CATÓLICA LISBON
BUSINESS & ECONOMICS

The Price of Music: How Sonic Logos influence the Willingness to Pay

Lorenzo Bertagnini

Dissertation written under the supervision of
Prof. Nuno Crispim

Dissertation submitted in partial fulfilment of requirements for the International MSc in Management, at the Universidade Católica Portuguesa, June 1, 2018.

Title: The Price of Music: How Sonic Logos influence the Willingness to Pay

Author: Lorenzo Bertagnini

ABSTRACT

Sonic logos are the acoustic equivalents of visual logos and represent a branch of the sonic branding field. As the effects of music on the listener have been explored extensively in both psychology and marketing, this dissertation applies this knowledge on sonic logos to investigate whether they can be taken advantage of in a new business perspective. This research aims to study the correlation between sonic logos and the perceived value (in terms of willingness to pay) of the brand, focusing on the mediation effect of emotional response to and personal perceptions towards the music in the sonic logo. To accomplish this objective, primary data is collected both qualitatively and quantitatively. The qualitative part is composed of in-depth interviews and the quantitative part is in form of an online survey, which includes an experimental design: respondents are randomly divided into two groups, each of which is subjected to one version of a sonic logo of a fictitious brand of coffee and is subsequently asked about their WTP, brand perceptions, emotional response to the music, and personal perceptions towards the music. Results show that sonic logos influence WTP, and that this influence is partially mediated by both emotional response to and personal perceptions towards the music in the sonic logo. Specifically, a sonic logo positively affects WTP if its music is perceived as emotional, melancholic, exciting, interesting, elegant, familiar; however, it negatively affects WTP if its music is perceived as depressing, novel, excessively noisy.

RESUMO

Os sonic logos são os acústicos equivalentes aos logotipos visuais e representam um ramo do campo do sonic branding. Como os efeitos da música no ouvinte têm sido extensivamente explorados em psicologia e marketing, esta dissertação aplica este conhecimento em sonic logos para investigar se eles podem ser aproveitados em uma nova perspectiva de negócios. Esta pesquisa visa estudar a correlação entre os sonic logos e a perceção de valor (em termos de disposição a pagar) da marca, enfocando o efeito de mediação da resposta emocional e percepções pessoais em relação à música no sonic logo. Para atingir este objetivo, os dados primários são recolhidos qualitativamente e quantitativamente. A parte qualitativa é composta de entrevistas extensivas e a parte quantitativa é em forma de uma pesquisa online, que inclui um desenho experimental: os entrevistados são divididos aleatoriamente em dois grupos, cada um dos quais é submetido a uma versão de um sonic logo de uma marca fictícia de café e, em seguida, é questionada sobre sua DDP, percepções da marca, resposta emocional à música e percepções pessoais em relação à música. Os resultados mostram que os sonic logos influenciam a DDP, e que essa influência é parcialmente mediada por respostas emocionais e percepções pessoais em relação à música no sonic logo. Especificamente, um sonic logo afeta positivamente a DDP se sua música for percebida como emocional, melancólica, excitante, interessante, elegante, familiar; no entanto, afeta negativamente a DDP se sua música for percebida como deprimente, nova, excessivamente ruidosa.

Keywords: Sonic Branding, Sonic Logo, Emotional Response to Music, Personal Perceptions towards the Music, Perceived Value, Willingness to Pay

ACKNOWLEDGEMENTS

I would like to express my gratitude to my advisor Nuno Crispim for the essential help provided throughout the dissertation and to all faculty members for their unique contribution to my academic growth during the Master.

To Simone, Francisco, Lucas and every friend who contributed in any way to the realization of this project and to the completion of my Master degree. Sorry for being so annoying.

To Carlotta, thanks to whom I did not go crazy over this thesis, and yet drives me little crazier in life.

Un ringraziamento speciale va a tutta la mia famiglia, per l'indispensabile supporto pratico e morale, senza il quale non sarei riuscito a raggiungere questo importante obiettivo.

TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

TABLE OF APPENDICES

1. INTRODUCTION

1.1 Problem Definition and Relevance

The use of sound and music in marketing has been labelled "sonic branding" (Jackson, 2003) and refers to a broad set of applications, from advertisement to in-store. The academic community has investigated various relationships between sound or music and business-related dimensions such as consumer behaviour, perceptions and attitudes. A specific and less studied area of sonic branding refers to sonic logos, which are the acoustic equivalents of visual logos. Companies have been developing sonic logos since the technology allowed so; however, their design is based mainly on intuition, rather than scientific criteria (Krishnan et al., 2012). Therefore, there is the necessity of exploring and defining objective parameters to build sonic logos judiciously, in order for brands to obtain the desired outcomes in terms of branding strategy. This study gleans knowledge from diverse academic backgrounds such as music, psychology and marketing to investigate potential criteria to be applied to sonic logos and potential effects of sonic logos on branding dimensions. After investigating existing knowledge around the topic, this study has been chosen to focus on whether and how sonic logos can influence consumers' brand perceptions and what are the potential reasons behind it. Specifically, the research will be measuring the correlation between sonic logos and perceived value of the brand. Even though previous research has suggested the significance of this correlation (Krishnan et al., 2012), this study investigates possible reasons behind it, seeking them in the emotional response to music and in the personal perceptions towards the music. By manipulating certain characteristics of the music in order to evoke different perceived emotions in the listeners (Bruner, 1990), it analyzes the correlation between the perceived emotions induced by the sonic logo and the perceived value (in terms of willingness to pay) of the brand. Moreover, it will measure how personal perceptions towards the music play a role in the correlation. In short, this research investigates the potential effect of sonic logos on brand perceptions and specifically on willingness to pay (WTP) and explores possible explanations of this phenomenon by analyzing the emotional response to the music in the sonic logo and the personal perceptions towards the music in the sonic logo as mediators in the correlation. As mentioned before, the relevance of this study is given by the need for companies to adopt sonic branding strategies, in this case regarding sonic logos, driven by objective criteria and aimed to specific strategic outcomes.

1.2 Problem Statement and Research Questions

This research aims to study the correlation between sonic logo and perceived value (in terms of willingness to pay) of the brand, focusing on the mediation effect of emotional response to and personal perceptions towards the music in the sonic logo. The following research questions help structuring the research by dividing the problem statement into specific points, each of which contributes achieving the overall objective of the research.

Research Questions (RQ):

1. Does different music applied to the sonic logo affect the perceived value (willingness to pay) of the brand?
2. Does different music applied to the sonic logo affect brand perceptions?
3. Do different perceived emotions induced by the sonic logo affect the perceived value (willingness to pay) of the brand?
4. Do personal perceptions towards the music of the sonic logo affect the perceived value (willingness to pay) of the brand?
5. Is there a mediation effect of emotional response to music between the sonic logo and the perceived value (willingness to pay) of the brand?
6. Is there a mediation effect of personal perceptions towards the music between the sonic logo and the perceived value (willingness to pay) of the brand?

1.3 Research Methods

In order to answer the research questions, this study takes into account both secondary and primary data. The secondary data collection is the gathering of information from previous research regarding the diverse areas of interest. The primary data collection is composed of two parts and two complementary approaches: a qualitative approach is implemented through in-depth interviews; a quantitative approach is implemented through the development and spread of an online survey. The in-depth interviews provide initial understandings about the correlation studied and useful insights to develop the quantitative research. The online survey gives statistical significance to the results, in order to answer the research questions. The online survey includes an experimental design: respondents are randomly divided into two groups, each of which is subjected to one version of the sonic logo of a fictitious brand of coffee and is subsequently asked about their WTP, brand perceptions, emotional response to the music, and

personal perceptions towards the music. The music in the sonic logo represents the only difference between the two groups.

1.4 Dissertation Outline

This dissertation is structured as follows. After this (1) introduction, the next chapter presents the (2) literature review, in which previous research is explored and presented in order to acquire adequate knowledge about the topic. Subsequently, the (3) methodology and data collection chapter presents a detailed description of the research conducted. The results of the research are shown and discussed in the (4) results' analysis chapter. In the end, the (5) conclusions chapter reports the main findings of the research, as well as its implications, limitations and possible directions for future research.

2. LITERATURE REVIEW

This chapter explores relevant literature regarding the main topics considered in this research. Particular attention is given to sound and music, sonic branding, sonic logos, emotional response to music and willingness to pay, gathering the theoretical and practical knowledge that is essential to move forward through the topic of interest.

2.1 Sound and Music

Sound is defined as "*Vibrations that travel through the air or another medium and can be heard when they reach a person's or animal's ear*" (Oxford Dictionaries). One specific kind of sound is music, which is defined as "*Vocal or instrumental sounds (or both) combined in such a way as to produce beauty of form, harmony, and expression of emotion*" (Oxford Dictionaries). The very definition of music underlines its ability to create in the listener a broad series of emotional responses (Fulberg, 2003), which are universally perceived (Bouhuys et al., 1995) and are not significantly impacted by individual traits such as age, gender or musical expertise (Robazza et al., 1994). Alongside the conscious interpretation of music's emotional influence, however, lies the fact that music and sound have also the ability to powerfully influence the listener on the subconscious level (Fulberg, 2003), which can impact the person's behaviour and decision-making process (for example, North et al., 1999). In short, sound and music have a great potential as means to communicate information (Kramer et al., 2010) that leads to both conscious and subconscious parts of the listener's brain. The relevance of sound and music as means for communicating has been recognized by marketers, who started to apply it to brands as soon as the technology allowed so.

2.2 Sonic Branding

The use of sound as one of the major brand elements has acquired more than one label in the research during the last decade; in this study, this phenomenon will be called "sonic branding" (Jackson, 2003), as it appears to be the most used and agreed by recent literature. Krishnan et al. (2012) describe sonic branding as the practice of strategically using sound to create auditory brand identity. In recent times, sonic branding has gained strategic relevance for brands (Graakjaer and Jantzen, 2009) as it can represent a source of advantage (or disadvantage), if managed properly (Treasure, 2011). In fact, sonic branding can help develop awareness,

association, loyalty and preference in the consumer; moreover, appropriate sound stimuli are able to produce emotional connections with the brand (Wu et al., 2010). An appropriate use of sound is not only a great opportunity for brands; it should be considered an imperative commitment since every sound produces an effect in the consumers. According to Treasure (2011), silence itself must be considered sound as it is experienced as such by consumers; moreover, the potential effect of sound may negatively affect the brand (Wu et al., 2010). For this reason, Companies must develop sonic branding strategies in order to maximize the potential effects of sound on their brands, starting from understanding which advantages it could bring and how these effects can be produced and maximized. Financially speaking, it has been proven that in-store music can affect sales. For example, loud music in a grocery store tends to increase sales per minute, compared to soft music (Smith and Curnow, 1966), and when loud music is played in bars, clients tend to consume a larger amount of beer in less time, compared with a soft background music (Guéguen et al., 2008). Another experiment conducted in a supermarket showed that slow music increases the time spent in the store, positively affecting the overall sales volume, compared to fast music (Milliman, 1982). Accordingly, a similar result has been observed in a restaurant (Milliman, 1986). Other experiments showed how in-store music can temporarily influence food tastes (Crisinel et al., 2012) and wine preference (North et al., 1999). Therefore, it is important for the company to set the desired outcome before designing a sonic branding strategy, since music's effects largely depend on the circumstance in which it is played (Bode, 2009). These examples of in-store music power might be seen as ethically doubtable as they show how music can coercively manipulate a person's behaviour (Gustafsson, 2015) and present the potential short-term results of music as environmental input.

Rather than the coercive power of music on consumers, marketers should be interested in potential long-term effects of sound and music on perceptions towards the brand, which eventually lead to financial results. Indeed, as many other brand elements, sound and music have the ability to influence the product perception (Zhu and Meyers-Levy, 2005) and the perceived quality of the brand (Lindström, 2005; Jackson, 2003), eventually leading to brand preference and loyalty (Wu et al., 2010). Even though it is reasonable to imagine that music has effects on consumers, it is not as easy to assess which are the specific variables that have the greatest impact and the best outcome since different stimuli produce different effects on brand perceptions (Wu et al., 2010). Unsurprisingly, an important aspect comes from whether the music matches the audience's preferences (Simpkins and Smith, 1974); favorable music, in

fact, can generate positive attitudes towards the brand (Sung and De Gregorio, 2008) and increase the credibility of the message's source (Simpkins and Smith, 1974). Moreover, pleasant and original music more easily grabs the attention of the audience and consequently helps the reminiscence of experiences and memories (Fraedrich and King, 1998). Accordingly, Tom (1990) states that original music has a greater effect on consumer's memory compared to existing songs or parodies. The distinctiveness of the music and its fit with the brand also play a significant role in stimulating consumer's memory and influencing consumer's attitudes towards the brand (Wu et al., 2010). Moreover, the perceived fit between the sound and the brand has the power to increase brand loyalty; the misfit, on the contrary, may negatively affect the perceived brand quality (Beverland et al., 2006). In short, these findings represent a starting point about the personal perceptions a sonic branding strategy should try to induce in consumers. The sound or music adopted should be pleasant, distinctive and fit the brand in order to positively affect overall brand perceptions. Existing literature also provides insights on how the sound stimuli should not be. External factors that moderate the consumer response to music and thus have to be taken into account include the consumer's familiarity with the music (Fontaine and Schwalm, 1979; Hilliard and Tolin, 1979; Russel, 1987), the differences in personal tastes (Gorn, 1982; Wheeler, 1985), the consumer's previous mood (Goldberg and Gorn, 1987) and the overall context in which the sound or music is listened to (Bode, 2009). There exist also factors that are in control of the company. For instance, Wu et al. (2010) demonstrate that when the sound adopted is extremely brief, noisy or it has no direct relationship with the brand, it may lead the consumer to a state of confusion about brand identity and thus negatively affect the brand image.

