact of background musical tempo and timbre congruity upon ad content recall and affective response" (Oakes and North, 2006), "when background music affects product perceptions" (Zhu, 2005) "Music influences on mood and purchase intentions" (Alpert, 1990), "Attributes of background music and consumers' responses to TV commercials" (Hee *et al*, 2015), "music-brand congruence" (Lavack, 2008), "Music congruency in a service setting" (Demoulin, 2011), "the Impact of Involvement and Background Music on Brand Attitude Formation" (Park, 1986). Despite that, the congruence between the

singer's gender in a song used as background music and the products' effect on attitude towards the advertising and purchase intention is still uncertain.

One of the first studies on background music focused on the presence versus absence of music. As a result, it was revealed that its presence could enhance (Hoyer *et al.*, 1984), inhibit (Sewall and Sarel, 1986), or have no effect (Stewart and Furse, 1986) on advertising memory.

As for the ones focused on familiarity, the results show an inverted U-shaped relationship between time and message recall for familiar music used in the background, but this effect was not found when considering unfamiliar music (Hahn and Hwang, 1999).

The relation between the emotion provoked by music and its effect on purchase intention can have a congruent or incongruent "fit". Results point to evidence that when music is used to evoke emotions congruent with the symbolic meaning of a particular product, the probability of purchasing it increases (Alpert *et al.* 2005).

As for involvement, the main goal was to understand the effect of background music in advertising by focusing on the effects of music attributed to consumers' attitudes towards advertising. The result shows that familiarity with background music is effective in low-involvement situations, while product fit with background music is effective in high-involvement situations (Park *et al.*, 2015).

Background music has different impacts on consumer behaviour. Its congruence with other elements in marketing is a topic studied in different contexts. Music congruence can be defined "as the extent to which music evokes meanings (i.e., thoughts, images, feelings) that are congruent with those evoked by ad messages" (Kellaris *et al.* 1993). Lavack *et al.* (2015) defined music congruence as the fit between the music and the brand.

Consumers categorize products in an advertisement according to their characteristics. One of the forms of categorization is through gender, in which a given product is seen as more masculine or feminine according to its characteristics (Stets & Burke, 1999).

The advertising elements have great importance in consumers' perception. The voice used to announce the products, for instance, if congruent with the Product, can increase the consumer's positive attitude towards the Product, the brand image, and product memory (North *et al.*, 2004).

Despite several studies on music advertising and its elements, the singer's voice in the music, its congruence, and its effects on attitude towards the advertising and purchase intention were never considered. However, studies that analyze the voice of the speaker in radio advertising have shown that the fit of the announcer's voice with the brand's advertising can increase the memory of the Product. Furthermore, the fit of voice with advertising was able to increase advertising ratings and the likelihood of purchasing the Product (North *et al.*, 2004).

Therefore, the present study seeks to understand the consumer's attitude towards the advertising and their purchase intention from the perspective of the congruence of the musical style with the ad, considering the vocalist's gender with the advertising. That is, if the product is categorized as more masculine when the music style and the voice present in the advertising are more masculine, the attitude toward the ad and purchase intention will increase.

## 1.2 Research Problem

Music in advertising and its effects on consumers is a topic that has been extensively explored. Research has generally focused on five components: presence, familiarity, fit, involvement, and congruence (Park *et al.*, 2015). The focus of this research will be the 'congruence' component, considering the musical style and the voice.

Some research on the musical style used in advertisements considered attitude towards the brand and visual memory as dependent variables. Results show that the high congruence between the music style and the advertising reinforced the attitude toward the brand (Hung, 2000, 2001). As for visual memory, the high congruence between the music style and the product attributes improved the recall of the ad's visual images (Gorn *et al.*, 1991; Stewart *et al.*, 1990; Stewart & Punj, 1998). The

congruence of the image with the music was analyzed, considering verbal memory as a dependent variable. The results of the studies demonstrated that the high congruence of the message with the music reinforced the brand name and the recall of the message, with attention gain (Kellaris et al., 1993).

The congruence between music style and some of the advertising elements impacts consumer perception. Therefore, the present study will analyze whether the congruence of the music style with the advertising can increase the attitude towards advertising and purchase intention. Despite numerous pieces of research considering the music style and its effects, studies were only found on the researched bases that analyze the music style considering the vocalist's voice.

However, studies on the announcer's voice in radio advertisements show that the voice is associated with the ability to remember specific information from the ad. In addition, it has a more positive evaluation and increases the probability of purchasing the product (North et al., 2004). Despite this study paying attention to the speaker's voice and its characteristics, it was found that the singer's voice in a song also carries meaning and, therefore, its congruence with the product's gender would bring more favourable evaluations to the product.

Thence, considering the literature on music congruence, voice, and the categorization of the product according to gender, some relevant questions arise: does the music style used in advertising affect the attitude towards the advertising? Does a music style, even if congruent with the message, with the vocalist's gender incongruent with the product's gender affect the attitude towards the advertising? These questions can be summarized with the question: How will the congruence of the product of an advertisement with the music style, considering the gender of the vocalist's voice, influence how the individual captures the message?

### 1.3 Research Goal

The questions presented aim to understand: whether the congruence of music style with advertising and the congruence of the vocalist voice gender (female or male)

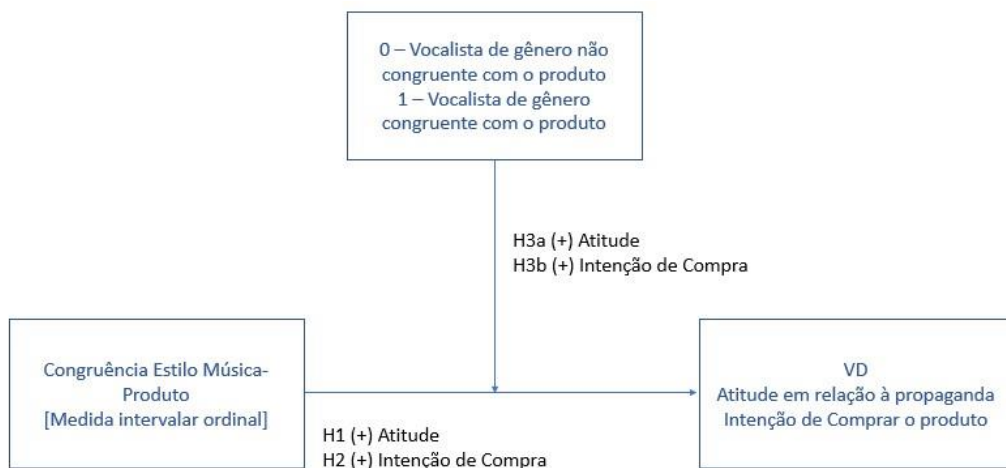
with the gender of the product in the advertisement increases the attitude towards the advertisement and the purchase intention.

To achieve this objective, the study will be divided into the following specific objectives:

1. Analyze the music style as a factor that increases the attitude towards the advertisement and purchase intention.
2. Analyze the gender of the product with the gender of the voice.
3. Analyze whether the voice used in the song (female versus male) increases (or decreases) the attitude towards the advertising, considering if the product is masculine or feminine.