This paragraph gave an overall introduction to sonic branding strategic potentials, the next one considers a narrower and far less studied topic within sonic branding: the sonic logo.

2.3 Sonic Logo

A sonic logo is the acoustic equivalent of a graphic logo. The sound or music of a sonic logo can include the name of the brand, other vocal messages, both or neither of them. Even though many brands have recognized the relevance and potential of sonic logos and have developed them, there is no consistent literature on the effects of sonic logos on brand perceptions and thus their development relies mainly on intuition instead of objective and measurable parameters (Bruner, 1990; Krishnan et al., 2012). It is necessary to further assess the existence

and relevance of these parameters in order for brands to create more efficient and effective sonic logos. Krishnan et al. (2012) already proceeded towards this direction studying the effect of different number of tones in a sonic logo on the perceived value of the brand. They applied a three, six or nine-note music on a fictitious brand of bread and demonstrated that there is a non-linear relationship with the willingness to pay for the bread; the six-note sonic logo caused the willingness to pay to be significantly higher than the three and nine-note sonic logo. This case suggests that the use of music in sonic logos allows the development of objective parameters, since music is composed of a multitude of definite characteristics that can be manipulated in order to assess their individual effects on brand perceptions.

2.4 Emotional Response to Music

As already mentioned, music has the ability to induce emotional responses in the listener (Fulberg, 2003), to affect the listener's mood (Husain et al., 2002), consequently altering the listener's behaviour (Alpert and Alpert, 1990; Bruner, 1990). Furthermore, the emotional responses do not only occur on a cognitive level but also on the physical one (Husain et al., 2002), as happy music reduces the depth of breathing and sad music reduces the heart rate (Krumhansl, 1997). Neuroscientific experiments show that emotional music stimulates the same brain areas that are stimulated by sex, food and drugs (Blood and Zatorre, 2001; Menon and Levitin, 2005), emphasizing the intensity of the emotional arousal. Since music produces such a strong emotional response that may lead to certain brand perceptions and behaviour, it is crucial for companies to understand how to manage the emotional response linked to the sonic logo by analyzing which characteristic of music affect consumers the most. Even in this case, personal perceptions towards the music affect the outcome; for example, the emotional response is higher when the listener finds the music more interesting (Lewis et al., 2012). However, there are some relatively objective effects produced by certain technical characteristics of music (Bruner, 1990) that can be used to drive the emotion towards a certain direction. The effects of technical characteristics of music on listener's emotional state can be divided into time, pitch and texture related findings (Bruner, 1990). Time-related findings overall conclusion is that fast music generally evokes happier and more pleasant emotions than slow music (Scherer and Oshinsky, 1977; Swanswick, 1973) and in general, fast tempo music causes more arousal in the listener than slow tempo music (Husain et al., 2002). Specifically, slow music arouses calm, sentimental and ceremonious feelings, whereas fast music induces more exciting and joyful emotions (Hevner, 1937). In terms of rhythm, Hevner (1936) states

that firm rhythms are perceived as more serious and solemn and smooth rhythms as more happy, amusing and visionary. Finally, staccato notes are perceived as more energetic, compared with legato notes, which give more gentle and peaceful impressions (Wedin, 1972). Pitch-related findings suggest a significant relationship between pitch and perceived happiness: high-pitch music is perceived as happier and more exhilarating than low-pitch music, which is usually considered sadder (Bruner, 1990). In terms of mode, major mode evokes happier and more playful feelings than minor mode (Scherer and Oshinsky, 1977; Husain et al., 2002). The harmony of the music also plays a role, with consonant harmony inducing serenity and happiness and dissonant harmony sadness and agitation (Bruner, 1990). Texture-related findings suggest that different instruments and different volumes of the music induce different emotions in the listener (Bruner, 1990). Overall, technical characteristics that induce in the listener the emotions of happiness and sadness can be seen as opposite to each other in terms of mode, tempo, pitch, rhythm, harmony and volume: happiness is more likely to be evoked by major mode, fast tempo, high pitch, flowing rhythm, consonant harmony and medium volume; on the contrary, sadness is more easily evoked by minor mode, slow tempo, low pitch, firm rhythm, dissonant harmony and soft volume (Bruner, 1990). Other combinations of them may induce different emotional responses (Table 1).

Table 1: Music Technical characteristics for inducing emotional response (Bruner, 1990)

Musical element	Emotional response								
	Serious	Sad	Sentimental	Serene	Humorous	Happy	Exciting	Majestic	Frightening
Mode	Major	Minor	Minor	Major	Major	Major	Major	Major	Minor
Tempo	Slow	Slow	Slow	Slow	Fast	Fast	Fast	Medium	Slow
Pitch	Low	Low	Medium	Medium	High	High	Medium	Medium	Low
Rhythm	Firm	Firm	Flowing	Flowing	Flowing	Flowing	Uneven	Firm	Uneven
Harmony	Consonant	Dissonant	Consonant	Consonant	Consonant	Consonant	Dissonant	Dissonant	Dissonant
Volume	Medium	Soft	Soft	Soft	Medium	Medium	Loud	Loud	Veried

An important factor of emotional response to music is the difference between felt and perceived emotion. In fact, emotional response to a music stimulus usually refers to the perception of the empathetic representation of the music rather than the actual feeling of that emotion (Zentner et al., 2008). In other words, music does not make the listener experience the emotion directly, but rather imparts the emotion that is perceived but not necessarily felt by the listener. This is why sad music can still originate positive perceptions (Kallinen and Ravaja, 2006) and,

therefore, should not be excluded a priori when designing a sonic logo, since it may still positively affect brand perceptions.

This section has presented existing knowledge that provides insights to be used when designing a sonic logo capable of inducing a certain emotional response in the consumer. The next session introduces the dependent variable in the correlation, which is the perceived value of the brand in terms of willingness to pay.

2.5 Willingness to Pay and Perceive Value

The Willingness to pay (WTP) is the maximum amount of money that an individual is disposed to spend for a certain product or service. Many studies have considered WTP as the dependent variable and demonstrated that external stimuli are able to induce variations to it (Brooker and Eastwood, 1989; Feinberg, 1986; Krishnan et al., 2012).

There exist many ways to assess consumers' WTP, among which direct surveying seems the less appropriate in terms of reliability (Breidert et al., 2006). On a practical perspective, directly asking for WTP presents many weaknesses that can mislead the company's pricing strategy (Nagle and Holden, 2002). However, the WTP can also be used theoretically to assess the perceived value of a product or a brand in monetary terms (Le Gall-Ely, 2009; Krishnan et al., 2012). Moreover, this research requires a relative rather than an absolute value; therefore, the actual monetary value is not as relevant as the different perceived value resulting from different independent stimuli. In order to assess the relative perceived value of a fictitious brand, Krishnan et al. (2012) suggest to use a benchmark price range, which indicates the minimum and the maximum at which existing brands are priced and to ask at which price the respondent thinks the fictitious brand is sold after receiving a specific stimulus about the brand.

2.6 Sonic Logo and Willingness to Pay

Little literature has investigated the effects of consumer's emotional response to music on willingness to pay and brand perceptions, and none of them considers the sonic logo as the source of the music. Some studies on advertising found that sad music induces higher purchase intention than happy music (Alpert and Alpert, 1986, 1989), while a recent research on online bidding concluded that happiness positively affects willingness to pay (Yuan and Dennis, 2014). Given the scarcity and disagreement of existing knowledge, there is no obvious or highly

expected correlation between perceived emotion led by sonic logos and willingness to pay. If any correlation exists, it is plausible to be found by contraposing opposite emotions (such as "happiness" and "sadness") that can be aroused by different music stimuli. Regarding the perception of emotional response in the listener, the above-mentioned findings (Bruner, 1990) allow the development of experimental sonic logos characterized by specific technical music features that should lead the emotional response towards the intended direction. Personal perceptions towards the music, such as pleasantness, distinctiveness, fit with the brand and interest previously explored must also be considered since their potential effects on the consumer's brand perceptions. Moreover, In order to avoid as many biases as possible in the responses, the experimental sonic logo should be referring to a non-familiar or fictitious brand (Krishnan et al., 2012). Literature also suggests that the effect of music on brand perceptions is stronger for highly affective or low involvement products, compared with high cognitive involvement products (Bruner, 1990). Therefore, the emotional response should be stronger for a brand that fits this description.

3. METHODOLOGY AND DATA COLLECTION

This chapter describes in detail the research methodology employed in this study for acquiring primary data and thus answering the research questions.

The research methodology chosen for this study is composed of two parts and two different and complementary approaches. A qualitative approach is implemented for conducting in-depth interviews. A quantitative approach is implemented through the development and spread of an online survey. There are many reasons why the primary data collection has been conducted with the above-mentioned approaches. The most relevant one is the reliability and relevance of the results. Conducting a qualitative research before a quantitative one has many advantages in this respect. In fact, the qualitative approach allows to first acquire specific insights that help develop the quantitative part more accurately. Subsequently, the quantitative research can test these insights on a bigger sample, giving the results a statistical significance. Another important aspect is the reduction of cognitive biases in the questions formulation and data collection. Many biases might influence the researcher and the respondents during the whole process. It is important for the researcher to be aware of them and try to avoid or minimize their effects on the study. By conducting a qualitative data collection before the quantitative one, it is possible to minimize, for example, the confirmation bias (Nickerson, 1998) and the expectation bias (Jeng, 2006), which might influence the formulation of the questions in the survey. In-depth interviews also help reduce the availability bias (Tversky and Kahneman, 1973) and the hot-cold empathy gap (Loewenstein, 2000) in respondents by digging beyond first instinctive answers, which in a topic related to emotions and their effect on brand perceptions are likely to be affected by rational and conscious reasoning rather than subconscious considerations. Therefore, the qualitative research helps understand how to design the survey so that the answers are not driven by rationality but partly by subconscious factors such as the emotional response to music stimuli. In other words, interviewees' answers to certain questions provide an important contribution on how to design the quantitative research in order to get to the subconscious part of the respondents' brain when answering the survey. This chapter will focus in detail on the methodology adopted in each part.

3.1 Qualitative Research Methodology and Structure

Regarding the qualitative research, individual interviews were preferred to focus groups. Interviews allow exploring the topic deeper and individually, thus avoiding groupthink and

mutual influence among participants, other than overall superficial answers (Aaker et al., 2016). Moreover, interviews were chosen because of the nature of the topic: in order to acquire relevant insights concerning mainly subconscious behaviours, the researcher developed a structured list of open-ended questions to be used as guidelines with case-specific following directions depending on individual answers. The role of the interviewer was defined as professional and sociable, to ensure a friendly environment and a comfortable situation for the interviewees, who would be at ease with sharing their thoughts.

Eight in-depth individual interviews were conducted either face-to-face or through video chat. Each interview lasted approximately 45 minutes. Five participants are females and three are males, the age range is 23-26, and the nationality is mostly Italian apart from one Dutch. Respondents are either master students or workers recently graduated. The field of expertise is heterogeneous, ranging from Economics to Medicine, from Engineering to Architecture. No one of the respondents has a marketing, psychology or brand management background. The Italian respondents were interviewed in Italian, in order for them to focus on the content rather than the form and to express their thoughts fully and comfortably with no language barriers.

All the interviews began with a short introduction regarding the purpose of their participation, which would remain confidential and anonymous. Even though each interview was subjected to a certain degree of personalization and subjectivity, the guidelines adopted can be categorized as follows. The interviews were conducted to explore in detail (1) how the respondents' mood influences their purchase decision-making and for which product categories; (2) how their mood influences their spending habits and the perceived value of products and brands; (3) their attitudes towards music and music's emotional power; (4) their attitudes towards sonic logos and the emotional music in them; (5) their brand perceptions depending on sonic logos (Appendix 1).

3.2 Quantitative Research

The existing literature and the qualitative research allowed the development of the quantitative part of the research, which was conducted in the form of an online survey. This choice was made for many reasons. Online surveys require a suitable amount of resources and provide quick information from hard-to-reach respondents; on the other side, online surveys increase potential sample errors and restrict the control of the researcher over the response process (Aaker et al., 2016).

The online survey was developed through the software Qualtrics and spread through social media and emails to reach an appropriate number of respondents. Since the sample was expected to be mainly composed of Italians, the survey was developed in two versions: the first version in English and the second one in Italian. Pre-tests were conducted to assure that the meaning of the words was the same for both languages. Moreover, the order of the questions was chosen to minimize the effect of previous questions on following ones: this choice is due to the subconscious nature of the relationships explored in this research.

3.2.1 Sampling Technique

For this study, a mix of non-probability sampling techniques was adopted. To obtain a proper amount of respondent, a convenience sampling technique was implemented alongside a snowball sampling technique. Advantages of this choice include the simplicity of data collection and time and cost efficiency. Adopting non-probability techniques, however, presents many disadvantages, among which the high risk of selection bias and sampling errors and the consequent low reliability of the results (Saunders, 2011).

3.2.2 Methodology and Structure

The survey is composed of several sections. The questionnaire begins with a short (1) introduction, immediately followed by the (2) experiment on sonic logos and WTP; afterwards, there are the sections regarding (3) purchase intention and brand perceptions, (4) involvement with the product category, (5) emotional response to music, (6) personal perceptions towards the music, (7) demographics and answers reliability. In the experiment, respondents are randomly divided into two groups, each of which is subjected to a different stimulus. The stimulus is a sonic logo of a fictitious brand of coffee composed of visual and sonic components; the sonic component represents the only difference between the two groups. The rest of the questionnaire remains the same for both groups, which are asked several questions about the fictitious brand of coffee and the music they heard in the sonic logo. Every section was developed with the intent of exploring potential reasons for the experiment's results. Each section is discussed in detail in the next paragraphs and the complete version of the survey can be consulted in appendix 2.

(1) Introduction

The introductive part briefly states the reason for the survey, its expected duration and ensures the confidentiality and anonymity regarding the respondent's answers. Finally, it expresses gratitude for responding it.

(2) Experiment on Sonic Logos and WTP

The experiment was designed considering the one conducted by Krishnan et al. (2012) to assess different willingness to pay depending on the number of tones played in a sonic logo. For this study, the researcher developed a brand new 15-second animated logo for a fictitious brand of coffee called MOOD and two different versions of the music played in it. The product category (coffee) was chosen based on the qualitative findings. Considering the effects of specific music characteristics on emotional response explored by Bruner (1990) presented in the previous chapter (Table 1), the two music stimuli were chosen with the intent of evoking the emotions of happiness and sadness in the two groups of respondents. Respondents are randomly shown one of the two versions of MOOD's sonic logo. Subsequently, they read the following text:

"*Brands of coffee cost between 2 € and 5 € for a 250g coffee powder package.*
2,00 € for private labels (supermarkets' brands like Pingo Doçe, Carrefour).
3,50 € for brands like Lavazza Qualità Rossa, Delta Lote Chavena.
5,00 € for premium coffee brands (Lavazza Qualità Oro, Delta Platinum)
Please indicate what you think is the price of MOOD's 250g package of coffee powder based on the video you have watched."

Respondents are given the prices of well-known brands of coffee and a continuous 2-to-5 € price range bar on which answer the question. In this case, the WTP represents the perceived price at which respondents think the fictitious brand is sold, and therefore the perceived monetary value of MOOD's coffee (Krishnan et al., 2012). Even if this section represents the experiment in the strict sense, respondents answer all the following sections of the survey after it, making the whole questionnaire an experiment, in which the only difference between the two experimental groups is the music in the sonic logo.

(3) Purchase Intention and Brand Perceptions

After asking the perceived monetary value of the fictitious brand, respondents are asked the purchase intention for the brand given the price they selected in the experiment. This question adopts the third-person effect (Paul et al., 2000) by referring to the average person's purchase

intention rather than the respondent's. It is to be answered on a 1-to-5 single-item non-comparative ordinal scale from "*absolutely not*" to "*absolutely yes*".

Regarding brand perceptions, a 5-point ordinal semantic-differential scale is implemented contraposing ten pairs of descriptive terms regarding the perceived brand personality and overall brand perceptions of the fictitious brand of coffee. The bipolar question was developed taking into account Aaker's (1997) brand personality scale, which was adapted to the qualitative findings and to the specific purpose of this study.

(4) Involvement with the Product Category

The fictitious brand developed for the experiment is a brand of coffee because of the insights provided by the literature and the qualitative research. In fact, coffee is supposed to be a low-involvement product for which mood might have a minor effect on the purchase decision-making process. Since the involvement with the product category might influence the experiment's results, this question is intended to measure it by adopting a 5-point Likert scale requesting respondents to indicate their level of agreement with ten statements about the product category of interest. This section aims to measure the overall agreement on price quality heuristics, habituality, essentiality, choice ease and speed, and mood dependence regarding decision-making. Once again, the third-person effect (Paul et al., 2000) was adopted, asking the level of agreement about people's attitudes towards coffee rather than their own.

(5) Emotional Response to Music

At the beginning of this section, the same version of the sonic logo is shown again and respondents are told to pay specific attention to the music in it. This section, in fact, aims to measure the emotional response to the music played in the sonic logo. Respondents watch the sonic logo according to the previous randomization so that every respondent is always exposed to only one version of the sonic logo. Using a 5-point Likert scale, respondents are asked to indicate their level of agreement, from "*strongly disagree*" to "*strongly agree*", with ten statements meant to measure different characteristics regarding the emotional response to the music. These characteristics include the intensity of the emotional arousal provoked by the music, the valence of the emotion, both of which were found to be relevant variables by the in-depth interviews, and the difference between perceived and felt emotions in response to the music. Since the technical characteristic of the two music stimuli are supposed to evoke happiness and sadness, the valence of the emotional response is measured by three categories

for positive emotions ("*happy*", "*joyful*", "*exciting*") and three categories for negative emotions ("*melancholic*", "*sad*", "*depressing*").

(6) Personal Perceptions towards the Music

This section is also preceded by the same sonic logo because it is meant to measure the personal perceptions towards the music in it. The literature provides many relationships between certain perceptions towards the music and brand perceptions; moreover, the qualitative research provided some additional insights in this sense. It is therefore important to test them in this specific case since they might influence the experiment's results. Personal perceptions towards the music present in the literature such as pleasantness, distinctiveness, interest, novelty, familiarity, as well as the fit of the music with a brand of coffee come up besides personal perceptions that the qualitative research suggested to be significant such as elegance, fit of the music with the video and with the respondent's current mood. All of them are measured with a 5-point Likert scale on fourteen statements to which respondents are asked to indicate their level of agreement.

(7) Demographics and Answers Reliability

The last section of the survey includes questions regarding respondents' demographics, such as gender, age, nationality, country of residence and occupation. Moreover, the last question asks whether the respondent has paid attention to the questions, has answered them honestly, and therefore whether his or her responses should be included in the research. In other words, it questions the reliability of the respondent's answers throughout the survey. This question is particularly important since the survey requires the participants to make an effort in following the instructions regarding the proper interaction with the sonic logo, and allows the researcher to exclude the negative answers from the study.

3.3 Data Analysis

The responses of the online survey are analyzed and the results are shown in the following chapter. The statistical software IBM SPSS is adopted to analyze the responses by running various statistical tests, depending on the nature of the variables and the purpose of this study. After the data preparation process, the Cronbach's alpha is measured to test the scale reliability of the scales related to brand perceptions, emotional response to music and personal perceptions towards the music (Peterson, 1994). Regarding the involvement with the product category and

demographics, tests of frequency are performed. In order to assess whether the different music in the sonic logo affects the rest of the responses according to the experiment, a series of independent samples t-tests are conducted: the two groups tested are the randomized groups of the experiment and the variables studied are respectively the WTP, purchase intention, brand perceptions, emotional response to music and personal perceptions towards the music. To evaluate how the WTP is influenced by brand perceptions, emotional response to music and personal perceptions towards the music respectively, three independent linear regression models are conducted, alongside an overall linear regression model including all the scales. Moreover, a paired samples t-test is conducted to infer the difference between perceived and felt emotions evoked by the music. Finally, in order to measure the mediation effect of emotional response to music and personal perceptions towards the music on the relationship between the sonic logo and the WTP, an additional tool is adopted. PROCESS v3.0 by Andrew F. Hayes is an analytical tool for IBM SPSS (www.processmacro.org), which model 4 allows measuring the mediation effect of interest by running a bootstrap analysis (Hayes, 2017).

4. RESULTS' ANALYSIS

This chapter presents the main findings from the qualitative research alongside the statistical analysis conducted on quantitative primary data, with the purpose of answering the research questions.

4.1 Qualitative Main Findings

This part summarizes the relevant findings and insights from the interviews that were taken into account to design the quantitative research.

During the introductive section, respondents were asked what they perceive to be low-involvement products, for which brand perceptions are more likely to be influenced by music (Bruner, 1990). Food and beverage, and specifically "supermarket goods", resulted to be the most agreed industry among participants. Within food and beverage, respondents stated that their mood has a greater impact on their purchase choices for non-necessary goods (snacks, sweets and alcoholic drinks) compared with the majority of habitual and basic goods (water, fruit, vegetables, salt, sugar, milk and bread). For some products, instead, respondents were in doubt whether the mood could influence their decisions, which might depend on the specific situation (pasta, meat and coffee). Therefore, the fictitious brand designed for the survey was chosen to be a brand of coffee.

Respondents' mood can influence their spending habits and perceived value of brands depending on product category, specific occasion and intensity of the emotional state. However, there is no unanimous agreement on whether it is happiness or sadness to be more influent and to increase the spending and the WTP: positive moods make the shopping experience more pleasant and increase the willingness to buy, while negative moods create a need for reward to be satisfied with expensive products.

"When I am happy I buy more things but I am more price sensitive; when I am sad I buy less but I care less about prices"

Angela, interviewee

This is in line with previous research's contrasting findings and uncertainty about how emotions and moods influence WTP (Yuan and Dennis, 2016; Alpert and Alpert, 1986), and underlines the importance of analyzing the two opposite emotions (happiness and sadness) in the experiment.

According to respondents, music has an impact on mood, but mood has an even stronger impact on the music chosen to be heard. This underlines the importance of the emotional context in which the music is heard, since the effect of music is mainly to reinforce the emotions already present in the listener. Specifically, music that communicates positive emotions seems to have a stronger impact than music communicating negative emotions; however, sad music does no induce only negative feelings. This finding seems to suggest that "happy" music might induce a stronger emotional arousal than "sad" music. Therefore, there is the need to statistically measure the intensity of such emotional arousal in response to the sonic logo, since it might play a role in the correlation studied.

It appears, according with the literature, that personal perceptions towards the music adopted in sonic branding, and specifically in sonic logos, can influence brand perceptions in many ways. The most important attribute seems to be the fit of the music with the brand, followed by pleasantness and distinctiveness.

"Pleasant music that fits the brand is for me sign of higher quality and price, while I associate distinctive and interesting music with more innovative brands"

Simone, interviewee

On the contrary, respondents agree that unpleasant music would negatively influence their perception of the brand. Some respondents suggest that these characteristics may influence the perceived quality of the brand and help make the brand memorable, but the majority states that the perceived quality would not change depending on the music.

"Music does not influence my perceptions towards the brand in terms of price and quality"

Chiara, interviewee

Regarding personal perceptions towards the music, the interviews provide insights about the potential effect of not only previously discussed but also novel personal perceptions towards the music on the correlation. The survey analyzes all the personal perceptions found to be relevant by the interviews and by previous literature: whether the music is pleasant, distinctive, interesting, novel, easy to recognize, familiar, elegant, grabs the attention, causes surprise, fits the video, the brand and the respondent's current mood, and whether it is too noisy. The statistical analysis will show which are statistically relevant in the correlation between sonic logos and WTP.

The potential effect of emotional music on brand perceptions depends on the product category and the fit of the music with the visual logo. In general, happy music is suggested to fit with a cheap and unhealthy brand of food, while sad music with a more expensive, prestigious and healthy brand.

"I associate happy music with cheap and unhealthier brands of food while I associate sad or serious music with healthier or more expensive and premium brands of food."

Dafne, interviewee

These insights underline the importance of statistically measure the relationship between sonic logos and brand perceptions, since brand perceptions seem to be influenced by the emotional response to music related to a certain product or brand. The survey includes a section regarding brand perceptions of the fictitious brand of coffee in order to assess whether they are directly influenced by the sonic logo.

Other than practical insights regarding specific questions of the survey, the qualitative research provided conceptual insights about its structure. In fact, the design of the survey should allow investigating the subconscious correlation under research; therefore, the order of the questions must be designed so that the answers are not driven by rationality but partly by subconscious factors such as the emotional response to music stimuli. In other words, interviewees' answers were essential for the structure and design of each section and the overall sections' sequence, in order to get to the subconscious part of the respondents' brain when answering the survey.

4.2 Quantitative Results' Analysis

4.2.1 Sample Characterization

The survey obtained 392 responses, 68 of which were discarded due to incompletion or unreliability, leading to the final sample of 324 valid responses. Respondents are mainly females (65.1%); the age is reasonably distributed, the majority of respondents being between 18 and 34 years old (58%). 92% of the sample is Italian, and the 82.7% currently lives in Italy. Finally, the majority is employed (50.6%), followed by students and working students (34.3% cumulatively). (Appendix 3)

4.2.2 Scale Reliability

In order to assess the internal consistency and reliability of the scales adopted in the survey, the Cronbach's Alpha is measured (Peterson, 1994) for the following multi-item scales: the 10-item brand perceptions scale ($\alpha = .818$); the 14-item personal perceptions towards the music scale ($\alpha = .837$); and two 6-item emotional response to music sub-scales, one for positive emotions ($\alpha = .801$) and one for negative emotions ($\alpha = .755$). The scale reliability is defined to be acceptable for a Cronbach's Alpha higher than .70 (Aaker et al., 2016). In this case, all the scales present an acceptable Cronbach's Alpha, evidencing internal consistency and reliability. (Appendix 4)

4.2.3 Product Category Involvement

Frequencies regarding the product category involvement indicate overall tendencies about people's attitudes towards coffee. The dimension with the highest mean is habituality ($M = 4.16, SD = .71$), which is agreed or strongly agreed by 90.2% of respondents, while the lowest is mood dependence ($M = 2.12, SD = .84$), which is disagreed or strongly disagreed by 74.4% of respondents. The items regarding price and quality relationship show how people tend to adopt such heuristics when evaluating coffee brands. Even though respondents tend to evaluate the product category highly in terms of involvement ($M = 3.53, SD = .76$), they also report high agreement with the essentiality of coffee (*"Coffee is an essential good": $M = 3.15, SD = 1.25$; "People always have coffee at home": $M = 4.10, SD = .81$*). (Appendix 5)

4.2.4 Effect of Music

In the next paragraphs, the effect of music on different variables is tested through a series of independent samples t-tests. Specifically, this part aims to observe whether the different music stimuli implemented in the experiment have an impact on the mean of the following variables: WTP, purchase intention, brand perceptions, emotional response to music, personal perceptions towards the music. The experimental randomization divided the respondents in almost equal groups, each of which was subjected to only one version of the sonic logo. The logos will be referred as "Sonic logo 1" (for the "happy" version) and "Sonic logo 2" (for the "sad" version). Respectively, Group 1 is composed of 165 respondents and Group 2 of 159.