Thus, the following model is designed:

Figure 1: Model



## 1.4 Relevance

Despite several studies about the music used in advertising and its implications, the effect of the music style and its congruence with the product, affecting the attitude towards the advertisement and purchase intention, still needs to be explored (Lavack et al., 2008). The present study intends to contribute theoretical perspectives to these two fields, analyzing the impact of the music style and the type of voice. Through



experiments, it will be possible to understand the kind of voice and music that affect the attitude towards the advertising and the purchase intention.

From a practical perspective, the results will help marketers make more assertive decisions about music. However, this choice directly interferes with the consumer's response to the advertisement and, consequently, with the purchase intention.

## 2. Literature review

### 2.1 Product categorization by gender

Gender identity is the extent to which an individual identifies with female or male personality traits (Kent & Moss, 1994). Products are also gendered. That is, consumers attribute the notion of gender identity not only to themselves but also to products (Iyer & Debevec, 1986; Milner & Fodness, 1996; Fugate & Phillips, 2010). In the current context where there is a change in how gender is understood, research shows that this has made the categorization of products by gender even more significant, even if the purchase of products congruent with the consumer's gender has lost relevance for some people (Fugate & Phillips, 2010). Another effect of product gender is that products with more evident gender identities are seen as more enjoyable, increasing purchase intent (Tilburg et al., 2015).

Product is classified by gender through gender identity (Worth et al., 1992), in which consumers classify it as male or female (Yan, 2016). Considering the context of consumer behavior, research has sought to understand this phenomenon since the 1960s, as gender identity can provide a rich understanding of consumer behavior (Palan, 2001). In general, the traits considered feminine or masculine are defined by society, and with that, an individual's gender identity would occur through self-identification with these traits (Stets & Burke, 1999).

However, even if a product is perceived as a specific gender, advertising can influence this perception by making the product categorization the opposite of what it usually considers (Schnurr, 2018). That is, considering the various studies in the field of marketing and psychology; it is possible to deduce that consumers develop

the notion of gender identity both for themselves and for the products, stimulated, in part, by gender images communicated through the media (Fugate & Phillips, 2010). The notion of gender identity congruence is a way of maintaining the integrity of the gender image, in which consumers look for products that are congruent with their gender identity (Milner & Fodness, 1996).

In the contemporary context, a cultural change is observed; for example, men wearing accessories previously considered feminine (necklaces, bracelets, earrings, etc.). Contrastingly, women are occupying more critical, dominant positions compatible with their male companions (Fugate & Phillips, 2010). In this context, there is a change in the perception of gender, in which purchasing products congruent with their gender is no longer critical for some individuals. However, this change movement moves towards greater identification of the gender of products than differentiation (Fugate & Phillips, 2010).

The process in which a specific product becomes masculine or feminine occurs through anthropomorphization (Epley et al., 2007). Consumers attribute human characteristics to it and evaluate it the same way they evaluate others (Govers & Schoormans, 2005). In this scenario, products assessed and strongly identified with one of the genders produce a better affective and behavioral response. Therefore, products more easily classified between one of the genders result in a more significant purchase intention, as they are considered more pleasant (Tilburg et al., 2015).

Thence, it is essential to delve deeper into this process since it is a perception that brings positive consumer attitudes. Congruence is a crucial factor in advertisements; thus, it will be studied in the context of the product with the music style and the product with the singer's gender.

## 2.2 Congruency

Congruence is the subject of study in research considering the effect of music. Due to the number of studies and divergent results, a perspective of music congruence

was created to unify those findings. Identifying the dichotomy implied in congruent or incongruent musical stimuli is essential to organize advertising thinking. It reveals how various forms of music congruence have found favorable results in empirical studies (Oakes, 2007). Heckler and Childers (1992) identified critical dimensions of congruence that include relevance (whether stimulus information contributes to or detracts from the clear identification of a message and its meaning) and expectation (whether stimulus information is consistent with prior knowledge structures of an individual associated with a particular theme). The following is a brief analysis of the impact of ten variants of congruence between music and advertising (Oakes, 2007).

The first variant is the congruity score, which states that when music is composed specifically for advertising, there is an effect of increased purchase intention (North et al., 2004). In studies that analyzed mood congruity, the results suggested an increase in purchase intention when there is a high congruence between the mood induced by music and the product (Alpert et al., 2005).

To analyze the attitude toward the brand, researchers studied repetition congruity, association congruity, valence congruity, semantic congruity, and gender congruity. When analyzing repetition congruity, the results show that the attitude toward the brand was reinforced when the advertising message was repeated by the lyrics (Anand & Sternthal, 1990). For association congruity, music associated with an unpleasant experience lowered brand evaluation (Blair & Shimp, 1992). In valence congruity, musical taste reinforces the attitude toward the brand (Mitchell, 1988), musical dislike decreases the attitude toward the brand (Simpkins & Smith, 1974), and musical taste increases the attitude toward the brand when involvement with advertising is low (Bozman et al., 1994; Park & Young, 1986). The results on semantic congruity, in turn, suggested that the high congruence between the ad, the lyrics, and the message reinforced the attitude towards the brand with low and increased involvement with the advertising (MacInnis & Park, 1991). Finally, when

analyzing the music style, the results demonstrate that the high congruence between the music style and advertising reinforced the attitude toward the brand (Hung, 2000; 2001).

The music style was also evaluated, considering the visual recall. The high congruence between the music style and the product attributes improved the recall of the ad's graphical images (Gorn et al., 1991; Stewart et al., 1990; Stewart & Punj, 1998).

As for verbal recall, the studies analyzed score congruity, image congruity, and tempo/timbre congruity. The results for the congruity score demonstrate that when music is composed expressly to be used in an advertisement, it increases recall levels (North et al., 2004; Tom, 1990; Yalch, 1991). Likewise, in music-message congruency, the high congruence of the music message reinforced the brand name and message recall, gaining attention (Kellaris et al., 1993). Finally, for tempo/timbre congruity, research indicates that memory of radio advertising content was enhanced by the greater congruence of musical rhythm and the greater congruence of musical timbre (Oakes & North, 2006).

Other studies have considered timbre congruity in affective response, where increasing musical timbre congruity improved reactions in the advertisement (Oakes & North, 2006). For an adequate response, studies considered score congruity and concluded that music composed to be used in a given advertisement improved the affective response to the ad (North et al., 2004).

A study on music-brand congruency considered attitudes toward the advertising and the brand. The result demonstrates that in high cognition ads, congruent music results in a more positive attitude towards the ad and attitude towards the brand, compared to incongruous music or no music (Lavack et al., 2008).

Another study considered the fit between the voice and the brand's desired image to analyze the product recall shown in an advertisement. The fit was defined as the

voice that corresponds with the consumer's subjective perception of relevance or fits with the core message. Voice manipulation was done through accent, speed, and the speaker's gender. According to the authors, the voice carries meanings beyond spoken words. In addition, different accents and voices were tested in the same radio advertisement to measure attitudes toward the product. The result from the simulation of the brand image and the memory of information from the ad indicates that this fit can improve the memory of specific product features and increase the taste rating for the ad and the probability of buying the advertised product (North et al., 2004).

Taking into account the variety of articles that analyzed music congruence, the present research will focus on music congruence with the product, the impact of the music style on the attitude towards the advertisement and purchase intention, and the congruence of the voice with the product.