4.2.4.1 Effect of Music on WTP

Concerning the direct relationship between different music in the sonic logo and WTP (RQ1), the independent samples t-test shows that there is a significant difference between the two groups. In fact, the WTP is significantly higher for respondents who are shown the Sonic logo 2 (*M = 3.58, SD = .64*), compared to respondents who are shown the Sonic logo 1 (*M = 3.25, SD = .62), t (322) = -4.58, p < .001.* (Appendix 6)

4.2.4.2 Effect of Music on Purchase Intention

Regarding the effect of the music on purchase intention, the independent samples t-test indicates that Group 1 has a significantly higher purchase intention *(M = 3.53, SD = .63)*, compared to Group 2 *(M = 3.36, SD = .72), t (322) = 2.32, p < .05.* (Appendix 7)

4.2.4.3 Effect of Music on Brand Perceptions

This section assesses the relationship between the music in the sonic logo and each item of the brand perceptions bipolar scale (RQ2). The independent samples t-test shows that some items are significantly different between groups, while others are not (Table 2). The items for which there is no significant difference depending on the music are "*Uninteresting to interesting*", "*Unhealthy to healthy*", "U*nreliable to reliable*", "*Traditional to modern*" and "*Unattractive to attractive*". On the contrary, Group 1 has significantly higher values than Group 2 for "*Serious to funny*" ($M_{Group\ 1}$ *= 3.37, SD = 1.00;* $M_{Group\ 2}$ *= 2.77, SD = 1.09; t (322) = 5.16, p < .001*); while Group 2 has significantly higher values than Group 1 for "*Modest to prestigious*" ($M_{Group\ 1}$ *= 2.92, SD = .95;* $M_{Group\ 2}$ *= 3.19, SD = .99; t (322) = -2.54, p < .05*), "C*ommon to uncommon*" ($M_{Group\ 1}$ *= 3.04, SD = 1.12;* $M_{Group\ 2}$ *= 3.30, SD = 1.04; t (322) = -2.22, p < .05)*,"C*heap to expensive*" ($M_{Group\ 1}$ *= 2.74, SD = .92;* $M_{Group\ 2}$ *= 3.15, SD = .97; t (322) = -3.92, p < .001*), "*Low quality to high quality*" ($M_{Group\ 1}$ *= 3.24, SD = .85;* $M_{Group\ 2}$ *= 3.45, SD = .85; t (322) = -2.17, p < .05*). (Appendix 8)

Table 2: Significant between-groups differences in brand perceptions

Item	Significant	Higher mean	
Uninteresting to Interesting	✗	-	-
Modest to Prestigious	✓		Sonic logo **2**
Common to Uncommon	✓		Sonic logo **2**
Serious to Funny	✓	Sonic logo **1**	
Unhealthy to Healthy	✗	-	-
Cheap to Expensive	✓		Sonic logo **2**
Low quality to High quality	✓		Sonic logo **2**
Unreliable to Reliable	✗	-	-
Traditional to Modern	✗	-	-
Unattractive to Attractive	✗	-	-

4.2.4.4 Effect of Music on Emotional Response to Music

Since the music stimuli were selected with the intent of evoking in the listener specific emotions, this section is to be considered a manipulation check. Results show that the mean of each item included in the emotional response scale is significantly different depending on the sonic logo (Table 3). Group 1 shows significantly higher values regarding the positive emotions items such as "*The music is happy*" ($M_{Group\ 1}$ *= 4.05, SD = .72;* $M_{Group\ 2}$ *= 2.28, SD = .89; t (322) = 19.59, p < .001*), "*The music is joyful*" ($M_{Group\ 1}$ *= 4.12, SD = .68;* $M_{Group\ 2}$ *= 2.14, SD = .85; t (322) = 23.17, p < .001*), "*The music is exciting*" ($M_{Group\ 1}$ *= 2.76, SD = .95;* $M_{Group\ 2}$ *= 2.11, SD = .78; t (322) = 6.66, p < .001)* and "*The music makes me feel happy*" ($M_{Group\ 1}$ *= 3.49, SD = .96;* $M_{Group\ 2}$ *= 2.32, SD = .92; t (322) = 11.21, p < .001*). Accordingly, Group 2 presents significantly higher values for the negative emotions items such as "*The music is melancholic*" ($M_{Group\ 1}$ *= 1.67, SD = .73;* $M_{Group\ 2}$ *= 3.92, SD = .87; t (322) = -25.37, p < .001*), "*The music is sad*" ($M_{Group\ 1}$ *= 1.50, SD = .67;* $M_{Group\ 2}$ *= 3.36, SD = 1.01; t (322) = -19.57, p < .001*), "*The music is depressing*" ($M_{Group\ 1}$ *= 1.56, SD = .75;* $M_{Group\ 2}$ *= 2.61, SD = 1.07; t (322) = -10.30, p < .001*) and "*The music makes me feel sad*" ($M_{Group\ 1}$ *= 1.78, SD = .80;* $M_{Group\ 2}$ *= 2.94, SD = 1.05; t (322) = -11.28, p < .001*). The item regarding the intensity of the emotional arousal is significantly higher for Group 2 ($M_{Group\ 1}$ *= 3.63, SD = .89;* $M_{Group\ 2}$ *= 3.63, SD = .78; t (322) = -3.99, p < .001*), while the item regarding the understanding of the emotion communicated by the music is significantly higher for Group 1 ($M_{Group\ 1}$ *= 3.64, SD = .83;* $M_{Group\ 2}$ *= 3.42, SD = .86; t (322) = 2.29, p < .05*). (Appendix 9)

Table 3: Significant between-groups differences in emotional response to music

Item	Significant	Higher mean	
The music is emotional	✓		Sonic logo **2**
The music is happy	✓	Sonic logo **1**	
The music is joyful	✓	Sonic logo **1**	
The music is exciting	✓	Sonic logo **1**	
The music is melancholic	✓		Sonic logo **2**
The music is sad	✓		Sonic logo **2**
The music is depressing	✓		Sonic logo **2**
I understand the emotion communicated by the music	✓	Sonic logo **1**	
The music makes me feel happy	✓	Sonic logo **1**	
The music makes me feel sad	✓		Sonic logo **2**

4.2.4.5 Effect of Music on Personal Perceptions towards the Music

In terms of personal perceptions towards the music, the majority of items are not significantly different between the two groups (Table 4). However, Group 1 presents significantly higher values for recognizability ($M_{Group\ 1}$ *= 3.64, SD = .86;* $M_{Group\ 2}$ *= 3.04, SD = 1.04; t (322) = 5.68,* $p < .001$), fit with the video ($M_{Group\ 1}$ *= 3.28, SD = .99;* $M_{Group\ 2}$ *= 3.03, SD = 1.14; t (322) = 2.08,* $p < .05$), fit with a brand of coffee ($M_{Group\ 1}$ *= 2.98, SD = .93;* $M_{Group\ 2}$ *= 2.74, SD = 1.07; t (322) = 2.16,* $p < .05$), and excessive noise ($M_{Group\ 1}$ *= 2.51, SD = 1.01;* $M_{Group\ 2}$ *= 1.59, SD = .60; t (322) = 9.91,* $p < .001$). Instead, Group 2 has significantly higher values regarding interest ($M_{Group\ 1}$ *= 2.80, SD = .95;* $M_{Group\ 2}$ *= 3.16, SD = 1.02; t (322) = -3.28,* $p < .05$) and elegance ($M_{Group\ 1}$ *= 2.24, SD = .91;* $M_{Group\ 2}$ *= 3.65, SD = .89; t (322) = -14.18,* $p < .001$). (Appendix 10)

Table 4: Significant between-groups differences in personal perceptions towards the music

Item	Significant	Higher mean	
I like the music	✗	-	-
The music is pleasant	✗	-	-
The music is distinctive	✗	-	-
The music is interesting	✓		Sonic logo **2**
The music is novel/original	✗	-	-
The music is easy to recognize	✓	Sonic logo **1**	
The music grabs my attention	✗	-	-
The music causes surprise	✗	-	-
The music sounds familiar to me	✗	-	-
The music fits the video	✓	Sonic logo **1**	
The music fits a brand of coffee	✓	Sonic logo **1**	
The music fits my current mood	✗	-	-
The music is too noisy	✓	Sonic logo **1**	
The music is refined/elegant	✓		Sonic logo **2**

4.2.5 Effect of Brand Perceptions on WTP

To understand which characteristics of brand perceptions affects the WTP, a linear regression model is calculated through stepwise method: the items of the brand perceptions scale are considered the independent variables to predict the respondents' WTP. A significant regression is found ($F\ (4,319) = 53.65,\ p < .001,\ R^2 = .402$) for the bipolar variables "*Cheap to expensive*", "*Modest to prestigious*", "*Low quality to high quality*" and "*Unhealthy to healthy*". Therefore, the predicted WTP is equal to *1.969 + .259 (Expensive) + .142 (Prestigious) + .162 (High quality) – .084 (Healthy)*. Unsurprisingly, the first three variables are positively correlated with the WTP. Surprisingly, instead, the fourth variable is negatively correlated with the independent variable. (Appendix 11)

4.2.6 Effect of Emotional Response to Music on WTP

In order to predict the WTP depending on the emotional response to the music (RQ3), a linear regression is calculated through stepwise method, in which the independent variables are the items included in the emotional response to music scale. A significant regression is found ($F\ (3,320) = 15.67,\ p < .001,\ R^2 = .128$) for the following items: "*The music is melancholic*", "*The music is depressing*" and "*The music is exciting*". According to this model, participants' predicted WTP is equal to *2.924 + .215 (Melancholic) - .171 (Depressing) + .100 (Exciting)*. Therefore, there is a positive correlation between perceived melancholic and exciting music

and WTP alongside a negative correlation between perceived depressing music and WTP. All the other items included in the emotional response scale have no significant direct effect on WTP. (Appendix 12)

4.2.6.1 Perceived and Felt Emotions

The difference between perceived and felt emotions in response to music is explored with a paired samples t-test. The test is conducted for two pairs of variables: emotional perception is paired respectively with the values regarding felt happiness and felt sadness. Results show significant difference between perceived emotion ($M = 3.53, SD = .85$) and both felt happiness ($M = 2.92, SD = 1.11), t (323) = 9.95, p < .001$; and felt sadness ($M = 2.35, SD = 1.10), t (323) = 14.58, p < .001$. It is interesting to point that the difference is larger for felt sadness compared to felt happiness. (Appendix 13)

4.2.7 Effect of Personal Perceptions towards the Music on WTP

Another linear regression is calculated through stepwise method to address the effect of personal perceptions towards the music on WTP (RQ4). Out of the fourteen items included in the personal perceptions scale, only two are statistically significant in predicting the WTP: "*The music is refined/elegant*" and "*The music is interesting*". The regression model is significant ($F (2,321) = 21.07, p < .001, R^2 = .116$) and accordingly, the predicted WTP is equal to *2.716 + .142 (Refined/Elegant) + .094 (Interesting)*. These two variables have a positive effect on WTP, while all the other items regarding personal perceptions towards the music have no significant effect in predicting the WTP. (Appendix 14)

4.2.8 Overall Effect on WTP

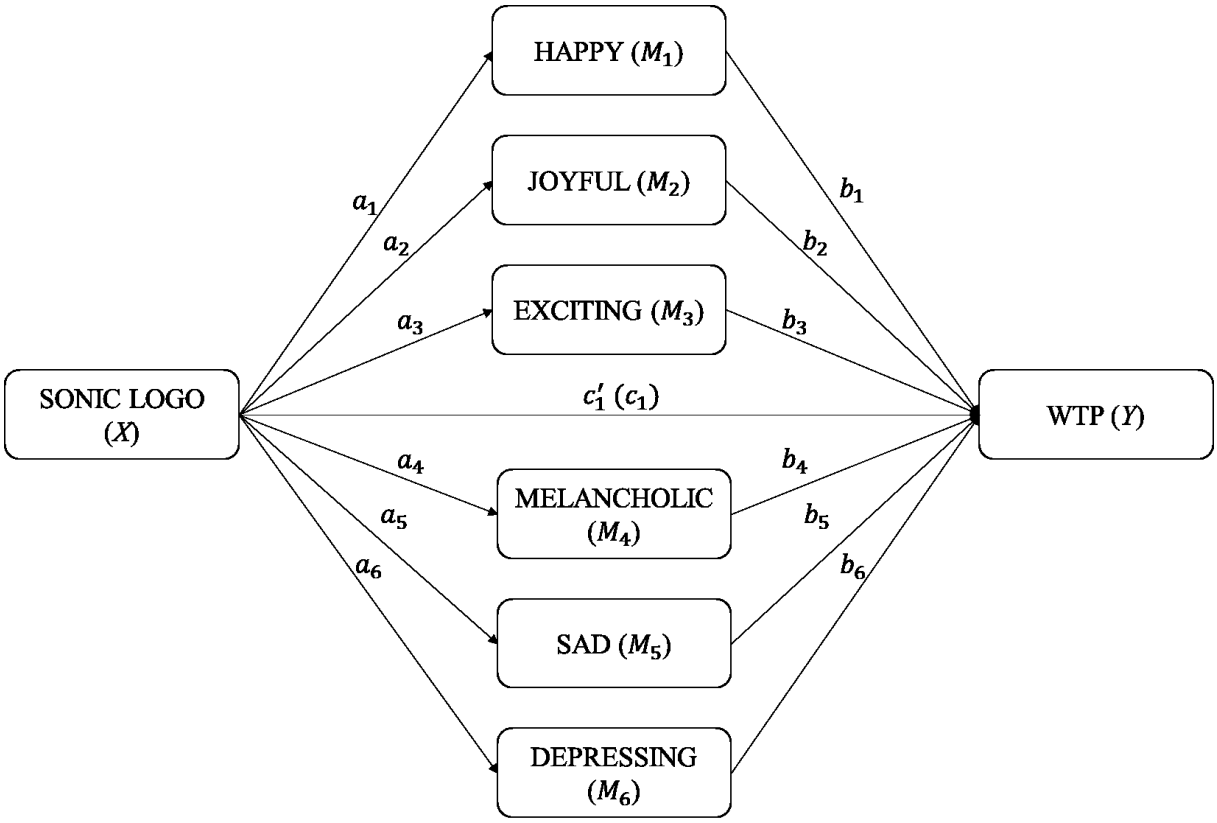
After conducting individual regression models to measure single-scale effects on WTP, all the scales are simultaneously considered as independent variables to predict WTP through a comprehensive stepwise regression model (RQ3, RQ4). Unsurprisingly, a significant regression is found ($F (8,315) = 32.33, p < .001, R^2 = .451$), which explains more variance of the dependent variable than all the other models individually. Considering all the scales, the predicted WTP is equal to *1.680 + .242 (Expensive [brand]) + .242 (Prestigious [brand]) + .077 (Familiar [music]) + .180 (High quality [brand]) - .100 (Healthy [brand]) + .101*