### 2.2.1 Congruence of the music style with the product

Music can be classified by timbre, rhythm, pitch, and style. Timbre is generally used for voice and music differentiation and voice recognition. The element differentiates the mixture of sounds with the same or similar rhythmic content (Cataltepe et al., 2007). In addition, the perception of timbre is the component that people rely on to distinguish the gender of the voice (male versus female) (Pernet & Belin, 2012).

Rhythm is classified according to the movement of musical signals over time and contains information such as the regularity of rhythm, beat, tempo, and time signature (Cataltepe et al., 2007). Studies that consider rhythm have found that it can relax or agitate an individual and even influence the amount of food a person eats (Milliman, 1986).

The tone, in turn, plays an essential role in providing melody and harmony information about the music signal. Through the tone, we identify clues to classify a song in a particular music style (Cataltepe et al., 2007). The tone varies along a

spectrum, being easily manipulated, and is one of the first things a person encounters in any audio. Research shows that tone can interfere with several aspects of the consumer, such as food choice. A higher tone of music can indicate morality and make consumers more virtuous in their choices, increasing preferences for healthy options (Dong et al., 2019).

Finally, the music style was defined as "labels created and used by humans to categorize and describe the vast universe of music" (Tzanetakis & Cook, 2002, p. 293). Music styles (jazz, rock, pop, classical) are differentiated based on their appeal to various demographic segments (age, gender, education), which is one of the most critical factors in retaining consumer attention and defining ad response (Oakes, 2003). Gender identification by consumers through music style is a quick process that can happen within a second of exposure to an advertisement (Gjerdingen & Perrott, 2008; Plazak & Huron, 2011). Given the importance of choosing the music style, this study will seek to deepen its congruence with the product presented in a television advertisement.

As seen in the previous topic, musical congruence was studied in different contexts. Musical congruence can be defined as the extent to which the music used in an advertisement conforms or does not conform to the central message of the advertisement and the brand (Abolhasani & Oakes, 2017). Kellaris et al. (1993) defined the congruence of the music with the message as the congruence of the meanings communicated verbally and non-verbally by an advertisement.

Music congruent with advertising can affect consumers' engagement with the ad. That is because the sense of congruence is an individual perception considering the relevance and appropriateness of music regarding the central advertising message and the product (MacInnis & Park, 1991).

This creation results from the correspondence between elements of a set of stimuli with other items in the set; the individual parts are not perceived as separable, and

therefore, they do not compete with each other for cognitive resources (MacInnis & Park, 1991). Thus, musical congruence can contribute to communication effectiveness by increasing purchase intention and gaining attention and affective response compared to conditions of low congruence and without music (Abolhasani & Oakes, 2017). A situation of incongruity between the music and the advertising message can distract the cognitive processing of the advertising content since the consumer may pay more attention to unexpected music than to advertising (Oakes, 2007).

Incongruity, in turn, occurs in a situation of incompatibility between a stimulus element and the existing schema, which is maintained over the advertising stimulus (Eun-Ju & Schumann, 2004). For example, the effect of music incongruity happens when music reinforces a different meaning from those highlighted by other advertisement elements (Hung, 2000).

The specific music style is one of the most critical factors in retaining consumers' attention and determining their responses (Abolhasani & Oakes, 2017). When the music in an advertising piece is perceived as a specific style, the cultural meanings associated with it are transferred to the piece. Considering that and the fact that the consumer does not choose a product only for its attributes and utilities but also for its symbolic meanings, advertising pieces with music must use a style that conveys the meanings of the advertising context, resulting in a more desirable response in consumers (Abolhasani & Oakes, 2017; Bourdieu, 1994).

Therefore, the music style used in the background of advertisements can: influence the choice of the product by consumers, the recall of information, evaluations of the advertisement, and the brand and its perceived image. Different music styles can reinforce the advertising message in different contexts (Abolhasani & Oakes, 2017).

### 2.2.2 Impact of Music Style on Advertisement Attitude and Purchase Intention

The effect of music on advertising contributes to its meaning, which enhances the cognitive process; therefore, the congruence of music contributes to improving the attitude toward advertising (Lavack et al., 2008).

A study on radio advertising performance was taken to determine whether musical style differences can moderate the persuasive effect in low-involvement product advertisements. It found that adult contemporary music (compared to easy-to-listen music) produced more persuasive effects, favorable in purchase intention, attitude towards the brand, and attitude towards advertising (Sullivan, 1990). However, Lavack et al. (2008) proposed that this result may have been a consequence of an 'accidental' congruence caused by the product (non-alcoholic beverages and take-out meals) with the style of the music, which led to more positive evaluations.

Another study investigating the controversies found that considering music in advertising proposed to insert a contingency variable: the congruence of the music with the message. The results demonstrate that the high congruence of the message with the music reinforced the brand name and the recall of the message and attention gain (Kellaris, 1993).

Lavack et al. (2008) sought to demonstrate how background music and brand congruence affect advertising attitude and brand attitude in a radio advertisement when verbal messages make a difference in levels of cognitive demand. The results reveal that in high cognition ads, congruent music results in a more positive attitude toward the ad and attitude towards the brand, compared to incongruent music or no music. However, this effect is not found in low cognition ads, where ad attitude (and brand attitude) are similar for congruent, incongruous, and no music (Lavack et al., 2008). Therefore, greater congruence of music with advertising can increase attitudes towards advertising and purchase intention.



### 2.2.3 Voice Congruence with the Product

The choice of voice (gender of the speaker, tone of voice, and accent) in radio advertising is one of the most important decisions since the choice of voice can increase the advertisement's effectiveness (Martín Santana et al., 2014). Several studies have deepened the research on the difference in voice gender (male versus female). In psychology, we find studies on the differentiation between a male and female voice (Pernet & Belin, 2012) in behavioral and neural issues of voice perception related to gender (Junger et al., 2013). In research on political advertisements, analyzes have been made of how the speaker's choice of gender influences the perceived credibility of the ad (Strach et al., 2015). As for analyzing radio advertisements, it also endeavored to analyze the effects of the speaker's gender.

Studies on voice in psychology have shown the importance of understanding the classification process between voice gender since it has significant social pressure to know how to classify a person's gender correctly. Research that sought to understand the voice classification process found that voice gender categorization can be performed using just pitch. More importantly, in the categorization process, the pitch is used only when timbre information is ambiguous (i.e., for more androgynous voices) (Pernet & Belin, 2012).

In studies on political advertising, the main goal was to investigate how voice gender influences the choices in political advertising. The gender of the speaker is chosen according to the message that the political advertising intends to convey. The results show that although the vast majority of these advertisements use the male voice, this choice is made strategically and varies according to the candidate's characteristics and the tone of the ad (Strach et al., 2015).

A key point in increasing the persuasive power of the message is to increase the speaker's perceived credibility (Hovland & Weiss, 1951; Maddux & Rogers, 1980;

Watts & McGuire, 1964). Research indicates that women are viewed with less credibility, even when engaged in the same behavior as men (Armstrong & McAdams, 2009; Deaux, 1985; Kenton, 1989; Wallston & O'Leary, 1981). However, this difference may not be linked to stereotypes but to the difference in the vocal characteristics of the speaker (Klofstad, Anderson, & Peters, 2012; Nass, Moon, & Green, 1997; Tigue, Borak, O'Connor, Schandl, & Feinberg, 2011).