(Emotional [music]) - .076 (Novel/Original [music]) – .059 (Too noisy [music]). No other items are significant in predicting WTP according to this model. (Appendix 15)

4.2.9 Emotional Response to Music as Mediator

In order to measure the mediation effect of emotional response to music in the relationship between sonic logo and WTP (RQ5), a multiple parallel mediation analysis is conducted through Hayes' PROCESS (Hayes, 2017). Figure 1 and equations (1) and (2) show the correlations that this model aims to measure: $c_1$represents the total effect of sonic logo (*X*) on WTP (*Y*); a_i represents the individual effect of *X* on each mediator (M_i) "*happy*", "*joyful*", "*exciting*", "*melancholic*", "*sad*", "*depressing*", which refer to the music in the sonic logo; b_i represents the effect of M_i on *Y* controlling for *X*, and $a_i * b_i$ represents the indirect effect of X on Y when the mediators are taken into account.

Figure 1: Mediation model for emotional response to music

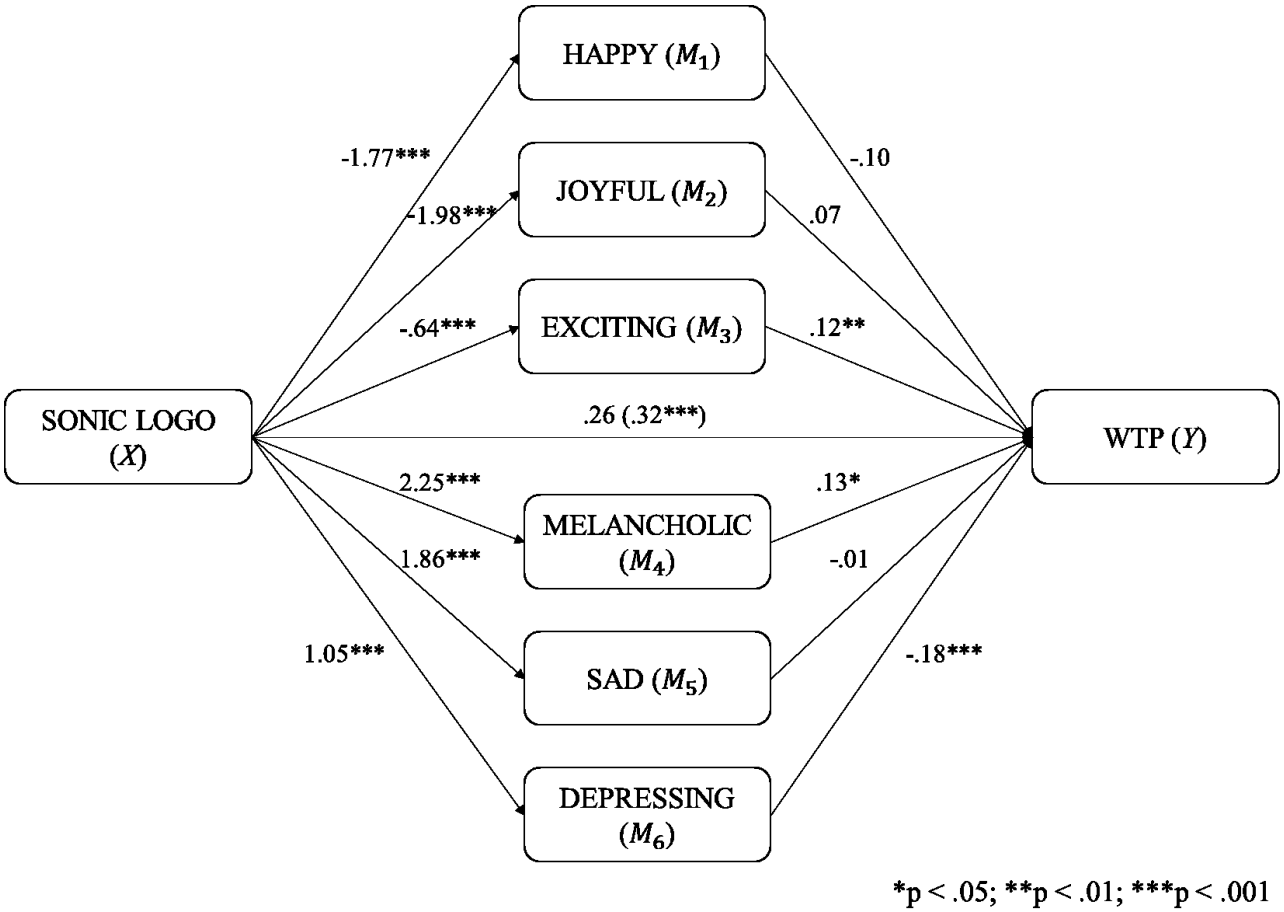


$$Y = J_Y + c_1'X + \sum_{i=1}^{k} b_i M_i + e_Y \quad (1)$$

$$\sum_{i=1}^{k} a_i \, b_i = \; c_1 - \; c_1' \tag{2}$$

The results are interpreted as follows. Unsurprisingly, the total effect of *X* on *Y* is significant (c_1 = *.32, p < .001*) and each direct effect of *X* on M_i is significant as well (a_1 = *-1.77, t (322) = -18.58, p < .001;* a_2 *= -1.98, t (322) = -23.17, p < .001;* a_3 *= -.64, t (322) = -6.66, p < .001;* a_4 *= 2.25, t (322) = 25.37, p < .001;* a_5 *= 1.86, t (322) = 19.57, p < .001;* a_6 *= 1.05, t (322) = 10.29, p < .001*). However, the direct effect of the mediators (b_i) are not all significant. According to the regression model to study the effect of emotional response to music on WTP, only "*exciting*", "*melancholic*" and "*depressing*" have a significant direct effect on WTP (b_3 *= .12, t (322) = 2.70 p < .01;* b_4 *= .13, t (322) = 2.39 p < .05;* b_6 *= -.18, t (322) = -3.44, p < .001*). Finally, the bootstrap analysis shows that there is a mediation effect in the model. In fact, the direct effect of *X* on *Y* is no longer significant when the mediators are included in the relationship (c_1' *= .26, t (322) = 1.96, p = n.s.*), and the indirect effect of *X* on Y ($a_i * b_i$) is significant for the mediators "*exciting*" (*indirect effect = -.08, CI = [-.14, -.02]*), "*melancholic*" (*indirect effect = .29, CI = [.06, .54]*), and "*depressing*" (*indirect effect = -.18, CI = [-.32, -.07]*). These three variables mediate the effect of the different music in the sonic logo on the WTP. (Figure 2 and Appendix 16)

Figure 2: Mediation effect of emotional response to music

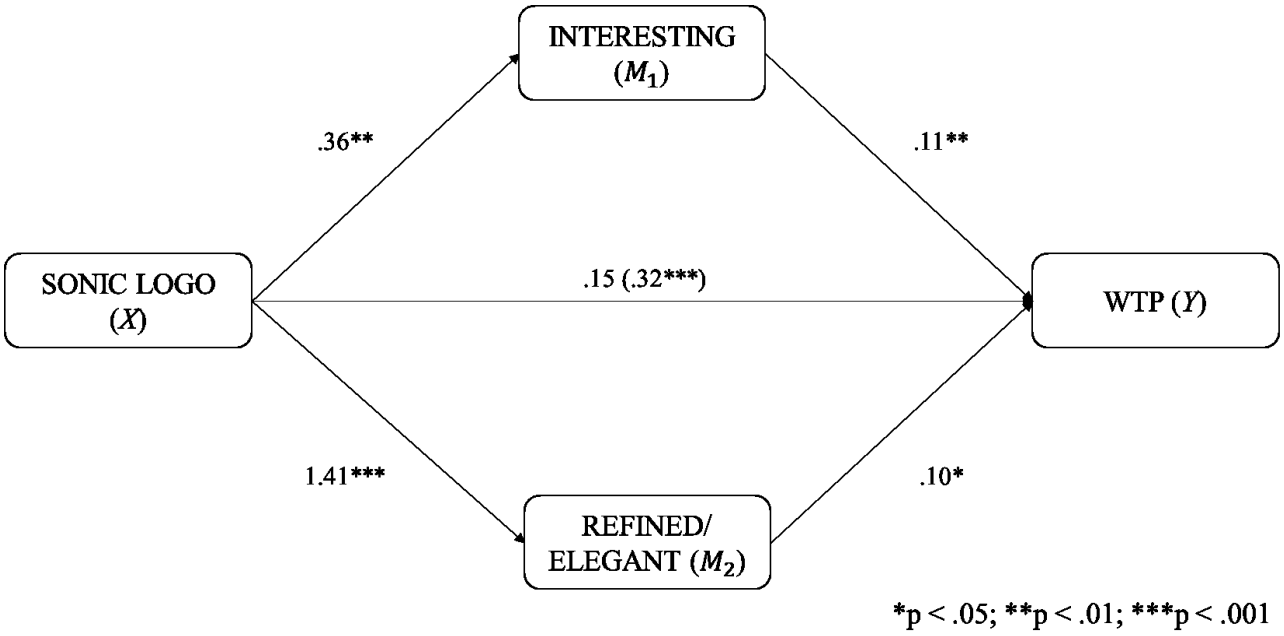


4.2.10 Personal Perceptions towards the Music as Mediator

Since only two dimensions regarding personal perceptions towards the music are found to be significant (Appendix 17), a multiple parallel mediation analysis is conducted to assess whether the personal perceptions towards the music found to be significant in predicting the WTP mediate the effect the sonic logo (*X*) on the WTP (*Y*) (RQ6). In this case, the mediators (M_i) are "*The music is interesting*" (M_1) and "*The music is refined/elegant*" (M_2). As in the previous model, figure 4 shows that the direct effect of *X* on *Y* is significant (c_1 *= .32, p < .001*), and each direct effect of *X* on M_i is significant as well (a_1 *= .36, t (322) = 3.28, p < .01;* a_2 *= 1.41, t (322) = 14.18, p < .001*). Moreover, the direct effect of both M_i on *Y* is significant (b_1 *= .11, t (322) = 2.65, p < .01;* b_2 *= .10, t (322) = 2.22, p < .05*). The model demonstrates the mediation effect, as the bootstrap analysis shows that the indirect effect of *X* on *Y* ($a_i * b_i$) is significant for the mediators "*The music is interesting*" (*indirect effect = .038, CI = [.01, .08]*) and "*The music is refined/elegant*" (*indirect effect = .14, CI = [.02, .25]*). Moreover, the direct effect of

X on Y is no longer significant when the mediators are included in the relationship ($c_1' = .15$, *t (322) = 1.68, p = n.s.*). (Figure 3 and Appendix 18)

Figure 3: Mediation effect of personal perceptions towards music



5. CONCLUSIONS

This last chapter reports the main conclusions of the research, as well as its theoretical and managerial implications. It also considers the limitations of the study and provides insights for future research.

5.1 Main Findings & Conclusions

The aim of this dissertation is to study potential correlations between sonic logos and brand perceptions. Specifically, whether the emotional response to and the personal perceptions towards the music in a sonic logo influence the perceived value of the brand in terms of WTP. Taking into account existing knowledge in the field, a primary data research was conducted both qualitatively and quantitatively in order to answer specific research questions formulated at the beginning. Although the fact that music induces emotional response is well-established (Fulberg, 2003), the qualitative research suggested that conscious reasoning reveals high uncertainty regarding a correlation between emotional response to music in a sonic logo and the perceived value of a brand. However, the experimental results show the strength of such correlation, which might lie in the consumers' subconscious (Fulberg, 2003).

The validity of the experiment is given by the manipulation check: the music in the sonic logos was able to evoke in the listeners opposite emotions that were intended to, by following Bruner's (1990) findings and directives regarding technical characteristics of music. However, the emotional expressions that best describe the two sonic logos are not "*happy*" and "*sad*", but "*joyful*" and "*melancholic*" respectively.

According to Krishnan et al. (2012), differences in sonic logos, all the other brand elements being constant, are reflected in different perceived value of the brand in terms of willingness to pay and purchase intention. Therefore, the music in sonic logos does have an effect on the perceived value of the brand in terms of WTP (RQ1). Specifically, the "sad" sonic logo is perceived to be more valuable in monetary terms than the "happy" sonic logo. However, in contrast with previous research (Aplert and Aplert, 1986), purchase intention is higher for the "happy" music (most likely because of the lower perceived price).