Finally, advertising researches indicate that the gender of an announcer's voice can impact the consumer. Different voices carry meanings far beyond the spoken word; voice congruence creates a more effective response to advertising. That is, even if the word pronounced by different voices is the same, the effect caused on the receiver by each one will be different. Considering this effect, research shows that voices with a better fit with advertising provoke a more enthusiastic attitude towards the product, brand image, and product memory. This fit depends on some characteristics of the voice, such as the speaker's accent, speed, and gender (North et al., 2004).

Research on singers' voices sought to understand the effects of type of voice in music. The results indicate a significant preference for low vibrato levels and male singers when specifying vocal vibrato in both male and female artists. In addition, female and male listeners associated "strong" performances with the male voice rather than the female one (LeBlanc & Sherrill, 1986).

Timbre is the element that differentiates the sounds with the same or similar rhythmic content (Cataltepe et al., 2007). The perception of timbre is the component that people rely on to distinguish the gender of the voice (male versus female) (Pernet & Belin, 2012). Most studies on timbre congruity showed an affective response, where increasing musical timbre congruity improved reactions in the advertisement (Oakes & North, 2006).

Given this, we can understand that several research areas have shown that voice gender is a variable that causes different results in different situations. For example, this has been proven in psychology (Pernet & Belin, 2012), political advertisements (Strach et al., 2015), radio advertisements (North et al., 2004), and music (LeBlanc & Sherrill, 1986; Oakes & North, 2006).

However, although several areas are engaged in this study, it is still uncertain whether the congruence of the vocalist's gender with the gender of the product in an advertisement influences the consumer's attitude towards the ad and their purchase intention. Therefore, the present study seeks to understand whether vocalist gender congruence has a positive, negative, or no impact on consumer response depending on the gender of the product.

### 3. Hypotheses

Previous studies indicated the importance of background music choice. When music style is congruent with the brand it can affect attitude toward the advertising, attitude toward the brand and purchase intention (Lavack, 2008). Since consumer does not choose a product only for its attributes and utilities, but also for its symbolic meanings, it is important that advertising pieces with music use a style that conveys the meanings of the advertising context, resulting in a more desirable response in consumers (Abolhasani and Oakes, 2017; Bourdieu, 1994). Therefore, it is postulated that when music style is congruent with the product in an advertisement, the attitude toward the ad and purchase intention increases.

Voice used in advertising also has a significant impact on consumers decision. On one hand, the choice of voice's announcer (gender of the speaker, tone of voice, and accent) in radio advertising is one of the most important decisions since the choice of voice can increase the advertisement's effectiveness (Martín Santana et al, 2014). On the other hand, research on singer's voice indicate a significant preference for low vibrato levels and male singers when specifying vocal vibrato in both male and

female artists. Both female and male listeners associated "strong" performances with the male voice rather than the female voice (LeBlanc and Sherrill, 1986). Voice in advertising has an impact on how consumers perceived the message, therefore, it is postulated that when the gender of the singer's voice is congruent with the genre of the product, that will increase the attitude toward the advertising and the purchase intention.

Considering all the exposed literature, it is proposed that when there is a scenario of congruence of the music style with the product, and the vocalist's voice, congruent with the product, it will increase the attitude towards the advertisement and the purchase intention. That is, the congruence of the music style with the product and the congruence of the male vocalist's voice (vs female) with a male product (vs female) will increase the attitude towards the advertisement and the purchase intention. Given this, the following hypothesis are postulated:

H1a: In a context of congruence between the music style and the product, the vocalist's voice congruent with the product category, it will increase the attitude towards the advertisement.

H1b: In a context of congruence between the music style and the product, the vocalist's voice congruent with the product category, it will increase the purchase intention.

H2a: In a context of congruence between the music style and the product, the vocalist's voice that is incongruent with the product category, it will decrease the attitude towards the product.

H2a: In a context of congruence between the music style and the product, the vocalist's voice that is incongruous with the product category, it will decrease the purchase intention.

## 4. Theoretical Model

## 5. Methodology

The present research intends to analyze the final result produced in dependent variables (purchase intention and attitude towards the advertising) when some independent variables (music ad congruence and music voice congruence) are manipulated, maintaining all the other variables unchanged. Thus, this scenario indicates that the methodology is classified as an experiment (da Costa et al., 2014).

### 5.1 Research Classification and Contextualization

The congruence between the musical style and the advertisement can increase the attitude towards the advertising, the attitude towards the brand, and the purchase intention (Lavack et al., 2008). This shows how relevant companies' decision on the background music choice is. Several studies focusing on organizations seek to deepen discussions around music advertising congruence to assist companies in this choice (Lavack et al., 2008; Kellaris et al., 1993).

A study that intends to use a design to examine phenomena using precise measurement (Polit & Beck, 2012) to collect numeric data through standardized questionnaires or experiments will process the data with quantitative statistics. Quantitative research is the determination of relationships between variables and outcomes and the development of a hypothesis – a description of the anticipated result, relationship, or expected outcome from the question being researched (Polit & Beck, 2012); therefore, the present study is classified as quantitative research.

The primary purpose of this study is to identify how the congruence of the music style and the voice gender with the product will influence how individuals capture the message transmitted by televised advertising. In assisting production managers in making decisions about the background music to increase the attitude toward the

ad and purchase intention of the consumers, it is possible to assume that the goal is to represent how the consumer thinks and acts in this context (da Costa et al., 2014).

The context of this research is television advertisements, in which it is possible to identify several persuasive elements used to capture consumers' attention, such as music, images, sound effects, speakers, etc. (Demoulin, 2011). Therefore, the present study will focus on music.

## 5.2 Sample Definition and Data Collection

The main goal of this research is to understand whether the music style and the gender of the voice in the music can influence how an individual captures the advertising message, translating it into the attitude towards the advertisement and purchase intention. An experiment will be conducted to verify what is proposed in theory, which, according to Falk and Heckman (2009), is a data collection method used when the main objective is to verify if the variation of only one variable can influence the final result. This collection method is appropriate because it only varies the musical style and the voice gender keeping the other variables of the model and the external variables constant (da Costa et al., 2014). To guarantee effectiveness, it is necessary to control all external variables that may interfere with the result (Falk & Heckman, 2009).

The pretest and the primary experiment sample will be collected from the Qualtrics tool. The experiment can be classified according to the type, the environment of performance, and the experimental designs used. Regarding the type, the study is considered experimental since it will be used as a random assignment of subjects. Each person will watch only one advertisement (Tools and Building Supplies x perfume) with one type of music (rock x pop) sung by one type of voice (masculine x feminine) that will be randomly assigned. As for the environment, the experiment will be done through an online questionnaire (due to the covid-19 pandemic crisis).

Finally, the experimental design will be between subjects since each participant will be exposed to only one experimental treatment. Each subject will watch only one video and will not be subjected to the experiment again (Lavack et al., 2008).

Before carrying out the main experiment, two pretests were conducted to analyze how people classify certain products according to gender, which music style is more appropriate to the product and if the chosen songs were correctly classified according to style and how the consumer understands the voice (female or male).

The main experiment aims to condition the congruence of music with the product and the congruence of voice's gender with the product (considering music style congruent versus incongruent with the product) and to determine the impact of those conditions on the attitude towards the advertisement and the purchase intention. A tool and Building Supplies advertisement and a perfume advertisement were chosen through a pretest to force the congruence condition of the music with the message. To avoid an effect of the original voice and the cover voice, all songs chosen will be sung by the covers. Except for the voice and the musical style, all other elements of the music, such as BPM, tone, and duration, will remain constant (Lavack et al., 2008).

### 5.2.1 Pre-test 1: Product and music style choice

The first pretest intends to define the product and music for the main experiment. The sample was collected through the Qualtrics tool since it is the only one that allows uploading videos and audio on the survey. The selected advertised products were perfume, sporting goods, beer, wine and tools, and building supplies.

According to Guttmann (2021) [web page], the industry of perfumes, cosmetics, and other toilet preparations spent approximately 3.7 billion U. S. dollars on advertising in 2020. Due to this relevant spending, it is relevant for this sector to deepen how to obtain the consumer's attention more effectively. That would justify why perfume was selected as one of the possibilities for this experiment.

Another sector that invests a significant amount of money is the sporting and athletic goods industry, which spent 356.78 million U. S. dollars on advertising in 2020 (Guttman, 2021) [web page]. Therefore, deepening how to make more effective advertising would be very relevant (Guttman, 2021) [web page].

The beer industry is a very relevant sector since it spent 698 million U. S. dollars in 2020 (Statista Research Department, 2021). Another relevant reason for considering this sector is that beer advertising produces cultural links between masculinity, sport/leisure, and beer consumption (Strate, 1992). Beer advertising showcases this "holy trinity" of masculinity, sport, and beer, inducing what, when, how, where, and with whom beer should be consumed (Wenner & Jackson, 2009). Therefore, this pretest seeks to verify if the consumer understands beer as a product linked to masculinity. Since this research aims to consider advertising and voice gender congruence, previous studies would justify beer as a masculine product.

The wine sector spent around 410 thousand U. S. dollars on advertising in 2020 (Guttman, 2020) [web page]. Therefore, studying how the consumer understands wine according to its product gender would be relevant to enhance the effectiveness of advertising according to the consumer target.

A single brand in the tool and building supplies sector (Milwaukee Electric Tool) spent under \$100 million on advertising in digital and print in the last year. However, it was invested in premium ad units and advertised on over 250 different Media Properties in the last year across multiple Media formats (Wilga, J). This product category was chosen not only for its spending but also because it is considered a masculine product (Chang et al., 2015).

The pretest was conducted to understand how the chosen product category is seen according to gender and the best music style for each product category. The questionnaire was divided into questions about music, product category, and social economics (Index 1). First, it was asked if the person agreed to be part of the



research. Only the yes answers were considered. After that, it was asked how often the responder listened to music (every day, – six times per week, up to three times, one-two times per week, and never). Again, only the 'never' answer was eliminated. Then, it was asked which music style the person enjoyed the most, and it was asked to classify ten music styles by their preference.

Questions about the products were asked. First, it was asked for the person to make an association between each product (wine, tool and building supplies, perfume, beer, and athletic goods) with a masculine/ feminine scale (Very masculine, masculine, neutron, feminine, and very feminine). After that, they were asked to associate the product with the music style (rock, hip hop/ rap, electronic, folk, and pop) that would fit better with the advertisement. The music styles were chosen according to Spotify's ranking "The top 20 music styles heard by Brazilians". Then, it was asked which music style (pop or rock) is more appropriate (pop is much more appropriate, pop is more appropriate, indifferent, rock is more appropriate, and rock is much more appropriate) for each product category (wine, tool, and building supplies, perfume, beer, and athletic goods).

Finally, some social and economic questions were asked. First, what is the education level (finish high school, incomplete under graduation, complete under graduation, incomplete post-graduation, complete post-graduation, incomplete master graduation (Stricto sensu), complete master graduation (Stricto sensu), incomplete doctorate degree, and complete doctorate degree). After that, it was asked to which age group the person belongs (up to 17 years old, from 18 – 24 years old, from 25 – 35 years old, from 36 to 50 years old, and from 51 years old). The last question was about the person's gender (feminine or masculine).

#### **5.2.1.1 Results**

A total of 386 people answered the questionnaire. However, only 277 answers were considered because the conditions were attended to or needed to be completed. Of

those 277, 191 (68.95%) were gendered as female, and only 86 (31%) were male; the majority of the sample has between 18 – 35 years old (63.5%) and had under graduation diploma (24.5%).

A significant result is for the product category to be considered masculine or feminine. For athletic goods, only 9% considered a very masculine category, and 0% considered very feminine; therefore, this product category was eliminated. As for beer, only 6% considered it very masculine, but 44% considered it a masculine category, 1% considered it a very feminine category, and 4% considered it feminine; therefore, this product category was eliminated. Tool and building supplies were considered a very masculine product category, 84%, and a masculine, 16%; therefore, this product category was elected to be in the main experiment. Perfume was considered a very feminine category, 85%, and feminine, 15%; therefore, this category was also elected for the main experiment. Finally, the wine category was considered neutron (21%), feminine (67%), and very feminine (10%); in this case, the category was eliminated due to the high percentage in the neutron option.

The product category was extreme in two options: tool and building supplies and perfume. The main goal of this research is to understand if the gender of the voice can enhance the effect of the music style congruence – attitude towards the advertisement relation and the music style congruence – purchase intention relation in a scenario where the product in the advertisement is considered either very feminine or very masculine. Therefore, both perfume and tool building supplies were elected for the main experiment, and the result should be the same.

Another critical insight in this pretest is to verify which music style is more congruent with the product category. The music styles were chosen to consider the presence of voice (since it is a variable in this study) and the clear difference between them. When asked for the person to make an association between the product category and the music style, 48% considered rock more congruent with the tool-building category, and 43% considered perfume more congruent with pop

music. After that, it was asked for the person to answer between the product categories if rock or pop were more appropriate. The result shows that 75% find a rock more appropriate for tools and building supplies, and 68% consider pop music more congruent with perfume. Therefore, the scenario for the main experiment will consider rock congruent with a tool and building supplies and pop congruent with the perfume ad.

### 5.2.2 Pre-test 2: music choice

This pretest intends to make an understanding of how musical genders are classified. The sample will be collected through the Qualtrics tool. A group of ten songs will be tested, five rocks and five pops since they represent two different musical styles that can represent an example of congruence between music and product. All songs will have the same volume, tempo, tone, and duration of thirteen seconds. These songs were presented as an online questionnaire to a minimum of thirty participants (Lavack et al., 2008). Each respondent will listen to five different songs sung by women or men.

After listening to each song, respondents indicated how familiar the song is on a four-point scale (1 = not at all familiar and 4 = very familiar) (Lavack et al., 2008). After that, it was asked how the song's quality was on a five-point scale (1 = very bad, 5 = very good). After that, it was asked if the singer in the song were male, female, or both. Then, the respondents were asked to classify the voice as very masculine or feminine on a five-point scale. Finally, it was asked to categorize the song as Pop, Rock, or another music style (Lavack et al., 2008).

#### 5.2.2.1 Results

A questionnaire (index 2) was presented to 45 people, in which five of them had to be eliminated due to incomplete answerers; therefore, 40 answers were analyzed. To select songs from each style category, the evaluations must have the same result; Both pop and rock music songs must be correctly classified according to their style

(pop or rock). Pop music must be correctly classified as pop, and rock music must be correctly classified as rock (Lavack et al., 2008).