As suggested by literature (Wu et al., 2010; Zhu and Meyers-Levy, 2005) and the qualitative research, sonic logos also affect some dimensions of brand perceptions (RQ2).

"I associate sad music with more prestigious brands and happy music with cheaper ones"

Simone, interviewee

The "sad" logo is perceived as more prestigious, uncommon, serious, expensive and high quality, while the "happy" logo as more modest, common, funny, cheap and low quality. However, other dimensions of brand perceptions are not influenced by the sonic logo: whether the brand is interesting, healthy, reliable, modern and attractive. Interestingly, the qualitative research suggested that sonic logos would not influence the perceived brand quality.

"Music does not influence my perceptions towards the brand in terms of price and quality"

Chiara, interviewee

However, the results indicate the opposite, supporting previous literature (Lindstorm, 2005) and the importance of subconscious constructs in the correlation (Fulberg, 2003). Moreover, there is a strong correlation between some brand perceptions and WTP, suggesting that the sonic logo might indirectly influence the perceived value of the brand through brand perceptions.

There are less research and agreement on the effect of emotional response to music on WTP. Researchers have studied how happy music induces happy moods (Alpert and Alpert, 1986), which positively influence WTP (Yuan and Dennis, 2016) and sad music increases purchase intention (Alpert and Alpert, 1986). The qualitative research also presented contrasting views on the matter. The result of this study suggests that there is a correlation between the emotional response to music and WTP, although it is not remarkable on its own (RQ3). Even though the emotional response to music alone predicts little of the WTP, the results give relevant insights regarding the correlation: a melancholic music has the greatest positive effect on WTP and a depressing music has the greatest negative effect on it; an exciting music has a smaller and yet significant positive effect on WTP. The intensity of the emotional arousal, as well as felt happiness and sadness alongside perceived happiness, joy and sadness, do not significantly influence WTP. An important factor is the difference between perceived and felt emotion in response to music. According to previous research (Zentner et al., 2008), results show that music is able to communicate definite emotions without making the listener feel them; moreover, feeling the emotion that the music communicates is not relevant in predicting WTP. Therefore, WTP is not influenced by the actual mood (not) provoked by the music, but rather by specific perceived emotions communicated by it. It cannot be concluded that happiness or sadness impact the WTP, but only that a sonic logo perceived as melancholic or exciting has a positive effect on it, and a sonic logo perceived as depressing has a negative effect on it.

Another important correlation studied is the one between personal perceptions towards the music and WTP. Many studies have been conducted to assess the effect of personal perceptions towards the music and different dimensions of brand perceptions (for example, Wu et al., 2010; Beverland et al, 2006). However, no one of them has considered WTP as the dependent variable. This study found that the majority of personal perceptions investigated by the literature and suggested by the qualitative research have no direct effect on WTP: these include the pleasantness, distinctiveness, novelty, recognizability, familiarity of the music as well as its fit with the visual logo, the brand and the consumer's mood. The qualitative findings suggested that the fit with the brand, the pleasantness and distinctiveness of the music would significantly influence the perceived value of the brand.

"Pleasant music that fits the brand is for me sign of higher quality and price, while I associate distinctive and interesting music with more innovative brands"

Simone, interviewee

However, no one of them is found to be significant in the correlation. Nonetheless, WTP is slightly influenced by two personal perceptions towards the music (RQ4). In fact, the more elegant and interesting the music is perceived by the consumer, the higher his/her WTP. This result does not intend to invalidate previous research on personal perceptions towards music in affecting brand perceptions. On the contrary, it provides added value in evaluating what drives specifically the perceived value of a brand and what does not, among the numerous personal perceptions that have already be found to be significant in affecting different dimensions of brand perceptions.

Even though RQ3 and RQ4 considered the direct effect of emotional response to music and personal perceptions towards the music on WTP independently, results also show the overall effect when they are examined jointly and alongside brand perceptions. Unsurprisingly, this provides an overall set of attributes that are able to predict WTP more accurately than the previous independent correlations. It is worth mentioning that the dimensions regarding brand perceptions predict most of the WTP, and represent the only ones that do not change whether they are considered independently or jointly: the more the brand is perceived as expensive, prestigious and high quality, the higher the WTP; unexpectedly, the more a brand is perceived as healthy, the lower the WTP. The latter result might be due to the difference between perception and actual knowledge about a brand's healthiness since healthy choices imply responsible and conscious decision-making and are driven, for example, by the trust in the

certification of production of the brand (Krystallis and Chryssohoidis, 2005); however, future research should address this topic more deeply. In terms of music, the overall effect is relevant only for a few characteristics: the more the music is familiar and emotional, the higher the WTP; on the contrary, if the music is novel and too noisy, the impact on WTP is negative. This overall result and the independent ones should not be seen as mutually exclusive. On the contrary, they should be seen as general and specific combinations of sonic logo-related dimensions that are able to affect the perceived value of a brand, and thus should be used depending on the specific practical case's initial situation and desired outcomes or theoretical cause-effect relationship explored.

As mentioned before, the emotional response to music is found to affect WTP if the music in the sonic logo is melancholic, depressing or exciting. Interestingly, these three characteristics also mediate the direct effect of the sonic logos on WTP. In fact, these three characteristics are able to partially explain the reason why different sonic logos affect the perceived value of the brand. In other words, the direct effect of sonic logo on WTP can be explained by the emotional response to music in the sonic logo, which ultimately influences the WTP. Therefore, there is a mediation effect of emotional response to music between the sonic logo and the perceived value of the brand (RQ5).

A similar mediation effect is found regarding personal perceptions towards the music. The direct effect of sonic logos on WTP is partially explained by specific personal perceptions towards the music in the sonic logo. Specifically, the fact that the music is interesting and/or elegant partially explains the correlation between sonic logo and WTP. Therefore, there is a mediation effect of personal perceptions towards the music between the sonic logo and the perceived value of the brand (RQ6).

In conclusion, this study demonstrated how sonic logos significantly affect consumer's brand perceptions. Specifically, it validated the existence of a significant correlation between sonic logo and perceived value of the brand in terms of willingness to pay, underlying the relevance of sonic logo as a brand element, which should be designed according to technical characteristics in order to intentionally influence the perceived value of the brand. Other than the existence of the correlation, this study explored the reasons behind it by investigating the emotional response to and personal perceptions towards the music as mediators. In other words, the sonic logo affects WTP depending on specific emotions it is able to communicate and specific personal perceptions towards it. To summarize, a sonic logo can increase the perceived

value of the brand if its music is perceived as emotional, melancholic, exciting, interesting, elegant, familiar; however, it can decrease the perceived value of the brand if its music is perceived as depressing, novel, excessively noisy. Even though the music in the sonic logo has an impact on WTP, this study demonstrates that the sonic logo is to be considered a brand element that, among others, influences the perceived value of the brand, and not the most important factor in determining it.

5.2 Theoretical and Managerial Implications

This study contributes to the academic research in sonic branding (for example Alpert and Alpert, 1986, 1989; Jackson, 2003; Wu et al., 2010 Treasure, 2011) and specifically to the branch related to sonic logos' potential impact on WTP (Krishnan et al., 2012), proposing an interpretation based on emotional response to music (for example Bruner, 1990) and personal perceptions (for example Simpkins and Smith, 1974; Beverland et al., 2006; Sung and De Gregorio, 2008; Wu et al., 2010). Since little research exists in this specific area, this dissertation might be considered a starting point from which to expand the theoretical knowledge about the potential effects of sonic logos that can be applied in real managerial settings.

There is overall agreement on the importance of developing sonic branding strategies to succeed strategically (Graakjaer and Jantzen, 2009; Treasure, 2011). However, sonic branding strategies, and specifically sonic logos are often based on intuition instead of precise parameters (Brunan, 1990; Krishnan, 2012). This research aims to provide real insights to overcome the uncertainty of designing a sonic logo that is able to instil the desired emotions and perceptions to ultimately influence the perceived value of the brand. It provides relevant characteristics to consider at different stages and for different goals by companies: results show both which overall characteristics of the sonic logo are the most important in general, and which specific dimensions within each area are relevant. The overall results provide basic requirements for a sonic logo to affect WTP. They include some dimensions of brand perceptions: whether the music in the sonic logo makes the consumer perceive the brand as expensive, prestigious, high quality and healthy. They also include some personal perceptions towards the music: whether the music in the sonic logo is perceived as familiar, emotional, novel and excessively noisy. The specific results, instead, indicate which specific emotional responses to and personal perceptions towards the music in the sonic logo most influence the WTP. Companies should

embrace the former model to define which characteristics to consider when designing a sonic logo in the initial or a more general stage, and the latter models to define more specific characteristics depending on whether to focus on emotional response to the music in the sonic logo or on personal perceptions towards it in order to further affect the WTP. For example, the overall results indicate that an emotional music positively affects the WTP, and the area-specific results regarding emotional response indicate that the music has an impact on WTP if definite emotions are perceived (melancholy, excitement, depression).

In terms of emotional response, results show that melancholic music positively affects WTP and depressing music negatively affects WTP, suggesting that minimal changes in the sonic logo might deliver opposite outcomes, which might be simply due to the subjective individual interpretation of the music. Companies must consider this factor and try to induce the desired emotional response in their target population.

The study also provides the personal perceptions towards the sound that a sonic logo should and should not induce in the consumer in order to affect the perceived value of the brand. A more elegant and interesting music can lead to a higher perceived value of the brand and should be considered alongside other personal perceptions explored by literature, depending on the company's specific goals in terms of brand perceptions. Non-significant dimensions also provide useful practical insights: sonic logos influence WTP regardless of the fit with the brand and other personal perceptions towards the music. However, previous literature has proven their importance in affecting other dimensions of brand perceptions. Therefore, companies should not consider this study independently, but as an integration to existing knowledge to maximize their control over consumers' brand perceptions.

Since the "sad" sonic logo had the highest perceived value and the "happy" sonic logo the highest purchase intention, companies should consider their positioning, target population and overall marketing strategy when designing the sonic logo; it appears that different sonic logos might lead to mutually exclusive outcomes; therefore, its choice should be in line with specific predetermined goals. For example, companies that focus on high margins could benefit from a "sad" sonic logo, while companies that focus on high volume could benefit from a "happy" sonic logo.

5.3 Limitations and Future Research

This part presents limitations of the study and proposes possible directions for future research. The first limitation regards the sample of the quantitative research, which was non-randomly selected and thus presents a high selection bias and sampling error that might influence the reliability of the results (Saunders, 2011). Moreover, it is composed mainly of Italians, lacking the heterogeneity needed to generalize the results for non-Italian consumers. Future research should avoid cultural bias (Malhotra et al., 1996) by studying a multicultural sample.

Precaution in interpreting the results is required since the study includes many subjective elements, such as the labels adopted for the emotions, which might recall slightly different meaning from person to person, specifically in response to music. (Kessler and Puhl, 2004) A pretest regarding emotional terms interpretation could avoid ambiguity and give validity to the difference between "melancholic", "sad" and "depressing" music on one side, and between "happy", "joyful" and "exciting" music on the other.

Moreover, this study only compared two versions of the sonic logo: the results have relative significance but might lack absolute one, which could be explored by analysing more versions of the sonic logo in order to evoke a broader range of emotional responses (Bruner, 1990). It would be interesting, for example, to include a silent version of the sonic logo alongside different intended emotional responses.

This study only considered one product category and one brand, which does not exist. Future research should broaden the product category spectrum and include existing brands in order to measure the empirical significance of the results and assess whether there are different correlations depending on the product category. For example, it would be interesting to study whether sonic logos can alter existing brand perceptions for well-known brands, and for high-involvement products.

This research considered the emotional response to and the personal perceptions towards the music as mediators; further research could explore other mediators and moderators in the correlation. For example, brand perceptions and different personal perceptions towards the music could be explored, as well as context-related dimensions.

This study investigated the existence and reasons behind the correlation between sonic logo and perceived value of the brand; further research should explore the strength of sonic logos'

induced perceptions, for example through a before-and-after experimental design where perceptions are measured before and after an actual product is tested.

APPENDICES

Appendix 1: In-depth interview guidelines

INDIVIDUAL INTERVIEW

Thank you for participating in this interview. It is part of my Master Thesis; all your answers will be used for this purpose only and will remain anonymous.

There is no right or wrong answer to these questions, so please be as honest as possible.

Guidelines:

1. What product category do you perceive to be low-involvement?
2. For what kind of products do you think your mood influences your purchase choices?
3. For what kind of products do you think your mood does not influence your purchase choices at all?
4. Do you think you spend more when you are happy than when you are sad? Or the other way around?
5. Do you think you value brands differently depending on your mood?
6. Do you like “happy music”? (music that communicates positive/happy emotions)
7. Do you like “sad music”? (music that communicates negative/sad emotions)
8. Do you think music has an impact on your mood? (perceived vs felt emotion)
9. Imagine you watch a sonic logo (a logo with music), do you think that the perceptions of the music (for example whether the music is pleasant, distinctive, interesting and fits the brand) influence your perceptions of the brand (for example in terms of quality and price)?
10. Do you think that the emotion communicated by the music in a sonic logo can influence your perception of the brand (for example in terms of quality and value)?

Appendix 2: Online survey

Introduction

(Click on the right for the ITALIAN version)

Thank you for taking part in this survey. Your participation is highly appreciated since it truly helps me with my Master's Thesis.

This survey will take approximately 5 minutes to be complete.

Your answers are strictly confidential and anonymous; they will be used for this project only. There are no right or wrong answers, so please try to be as honest as possible.

This survey includes a video with audio, so please get ready to use your headphones or to just turn up the volume.

Thank you again

In the next page, you will watch a 15 seconds video. Please put your headphones on or just turn up the volume.