The result for the correct classification condition, Born to be Wild (by Steppenwolf), Best of you (Foo Fighters), Immigrant song (by Led Zeppelin), Numb (by Linkin Park), Little do you know (by Alex and Sierra), and Cardigan (by Taylor Swift) were eliminated. This result has a fascinating insight, all the rock songs were wrongly classified when a woman sang them but correctly classified when sung by a man. Another observation is that mostly the rock songs were miss classified, while almost all the pop songs were classified correctly.

For song quality, almost all of them were classified as very good or good quality music. The only two songs eliminated by this criteria were Viva la Vida (by Coldplay), sung by a man, and Cardigan (by Taylor Swift), both male and female versions.

The last analysis of this pretest considers the voice of the singer. Although all the songs were correctly classified when answered if a man or woman sang them, these criteria eliminated only three songs: the Best of You, sung by a woman, Immigrant song sung by a woman, and Numb, sung by a woman. When asked if the voice was masculine or feminine, the Immigrant song was wrongly classified and eliminated.

Therefore, the pop song that attends to all the conditions in both female and male voices was I don't wanna live forever (by Taylor Swift and Zain), and the rock song that attends to all conditions for both female and male voices was Sweet Child of Mine (by Gyns N' Roses).

### 5.2.3 Main Experiment

The pretests were essential to developing the main experiment, mainly for song choice and advertising. The pretests provided the basis for developing a 2x2x2 between subjects, experiment (2 (type of advertisement: masculine x feminine) x 2

(music type: rock vs pop) x 2 (voice gender: male vs female)), resulting in 8 experimental cells (Table 1). To test the hypotheses, the experiment was later collapsed into a 2 x 2 statistical analysis (2 (product-music congruence: congruent vs incongruent) x 2 (product-voice congruence: congruent vs incongruent) (Lavack et al, 2008).

To facilitate the analysis, each cell was abbreviated according to the type of advertising (construction tools x perfume), type of music style (pop x rock), and type of voice (masculine x feminine). Group 1 is indicated as FRM (ferramenta, rock, masculino/ construction tool, rock music and masculine voice); group 2 is indicated as FRF (ferramenta, rock, feminino/ tool construction, rock music and feminine voice); group 3 is indicated as FPM (ferramenta, pop, masculino/ construction tool, pop, masculine); and group 4 is indicated as FPF (ferramenta, pop, feminino/ tool construction, pop, feminine). For the other product category (Perfume) the groups were indicated as PPM (Perfume, pop, masculino/ perfume advertising, pop music, masculine voice) as group 5, PPF (Perfume, pop, feminino/Perfume, pop, feminine) as group 6, PRM (Perfume, rock, masculino/Perfume, rock, masculine) as group 7 and PRF (Perfume, rock, feminino/Perfume, rock, and feminine) as group 8..

*Table 1: Grupos*

	ROCK		POP	
	Masculine	Feminine	Masculine	Feminine
Construction Tool	FRM (1)	FRF (2)	FPM (3)	FPF (4)
Perfume	PRM (7)	PRF (8)	PPM (5)	PPF (6)

### **5.2.3.1 Subjects**

A total of 538 people participated in the main study, each participating in one of the eight experimental conditions. Participants were each exposed to a 30-second ad, and then filled out a questionnaire that took approximately 4 minutes to complete (index 3). In total, 122 questionnaires were incomplete and eliminated, leaving 416

suitable for analysis (288 females and 128 (Lavack et al, 2008). In addition, some control questions about the advertisement, the product, the music, and the congruence were included. The back translation process validated the questions and scale items (index 4). That is, a specialist (a native Brazilian master in English literature) did the translation from English to Portuguese and another specialist (a native Brazilian graduate in international relations and analyst at the American Chamber of Commerce). After that, an academic professor validated the back translation.

### **5.2.3.2 Questionnaire**

The questionnaire was designed to test the hypotheses postulated previously. Each question was asked for the respondent to mark in a seven-point scale in which 1 means 'completely disagree' and 7 means 'completely agree'. More than one question was made for each of the constructs, to verify if all the items were measuring the same thing, it was calculated Cronbach's alpha for each of the constructs. The questionnaire was shared with a group of people, shared with other groups of people, and so on. To ensure that the same person did not answer the same survey twice, it was eliminated questions that had the same IP address. Two types of advertising (tool and building supplies x perfume) were randomly assigned to each respondent to create two different scenarios: where a tool and building supplies is assumed to be more congruent with rock music, and male voice and perfume is assumed to be more congruent with pop music and female voice.

To ensure that the advertising was watched with sound first, in the instructions, it was warned that it was necessary to guarantee a device with good sound quality to answer the survey. The answers that were incorrectly answered were eliminated. In the scenario where a woman sings a rock song, it was more often incorrectly classified; for pop music, almost none were incorrectly classified. Demographic questions were asked at the end of the questionnaire 'what is your education level?', 'what is your age group' and 'what is your gender?'

Attitude towards the advertising was measured using a seven-point scale with four items 'I really liked the advertising'; 'I found the advertising very favorable', 'I found the advertising appealing; and I found the advertising pleasant, with a Cronbach's alpha of 0,930. Purchase Intention was measured by using a seven-point scale, with three items 'I would probably buy the product advertised, 'It is possible for me to buy the product advertised', and 'I would definitely buy the product advertised', with a Cronbach's alpha of 0,774. (Lavack et al, 2008).

Advertising considers as a seven-point scale measured masculine, with 1 meaning 'completely disagree' and 7 meaning 'completely agree', with four items 'The advertising is adventurous'; 'The advertising is brave', 'The advertising is daring', 'The advertising is bold', with a Cronbach's alpha of 0,897. As for Advertising considered as feminine it was measured by a seven-point scale, with four item, 'The advertising is fragile', 'The advertising is gracious', 'The advertising is sensitive', and 'The advertising is sweet', with a Cronbach's alpha of 0,793 (Grohmann, 2009).

A seven-point scale measured voice advertising congruence (1 meaning completely disagree and 7 meaning completely agree with three items 'The singer's voice and the advertising has a very good relation', 'The singer's voice is totally appropriated for the advertising' and 'I feel that the singer's voice communicate well the advertig message', with a Cronbach alpha of 0,951. For music style and advertising congruence was adapted the same questions for music style 'The music style and the advertising has a very good relation', 'The music style in totally appropriate for the advertising' and 'I feel that the music style communicates well the advertising message', with a Cronbach's alpha of 0,97 (do Nascimento et al, 2013).

### **5.2.3.3 Results**

A series of manipulation checks measured the level of music familiarity, music style recognition, congruence between music style and advertising, and congruence between the singer's voice and advertising. All manipulation checks showed that

only some of the anticipated results for attitude towards the advertising were obtained. However, purchase intention it was not affected by music congruence, voice congruence or the interaction between them in either of the advertisements (tool and building supplies or perfume) (Lavack et al, 2008).

#### **5.2.3.3.1 Voice genre: congruent music style vs incongruent music style**

The theory has demonstrated that different music styles, one congruent and the incongruent with the advertising, impact attitude towards the advertising and purchase intention (Lavack, et al., 2008). Due to that, it is expected that a music style more congruent with advertising will enhance the attitude towards the ad and purchase intention. Furthermore, the theory about voice has demonstrated that the male voice in a male product can impact the attention and retention levels of advertising (Rodero et al., 2012). Therefore, the research intends to analyze whether male and female voice congruence could impact advertising and purchase intention attitudes.

To analyze the impact of voice-advertising congruence (congruent/ incongruent) and music-advertising congruence (congruent/ incongruent) on attitude towards the advertising and purchase intention, that is, to examine if there is a difference between the groups, two-way ANOVA was conducted. The ANOVA premises (independence of the sample, normal distribution, and homoscedasticity) were tested for that. For independence, this premise was validated through the questionnaire distribution, which was completely random, and subjects with the same IP address were eliminated. For a normal distribution, it was conducted Kolmogorov-Smirnov and Shapiro-Wilk tests. Finally, the homogeneity test was analyzed through the Leven test.

The result (Table 1) indicates that, on the one hand, attitude Towards the Advertising (MAAD) group one ( $0,0 < p=0,05$ ), seven ( $0,042 < p = 0,05$ ) and eight ( $0,1 < p = 0,05$ ) does not have a normal distribution. On the other hand, Purchase Intention



(MPI) only groups two ( $0,247 > p = 0,05$ ), five ( $0,84 > p = 0,05$ ), six ( $0,091 > p = 0,05$ ), and seven ( $0,205 > 0,05$ ) follows a normal distribution. This result indicates that the first premise was not attended. To continue the analysis, the data was processed by bootstrapping (1000 re-samples: 95% confidence interval) to correct normality deviations (Haukoos & Lewis, 2005).

Table 2: Testes de normalidade

	Tipo de vídeo	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Estatística	Gl	Sig.	Estatística	gl	Sig.
MAAD	1,0	,175	53	,000	,854	53	,000
	2,0	,102	52	,200*	,960	52	,075
	3,0				,968	52	
	4,0	,079	52	,200*	,960		,179
	5,0				,970		
	6,0	,098	52	,200*	,969	52	,081
	7,0				,952		
	8,0	,094	50	,200*	,944	50	,226
						50	
		,087	50	,200*		50	,208
		,110	50	,185			,042
		,104	57	,196		57	,010
MPI	1,0	,106	53	,196	,945	53	,017
	2,0				,972		
	3,0	,094	52	,200*	,952	52	,247
	4,0				,945		
	5,0	,143	52	,010	,959	52	,036
	6,0	,103	52	,200*	,960	52	,018
	7,0				,969		
	8,0	,102	50	,200*	,958	50	,084
						50	
		,129	50	,038		50	,091
		,119	50	,074		50	,205
		,147	57	,004		57	,044

\*. Este é um limite inferior da significância verdadeira. a. Correlação de Significância de Lilliefors

Another premise for ANOVA is the homogeneity of error variances. Table 2 indicates that for tool and supplies advertising, for each dependent variable attitude Towards advertising: ( $F = 0,876$ ,  $df1 = 3$ ;  $df2 = 205$ ,  $p = 0,455$ ). Purchase Intention ( $F = 1,031$ ,  $df1 = 3$ ,  $df2 = 205$ ,  $p = 0,38$ ), the groups are homogeneous; however, in perfume advertising, only the dependent variable Purchase Intention ( $F = 0,808$ ,  $gl1 = 3$ ,  $gl2 = 203$ ,  $p = 0,49$ ) has homogeneous variance (Table 3). To continue the analysis, for perfume advertising, the variable attitude Towards advertising was correct through Welch and Games-Howell analysis (Field, 2015).

For tool and building supplies, ANOVA indicates a significant effect of music style ( $F = 27.038$ ,  $gl = 1$ ,  $p = 0.000$ ) on attitude Towards the advertising but no significant main effect of voice ( $F = 3.718$ ,  $gl = 1$ ,  $p = 0,055$ ) and no significant interaction effect between music style and voice ( $F = 1.634$ ,  $gl = 1$ ,  $p = 0,203$ ). Therefore, hypothesis 1, that voice congruence would enhance the attitude towards advertising, was partially attended to.

Another (two-way) ANOVA examined whether congruence between music style and advertising and voice and advertising can impact Purchase Intention in a tool and building supplies advertising. The results suggest a main effect of music style ( $F = 37.403$ ,  $gl = 1$ ,  $p = 0.000$ ) but no significant main effect of voice ( $F = 1.128$ ,  $gl = 1$ ,  $p = 0.289$ ) and no significant interaction between music style and voice ( $F = 1.303$ ,  $gl = 1$ ,  $p = 0.255$ ). Thus, hypotheses 1a and 2a were partially attended.

A (two-way) ANOVA for Purchase Intention was conducted for perfume advertising. Results suggests no main effect for music style ( $F = 0.025$ ,  $gl = 1$ ,  $p = 0.875$ ), voice ( $F = 0.008$ ,  $gl = 1$ ,  $p = 0,929$ ) and interaction between music style and voice ( $F = 0.018$ ,  $gl = 1$ ,  $p = 0.892$ ). Thus, results suggest that hypotheses 1b and 2b of music style congruence can impact purchase intention was not attended.

Welch's statistics indicate that there are various differences between attitudes toward advertising in the context of perfume ( $F = 2,746$ ,  $gl1 = 3$ ,  $gl2 = 112,117$ ,  $p = 0,046$ ).

For this variable, Post Hoc analysis demonstrates that only video six (Perfume, Pop music, and feminine voice) and seven (Perfume, Rock music, and masculine voice) are significantly different on the 'attitude towards the advertising' variable ( $0,024 < p = 0,05$ ) for Tukey HSD and ( $0,03 < p = 0,05$ ) Bonferroni. This result indicates that in congruent scenario (Perfume Advertising with Pop music and sung by a female voice) has a significant difference from the incongruent scenario (Perfume advertising with Rock music and sung by a male voice) on the dependent variable's attitude Towards the Advertising'. Therefore, results suggest that the hypothesis of higher congruence would have a higher attitude towards the advertising might be attended in perfume advertising.

### 5.3 Conclusion

This study investigated the effects of the singer's voice (congruent x incongruent) combined with either background music that was (in)congruent with the advertising.

The theory has demonstrated that congruent (x incongruent) music styles can impact attitudes toward advertising and purchase intention (Lavack, et al., 2008). Due to that, it was expected that a music style more congruent with advertising would enhance the attitude towards the Ad and Purchase Intention.

To verify this impact on attitude Towards the Advertising and Purchase Intention, (two way) ANOVA was conducted for each variable. The result suggests that music style might impact attitudes Towards Advertising since the main effect was observed for both types of advertising (Tool and building supplies and perfume). However, for Purchase Intention, only Tool building supplies had the main effect on music style, that is, this result cannot be generalized because the result was different for different types of advertising.

Theory about voice has demonstrated that male voice in a male product can affect the attention and retention levels of advertising (Rodero et al., 2012). However, studies about the voice have only considered the voice announcing something in

advertising; the impact of the voice singing the music was never studied. Based on studies about the announcer's voice and the different impacts that it can have on the consumer's perception, the research intends to analyze whether the male and female voice congruence could affect attitude towards the Advertising and Purchase Intention.

To verify this impact on attitude towards the Advertising and Purchase Intention, (two way) ANOVA was conducted for each variable. The results suggest that the singer's voice (masculine x feminine) has no impact on attitude towards the Advertising and Purchase Intention.