Experiment on sonic logos and WTP

Now watch the video and then answer the following question. If you are using the SMARTPHONE, make sure to click on the full-screen button in the lower right corner of the video

You have watched the logo of MOOD, a new brand of coffee.

Brands of coffee cost between 2€ and 5€ for a 250g coffee powder package.

2€ for private labels (supermarkets' brands like Pingo Doçe, Carrefour..)

3,50€ for brands like Lavazza Qualità Rossa, Delta Lote Chavena..

5€ for premium coffee brands (Lavazza Qualità Oro, Delta Platinum..)

Please indicate what you think is the price of MOOD's 250g package of coffee powder based on the video you have watched. Select the price on the following bar

	2€	3€	4€	5€
price for one MOOD's 250g coffee powder package				

Purchase Intention and Brand Perceptions

Do you think the average person would buy it if the price were what you indicated previously?

- ○ Absolutely not
- ○ Probably not
- ○ Maybe
- ○ Probably yes
- ○ Absolutely yes

Based on the video, how do you imagine MOOD (the brand of coffee) to be?

	1	2	3	4	5	
Uninteresting	○	○	○	○	○	Interesting
Modest	○	○	○	○	○	Prestigious
Common	○	○	○	○	○	Uncommon
Serious	○	○	○	○	○	Funny
Unhealthy	○	○	○	○	○	Healthy
Cheap	○	○	○	○	○	Expensive
Low quality	○	○	○	○	○	High Quality
Unreliable	○	○	○	○	○	Reliable
Traditional	○	○	○	○	○	Modern
Unattractive	○	○	○	○	○	Attractive

Product Category Involvement

Please indicate your level of agreement with the following statements

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
For coffee brands, price is a good indicator for quality	○	○	○	○	○
Expensive brands of coffee taste better than cheap ones	○	○	○	○	○
People tend to buy the cheapest brand of coffee	○	○	○	○	○
People tend to buy the same brand of coffee over time	○	○	○	○	○
People are highly involved in choosing the brand of coffee to buy	○	○	○	○	○
Choosing the brand of coffee to buy is easy	○	○	○	○	○
Choosing the brand of coffee to buy is quick	○	○	○	○	○
Coffee is an essential good	○	○	○	○	○
People always have coffee at home	○	○	○	○	○
People choose the brand of coffee depending on their mood	○	○	○	○	○

Emotional Response to Music

This is the same video as before; please pay specific attention to the music in it.

Please describe the music in the video in emotional terms: indicate your level of agreement on the following terms in describing the music in the video

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The music is EMOTIONAL (communicates emotions)	○	○	○	○	○
The music is HAPPY	○	○	○	○	○
The music is JOYFUL	○	○	○	○	○
The music is EXCITING	○	○	○	○	○
The music is MELANCHOLIC	○	○	○	○	○
The music is SAD	○	○	○	○	○
The music is DEPRESSING	○	○	○	○	○
I UNDERSTAND the emotion communicated by the music	○	○	○	○	○
The music makes me FEEL HAPPY	○	○	○	○	○
The music makes me FEEL SAD	○	○	○	○	○

Personal Perceptions towards the Music

Please indicate how much you agree or disagree with the following statements about the music in the video

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I LIKE the music	○	○	○	○	○
The music is PLEASANT	○	○	○	○	○
The music is DISTINCTIVE	○	○	○	○	○
The music is INTERESTING	○	○	○	○	○
The music is NOVEL/ORIGINAL	○	○	○	○	○
The music is easy to RECOGNIZE	○	○	○	○	○
The music grabs my ATTENTION	○	○	○	○	○
The music causes SURPRISE	○	○	○	○	○
The music sounds FAMILIAR to me	○	○	○	○	○
The music FITS THE VIDEO	○	○	○	○	○
The music FITS A BRAND OF COFFEE	○	○	○	○	○
The music FITS my CURRENT MOOD	○	○	○	○	○
The music is TOO NOISY	○	○	○	○	○
The music is REFINED/ELEGANT	○	○	○	○	○

Demographics and Answers Reliability

What is your gender?

- ○ Male
- ○ Female

What is your age?

- ○ Under 18
- ○ 18 - 24
- ○ 25 - 34
- ○ 35 - 44
- ○ 45 - 54
- ○ 55 - 64
- ○ 65 - 74
- ○ 75 - 84
- ○ 85 or older

What is your nationality?

- ○ Italian
- ○ Portuguese
- ○ German
- ○ Danish
- ○ Spanish
- ○ French
- ○ British

- ○ Dutch
- ○ other (please specify) _____

Where do you currently live?

- ○ Italy
- ○ Portugal
- ○ Germany
- ○ Spain
- ○ France
- ○ UK
- ○ Netherlands
- ○ Belgium
- ○ Other (please specify) _____

What is your occupation?

- ○ Student
- ○ Working student
- ○ Employed
- ○ Unemployed
- ○ Retired
- ○ Other (please specify) _____

Just one last question.

Have you paid attention to the questions and have you answered honestly during this survey? Should I use your answers for the research?

Please answer honestly. This answer, as well as all the survey, is completely anonymous.

- ○ Yes, my answers are reliable
- ○ No, I did not pay attention/I did not answer honestly so my answers are not reliable

Appendix 3: Sample characterization

Gender	Percent	Frequency
Male	34.9%	113
Female	65.1%	211
Age	**Percent**	**Frequency**
18-24	26.9%	87
25-34	31.2%	101
35-44	5.2%	17
45-54	12.3%	40
55-64	21.3%	69
65-74	3.1%	10
Nationality	**Percent**	**Frequency**
Italian	92.0%	298
Portuguese	1.5%	5
German	3.7%	12
Danish	0.3%	1
Spanish	0.3%	1
British	0.3%	1
Other	1.9%	6
Country of residence	**Percent**	**Frequency**
Italy	82.7%	268
Portugal	7.1%	23
Germany	2.2%	7
Spain	0.9%	3
France	0.9%	3
UK	0.9%	3
Netherlands	0.9%	3
Other	4.3%	14
Occupation	**Percent**	**Frequency**
Student	24.7%	80
Working student	9.6%	31
Employed	50.6%	164
Unemployed	4.6%	15
Retired	5.9%	19
Other	4.6%	15

Appendix 4: Scale reliability

Scale	Number of items	Cronbach's Alpha
Brand perceptions	10	.818
Personal perceptions towards the music	14	.837
Emotional response to music:		
Positive emotions	6	.801
Negative emotions	6	.755

Appendix 5: Product category involvement

Category	Item	Mean	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Price quality heuristics	For coffee brands, price is a good indicator for quality	3.45	1.9%	10.8%	32.7%	**49.7%**	4.9%
	Expensive brands of coffee taste beter than cheap ones	3.29	3.4%	16.7%	32.1%	**42.9%**	4.9%
	People tend to buy the cheapest brand of coffee	2.92	3.1%	32.7%	**35.8%**	25.9%	2.5%
Habituality	People tend to buy the same brand of coffee over time	4.16	0.6%	2.5%	6.8%	**60.2%**	29.9%
Choice ease and speed	People are highly involved in choosing the brand of coffee to buy	3.53	0.3%	9.3%	33.6%	**50.6%**	6.2%
	Choosing the brand of coffee to buy is easy	2.90	4.3%	31.2%	**34.9%**	29.0%	0.6%
	Choosing the brand of coffee to buy is quick	3.06	1.9%	30.2%	29.9%	**36.1%**	1.9%
Essentiality	Coffee is an essential good	3.15	9.6%	27.5%	17.3%	**29.9%**	15.7%
	People always have coffee at home	4.10	0.3%	6.2%	8.0%	**54.0%**	31.5%
Mood dependence	People choose the brand of coffee depending on their mood	2.12	21.3%	**53.1%**	17.9%	7.4%	0.3%

Appendix 6: Effect of music on WTP; independent samples t-test

Sonic logo	Mean WTP	SD	t-test	p
Sonic logo 1	3.25	.62	-4.58	.000
Sonic logo 2	3.58	.64		

Appendix 7: Effect of music on purchase intention; independent samples t-test

Sonic logo	Mean Purchase intention	SD	t-test	p
Sonic logo 1	3.53	.63	2.32	.021
Sonic logo 2	3.36	.72		

Appendix 8: Effect of music on brand perceptions; independent samples t-test

Sonic logo	Mean	SD	t-test	p
Uninteresting to Interesting				
Sonic logo 1	3.26	1.02	-1.4	.163
Sonic logo 2	3.42	.96		
Modest to Prestigious				
Sonic logo 1	2.92	.95	-2.54	.012
Sonic logo 2	3.19	.99		
Common to Uncommon				
Sonic logo 1	3.04	1.12	-2.22	.027
Sonic logo 2	3.3	1.04		
Serious to Funny				
Sonic logo 1	3.37	1.00	5.16	.000
Sonic logo 2	2.77	1.09		
Unhealthy to Healthy				
Sonic logo 1	3.48	.915	-.89	.376
Sonic logo 2	3.57	.86		
Cheap to Expensive				
Sonic logo 1	2.74	.92	-3.92	.000
Sonic logo 2	3.15	.97		
Low quality to High quality				
Sonic logo 1	3.24	.85	-2.17	.031
Sonic logo 2	3.45	.85		
Unreliable to Reliable				
Sonic logo 1	3.47	.92	-.73	.467
Sonic logo 2	3.54	.91		
Traditional to Modern				
Sonic logo 1	3.34	1.1	.15	.880
Sonic logo 2	3.32	1.12		
Unattractive to Attractive				
Sonic logo 1	3.39	1.02	-1.16	.249
Sonic logo 2	3.53	1.07		

Appendix 9: Effect of music on emotional response to music; independent samples t-test

Sonic logo	Mean	SD	t-test	p
The music is emotional				
Sonic logo 1	3.63	.89	-3.99	.000
Sonic logo 2	4.00	.78		
The music is happy				
Sonic logo 1	4.05	.72	19.59	.000
Sonic logo 2	2.28	.89		
The music is joyful				
Sonic logo 1	4.12	.68	23.17	.000
Sonic logo 2	2.14	.85		
The music is exciting				
Sonic logo 1	2.76	.95	6.66	.000
Sonic logo 2	2.11	.78		
The music is melancholic				
Sonic logo 1	1.67	.73	-25.29	.000
Sonic logo 2	3.92	.87		
The music is sad				
Sonic logo 1	1.50	.67	-19.57	.000
Sonic logo 2	3.36	1.01		
The music is depressing				
Sonic logo 1	1.56	.75	-10.3	.000
Sonic logo 2	2.61	1.07		
I understand the emotion communicated by the music				
Sonic logo 1	3.64	.83	2.29	.022
Sonic logo 2	3.42	.86		
The music makes me feel happy				
Sonic logo 1	3.49	.96	11.21	.000
Sonic logo 2	2.32	.92		
The music makes me feel sad				
Sonic logo 1	1.78	.80	-11.28	.000
Sonic logo 2	2.94	1.05		

Appendix 10: Effect of music on personal perceptions towards music; independent samples t-test

Sonic logo	Mean	SD	t-test	p
I like the music				
Sonic logo 1	3.36	.96	.16	.874
Sonic logo 2	3.34	1.07		
The music is pleasant				
Sonic logo 1	3.63	.88	.85	.394
Sonic logo 2	3.54	1.01		
The music is distinctive				
Sonic logo 1	2.64	.97	-1.27	.206
Sonic logo 2	2.77	.98		
The music is interesting				
Sonic logo 1	2.80	.95	-3.28	.001
Sonic logo 2	3.16	1.02		
The music is novel/original				
Sonic logo 1	2.56	.89	-.21	.832
Sonic logo 2	2.58	.91		
The music is easy to recognize				
Sonic logo 1	3.64	.86	5.68	.000
Sonic logo 2	3.04	1.04		
The music grabs my attention				
Sonic logo 1	3.35	.99	1.79	.075
Sonic logo 2	3.15	1.03		
The music causes surprise				
Sonic logo 1	2.82	.92	.30	.764
Sonic logo 2	2.79	1.00		
The music sounds familiar to me				
Sonic logo 1	3.31	.89	.07	.946
Sonic logo 2	3.30	1.04		
The music fits the video				
Sonic logo 1	3.28	.99	2.08	.038
Sonic logo 2	3.03	1.14		
The music fits a brand of coffee				
Sonic logo 1	2.98	.93	2.16	.032
Sonic logo 2	2.74	1.07		
The music fits my current mood				
Sonic logo 1	3.06	.93	.63	.528
Sonic logo 2	2.99	.98		
The music is too noisy				
Sonic logo 1	2.51	1.01	9.91	.000
Sonic logo 2	1.59	.60		
The music is refined/elegant				
Sonic logo 1	2.24	.91	-14.18	.000
Sonic logo 2	3.65	.89		

Appendix 11: Effect of brand perceptions on WTP; linear regression model

	R-square	F	p
Regression	.402	53.65	.000
Variables	**Coefficient**	**t**	**p**
Constant	1.969	14.22	.000
Expensive	.259	7.44	.000
Prestigious	.142	3.79	.000
High quality	.162	3.52	.000
Healthy	-.084	-2.25	.025

Exlcuded variables	**Coefficient**	**t**	**p**
Interesting	.014	.25	.799
Uncommon	.034	.64	.521
Funny	-.031	-.70	.483
Reliable	.055	.99	.322
Modern	0	.01	.995
Attractive	.104	1.83	.068

Appendix 12: Effect of emotional response to music on WTP; linear regression model

	R-square	F	p
Regression	.128	15.67	.000
Variables	**Coefficient**	**t**	**p**
Constant	2.924	19.06	.000
Melancholic	.215	6.69	.000
Depressing	-.171	-4.1	.000
Exciting	.100	2.52	.012