## 5.4 Discussion

This study investigated the effects of the singer's voice (congruent and incongruent) combined with background music that was (in)congruent with the advertising. The results suggest that when music style is congruent (rock music with construction tool advertising and pop music with perfume advertising), attitudes towards the Ad were significantly more positive than in the incongruent music condition (pop music with construction tool advertising and rock music with perfume advertising). However, there was no effect on Purchase Intention. This study contributes to the literature on the use of music in advertising by considering the overlooked issue of congruency between advertising and music. The focus was on the effects of music in television advertising, mainly the singer's voice, an area that has yet to receive much attention.

The findings suggest that, in addition to facilitating processing through its effects on cognitive resources, music can provide a framing function in advertising, where it enhances the attitude towards Advertising (MacInnis & Park, 1991; Hung, 2001; Lavack, 2008). In the music style congruence condition, music may provide convergent information about the attitude towards the advertising. In this study, rock music paired with the Tool and Building supplies ad and pop music paired with the

Perfume ad may have enhanced its attitude towards the ad. However, when rock was paired with construction tools and pop music with perfume, neither of those scenarios seemed to impact Purchase Intention. Furthermore, masculine voice paired with rock music and construction tools ad and feminine voice paired with pop music and perfume ad, there was no significant difference in attitude towards the Advertising and Purchase Intention, regardless of whether music was congruent or incongruent.

## 5.5 Limitation and Future Researches:

This research focused on whether the singer's voice congruence could enhance the music attitude towards the ad congruence and music-purchase intention congruence. During the pretest, it was found that when a woman sings rock music, the perception of the music style changes. When asked what type of music style was played in the ad, some answered pop music when a woman was singing, while for a man's voice, there were no wrong answers for rock music. Future research can deepen on voice perceptions.


Another limitation of this research is the covid-19 crisis. This context limited the experimental data collection in which an online survey had to be conducted instead of a controlled environment. This research could be replicated in a more controlled environment to confirm the findings.

This research was the first one that considered the singer's voice impact. Despite the lack of evidence that this could affect consumer perception, future research could deepen on the singer's voice on other variables or how gender's voice can enhance advertising credibility since voice can influence how music style is perceived.






## 6. Index

*Figure 1: Pre-teste 1*

Faça uma associação das categorias de produtos (coluna da esquerda com imagens) apresentados abaixo, quanto a sua percepção pessoal em relação ao gênero do produto (coluna da direita). Todas as colunas da direita devem ser preenchidas com apenas uma imagem.

<p>Itens Vinho</p> 	<p>Muito Masculino</p>
<p>Ferramenta</p> 	<p>Masculino</p>
<p>Perfume</p> 	<p>Neutro</p>
<p>Cerveja</p> 	<p>Feminino</p>
<p>Artigos esportivos</p> 	<p>Muito feminino</p>

Faça uma associação das categorias de produtos (coluna da esquerda com imagens) apresentados abaixo, quanto a sua percepção pessoal em relação aos estilos musicais (coluna da direita). Todas as colunas da direita devem ser preenchidas com apenas uma imagem.

<p>Itens Vinho</p> 	<p style="text-align: center;"><b>Rock</b></p>
<p>Ferramenta</p> 	<p style="text-align: center;"><b>Hip hop/ rap</b></p>
<p>Artigos esportivos</p> 	<p style="text-align: center;"><b>Eletrônica</b></p>
<p>Perfume</p> 	<p style="text-align: center;"><b>Folk</b></p>
<p>Cerveja</p> 	<p style="text-align: center;"><b>Pop</b></p>

Marque qual é o estilo musical mais apropriado para uma propaganda de ferramenta



Pop é muito mais apropriado

Pop é mais apropriado

Indiferente

Rock é mais apropriado

Rock é muito mais apropriado

Marque qual é o estilo musical mais apropriado para uma propaganda de cerveja



Pop é muito mais apropriado

Pop é mais apropriado

Indiferente

Rock é mais apropriado

Rock é muito mais apropriado



Marque qual é o estilo musical mais apropriado para uma propaganda de item esportivo



Pop é muito mais apropriado

Pop é mais apropriado

Indiferente

Rock é mais apropriado

Rock é muito mais apropriado

Marque qual é o estilo musical mais apropriado para uma propaganda de vinho



Pop é muito mais apropriado

Pop é mais apropriado

Indiferente

Rock é mais apropriado

Rock é muito mais apropriado

Marque qual é o estilo musical mais apropriado para uma propaganda de perfume



Pop é muito mais apropriado

Pop é mais apropriado

Indiferente

Rock é mais apropriado

Rock é muito mais apropriado

Figure 2: Pre-teste 2



Qual o seu nível de familiaridade com a música? (1 = nada familiar e 4 = muito familiar)

1

2

3

4

Como você classificaria a música quanto ao estilo musical?

Pop

Rock

Outro

Como estava a qualidade da música? (1 = Muito Ruim; 5 = Muito bom)

1
2
3
4
5

A voz principal era de:

Homem
Mulher
Ambos

Como você classificaria a voz do cantor? (1 = muito masculina; 5 = muito feminina)

1
2
3
4
5

*Figure 3: Experimento (Ferramenta)*



Você confirma que assistiu ao vídeo com o som ligado?

Sim

Não

Qual o estilo musical tocado na propaganda?

Pop

Rock

Outro



Você confirma que assistiu ao vídeo com o som ligado?

Sim

Não

Qual o estilo musical tocado na propaganda?

Pop

Rock

Outro

Figure 4: Back Translation

Original	1ª Tradução	Back-translation
Not at all masculine/ Very masculine	Nada masculino/ muito masculino	Not at all masculine/ Very masculine
Not at all feminine/ Very feminine	Nada feminino/ muito feminino	Not at all feminine/ Very feminine
Like/ Dislike	Gostar/ Não gostar	Like/Dislike
Offensive/ tasteful	Ofensivo/ Bom gosto	offensive/ good taste (dignified or sophisticated)
Favorable/ Unfavorable	Favorável/ Desfavorável	Favorable/ Unfavorable
Repulsive/ Appealing	Repulsivo/ Atraente	Repulsive/ Attractive
Pleasing/ Disturbing	Agradável/ Perturbador	Pleasing / Disturbing

Unlikely/ Likely	Improvável/ Provável	Unlikely/ Likely
Impossible/ Possible	Impossível/ Possível	Impossible/ Possible
Never/ Definitely	Nunca/ Certamente	Never/ Certainly
Definitely do not intend to buy/ Definitely intend to buy	Definitivamente não compraria/ definitivamente compraria	Definitely wouldn't buy/ Definitely would buy
Very low purchase interest/ Very high purchase interest	Baixíssimo interesse de compra/ Alto interesse de compra	Very low interest in buying / high interest in buying
adventurous	Radical	Adventurous
Brave	Destemido	Brave
Daring	Desafiador	Daring
Bold	Audaz	Bold
Sturdy	Forte	Resistent
Fragile	Frágil	Fragile
Graceful	Gracioso	Gracious
Sensitive	Sensível	Sensible
Sweet	Doce	Sweet
Tender	Meigo	Tender
Does not apply at all	Não se aplica	Does not apply
Fully applies	Aplica-se totalmente	Fully applies
	Bárbara Ehler (bacharel e mestre em Literatura Inglesa pela Universidade de Oxford, Inglaterra)	Carmen Manglano (bacharel em Relações Internacionais e analista plena na Câmara de Comércio Americana)

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