Exlcuded variables	**Coefficient**	**t**	**p**
Emotional	.091	1.62	.106
Happy	-.156	-1.68	.094
Joyful	-.077	-.82	.415
Sad	.043	.38	.707
Understand the emotion	.040	.75	.456
Felt happiness	.024	.33	.743
Felt sadness	.144	1.96	.051

Appendix 13: Perceived and felt emotions; paired sample t-test

	Mean	SD	t	p
Perceived emotion	3.53	.85	9.95	.000
Felt happiness	2.92	1.11		
Perceived emotion	3.53	.85	14.58	.000
Felt sadness	2.35	1.10		

Appendix 14: Effect of personal perceptions towards the music on WTP; linear regression model

	R-square	F	p
Regression	.116	21.07	.000
Variables	**Coefficient**	**t**	**p**
Constant	2.716	23.3	.000
Refined/elegant	.142	4.14	.000
Interesting	.094	2.39	.018

Exlcuded variables	Coefficient	t	p
Like the music	.026	.41	.682
Pleasant	.018	.3	.763
Distinctive	-.200	-.32	.750
Novel/original	-.089	-1.40	.162
Easy to recognize	-.103	-1.85	.066
Grabs the attention	-.051	-.80	.426
Surprising	-.003	.05	.964
Familiar	.062	1.14	.256
Fit with the video	.024	.41	.685
Fit with a brand of coffee	.004	.06	.951
Fit with current mood	.005	.09	.929
Too noisy	-.113	-1.92	.055

Appendix 15: Overall effect on WTP; linear regression model

	R-square	F	p
Regression	.451	32.33	.000
Variables	**Coefficient**	**t**	**p**
Constant	1.680	7.85	.000
Expensive [brand]	.242	7.14	.000
Prestigious [brand]	.146	3.98	.000
Familiar [music]	.077	2.68	.008
High quality [brand]	.180	4.04	.000
Healthy [brand]	-.100	-2.78	.006
Emotional [music]	.101	2.83	.005
Novel/original [music]	-.076	-2.23	.026
Too noisy [music]	-.059	-1.99	.047

Exlcuded variables	**Coefficient**	**t**	**p**
Interesting [brand]	.014	.27	.791
Uncommon [brand]	.053	1.03	.306
Funny [brand]	.001	.01	.989
Reliable [brand]	.058	1.09	.276
Modern [brand]	.011	.25	.800
Attractive [brand]	.098	1.74	.083
Happy [music]	-.041	-.90	.371
Joyful [music]	-.050	-1.05	.292
Exciting [music]	.055	1.14	.254
Melancholic [music]	.049	1.04	.302
Sad [music]	.012	.27	.786
Depressing [music]	-.008	-.19	.846
Understand the emotion	-.026	-.53	.597
Felt happiness	-.028	-.62	.535
Felt sadness	.048	1.10	.274
Like the music	.017	.34	.733
Pleasant [music]	.013	.26	.793
Distinctive [music]	-.018	-.31	.756
Interesting [music]	.084	1.48	.139
Easy to recognize [music]	-.058	-1.26	.207
[music] grabs attention	-.061	-1.15	.252
Surprising [music]	.055	1.17	.244
[music] fits the video	-.009	-.19	.847
[music] fits a brand of coffee	-.024	-.53	.598
[music] fits current mood	.029	.63	.531
Refined/elegant [music]	.059	1.15	.252

Appendix 16: Emotional response to music as mediator

Total effect		
Effect	**t**	**p**
.32	4.58	.0000

Direct effect		
Effect	**t**	**p**
.26	1.96	.0504

Indirect effect			
Mediator	**Effect**	**Lower CI**	**Upper CI**
Happy	.18	-.09	.44
Joyful	-.14	-.43	.16
Exciting	-.08	-.13	-.01
Melancholic	.29	.070	.54
Sad	-.01	-.24	.22
Depressing	-.18	-.32	-.70

Appendix 17: Personal perceptions towards the music as mediator; non-significant mediators

Indirect effect		
Mediator	**Lower CI**	**Upper CI**
Like the music	-.02	.02
Pleasant	-.02	.01
Distinct	-.01	.04
Novel/original	-.02	.01
Easy to recognize	-.01	.09
Grabs attention	-.02	.02
Surprising	-.01	.01
Familiar	-.02	.02
Fit the video	-.05	.01
Fit a brand of coffee	-.03	.03
Fit current mood	-.02	.01
Too noisy	-.03	.13

Appendix 18: Personal perceptions towards the music as mediator; significant mediators

Total effect		
Effect	**t**	**p**
.32	4.58	.000

Direct effect		
Effect	**t**	**p**
.15	1.68	.0938

Indirect effect			
Mediator	**Effect**	**Lower CI**	**Upper CI**
Interesting	.04	.01	.08
Refined/elegant	.14	.02	.25

REFERENCES

Aaker, D. A., Kumar, V., Leone, R. P., & Day, G. S. (2016). *Marketing research*. Wiley Global Education.

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of marketing research*, 347-356.

Alpert, J. I., & Alpert, M. I. (1986). *The effects of music in advertising on mood and purchase intentions*. Department of Marketing Administration, College of Business Administration and Graduate School of Business, University of Texas at Austin.

Alpert, J. I., & Alpert, M. I. (1989). Background music as an influence in consumer mood and advertising responses. *ACR North American Advances*.

Alpert, J. I., & Alpert, M. I. (1990). Music influences on mood and purchase intentions. *Psychology & Marketing*, *7*(2), 109-133.

Beverland, M., Lim, E. A. C., Morrison, M., & Terziovski, M. (2006). In-store music and consumer–brand relationships: Relational transformation following experiences of (mis) fit. *Journal of Business Research*, *59*(9), 982-989.

Blood, A. J., & Zatorre, R. J. (2001). Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion. *Proceedings of the National Academy of Sciences*, *98*(20), 11818-11823.

Bode, M. (2009). Making sense of music in advertising research. *Music in Advertising: Commercial Sounds in Media Communication and Other Settings*, 75-98.

Bouhuys, A. L., Bloem, G. M., & Groothuis, T. G. (1995). Induction of depressed and elated mood by music influences the perception of facial emotional expressions in healthy subjects. *Journal of affective disorders*, *33*(4), 215-226.

Breidert, C., Hahsler, M., & Reutterer, T. (2006). A review of methods for measuring willingness-to-pay. *Innovative Marketing*, *2*(4), 8-32.

Brooker, J. R., & Eastwood, D. B. (1989). LJsingState Logos to Increase Purchases Of Selected Food Products. *Journal of Food Distribution Research*, 175.

Bruner, G. C. (1990). Music, mood, and marketing. *The journal of Marketing*, 94-104.

Crisinel, A. S., Cosser, S., King, S., Jones, R., Petrie, J., & Spence, C. (2012). A bittersweet symphony: systematically modulating the taste of food by changing the sonic properties of the soundtrack playing in the background. *Food Quality and Preference*, *24*(1), 201-204.

Feinberg, R. A. (1986). Credit cards as spending facilitating stimuli: A conditioning interpretation. *Journal of consumer research*, *13*(3), 348-356.

Fontaine, C. W., & Schwalm, N. D. (1979). Effects of familiarity of music on vigilant performance. *Perceptual and motor skills*, *49*(1), 71-74.

Fraedrich, J. P., & King, M. F. (1998). Marketing implications of nonmusical sounds. *Journal of Business and Psychology*, *13*(1), 127-139.

Fulberg, P. (2003). Using sonic branding in the retail environment—an easy and effective way to create consumer brand loyalty while enhancing the in-store experience. *Journal of Consumer Behaviour*, *3*(2), 193-198.

Goldberg, M. E., & Gorn, G. J. (1987). Happy and sad TV programs: How they affect reactions to commercials. *Journal of consumer research*, *14*(3), 387-403.

Gorn, G. J. (1982). The effects of music in advertising on choice behaviour: A classical conditioning approach. *The Journal of Marketing*, 94-101.

Graakjær, N., & Jantzen, C. (2009). Mapping research on music in TV commercials. *Music in advertising: commercial sounds in media communication and other.*

Guéguen, N., Jacob, C., Le Guellec, H., Morineau, T., & Lourel, M. (2008). Sound level of environmental music and drinking behaviour: a field experiment with beer drinkers. *Alcoholism: clinical and experimental research*, *32*(10), 1795-1798.

Gustafsson, C. (2015). Sonic branding: A consumer-oriented literature review. *Journal of Brand Management*, *22*(1), 20-37.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

Hevner, K. (1936). Experimental studies of the elements of expression in music. *The American Journal of Psychology*, *48*(2), 246-268.

Hevner, K. (1937). The affective value of pitch and tempo in music. *The American Journal of Psychology*, *49*(4), 621-630.

Hilliard, O. M., & Tolin, P. (1979). Effect of familiarity with background music on performance of simple and difficult reading comprehension tasks. *Perceptual and Motor Skills*, *49*(3), 713-714.

Husain, G., Thompson, W. F., & Schellenberg, E. G. (2002). Effects of musical tempo and mode on arousal, mood, and spatial abilities. *Music Perception: An Interdisciplinary Journal*, *20*(2), 151-171.

Jackson, D. (2003). *Sonic branding: An essential guide to the art and science of sonic branding*. Springer.

Jeng, M. (2006). A selected history of expectation bias in physics. *American Journal of Physics*, *74*(7), 578-583.

Kallinen, K., & Ravaja, N. (2006). Emotion perceived and emotion felt: Same and different. *Musicae Scientiae*, *10*(2), 191-213.

Kramer, G., Walker, B., Bonebright, T., Cook, P., Flowers, J. H., Miner, N., & Neuhoff, J. (2010). Sonification report: Status of the field and research agenda.

Krishnan, V., Kellaris, J. J., & Aurand, T. W. (2012). Sonic logos: can sound influence willingness to pay?. *Journal of Product & Brand Management*, *21*(4), 275-284.

Krumhansl, C. L. (1997). An exploratory study of musical emotions and psychophysiology. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, *51*(4), 336.

Krystallis, A., & Chryssohoidis, G. (2005). Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *British Food Journal*, *107*(5), 320-343.

Le Gall-Ely, M. (2009). Definition, measurement and determinants of the consumer's willingness to pay: a critical synthesis and avenues for further research. *Recherche et Applications en Marketing (English Edition)*, *24*(2), 91-112.

Lewis, C., Fretwell, C., & Ryan, J. (2012). An empirical study of emotional response to sounds in advertising. *American Journal of Management*, *12*(1), 80.

Lindström, M. (2005). Brand Sense: Build Powerful Brands through Touch, Taste, Smell, Sight and Sound. *Kogan Page Limited*.

Loewenstein, G. (2000). Emotions in economic theory and economic behaviour. *American economic review*, *90*(2), 426-432.

Menon, V., & Levitin, D. J. (2005). The rewards of music listening: response and physiological connectivity of the mesolimbic system. *Neuroimage*, *28*(1), 175-184.

Milliman, R. E. (1982). Using background music to affect the behaviour of supermarket shoppers. *The journal of Marketing*, 86-91.

Milliman, R. E. (1986). The influence of background music on the behaviour of restaurant patrons. *Journal of consumer research*, *13*(2), 286-289.

Music. (n.d.). In *Oxford English dictionary*. Retrieved from https://en.oxforddictionaries.com/definition/music

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of general psychology*, *2*(2), 175.

North, A. C., Hargreaves, D. J., & McKendrick, J. (1999). The influence of in-store music on wine selections. *Journal of Applied psychology, 84*(2), 271.

Paul, B., Salwen, M. B., & Dupagne, M. (2000). The third-person effect: A meta-analysis of the perceptual hypothesis. *Mass Communication & Society*, *3*(1), 57-85.

Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of consumer research*, *21*(2), 381-391.

Robazza, C., Macaluso, C., & D'urso, V. (1994). Emotional reactions to music by gender, age, and expertise. *Perceptual and Motor skills, 79*(2), 939-944.

Russell, P. A. (1987). Effects of repetition on the familiarity and likeability of popular music recordings. *Psychology of Music*, *15*(2), 187-197.

Saunders, M. N. (2011). *Research methods for business students, 5/e*. Pearson Education India.

Scherer, K. R., & Oshinsky, J. S. (1977). Cue utilization in emotion attribution from auditory stimuli. *Motivation and emotion*, *1*(4), 331-346.

Simpkins, J. D., & Smith, J. A. (1974). Effects of music on source evaluations. *Journal of Broadcasting & Electronic Media*, *18*(3), 361-367.

Smith, P. C., & Curnow, R. (1966). "Arousal hypothesis" and the effects of music on purchasing behaviour. *Journal of Applied Psychology*, *50*(3), 255.

Sound. (n.d.). In *Oxford English dictionary*. Retrieved from https://en.oxforddictionaries.com/definition/sound

Sung, Y., & De Gregorio, F. (2008). New brand worlds: College student consumer attitudes toward brand placement in films, television shows, songs, and video games. *Journal of Promotion Management*, *14*(1-2), 85-101.

Swanwick, K. (1973). Musical cognition and aesthetic response. *Psychology of Music*, *1*(2), 7-13.

Thomas, N., & Reed, H. (2002). The Strategy and Tactics of Pricing.

Tom, G. (1990). Marketing with music. *Journal of Consumer Marketing*, *7*(2), 49-53.

Treasure, J. (2011). *Sound business*. Management Books 2000 Limited.

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive psychology*, *5*(2), 207-232.

Wedin, L. (1972). A multidimensional study of perceptual-emotional qualities in music. *Scandinavian journal of psychology*, *13*(1), 241-257.

Wheeler, B. L. (1985). Relationship of personal characteristics to mood and enjoyment after hearing live and recorded music and to musical taste. *Psychology of Music*, *13*(2), 81-92.

Wu, W. Y., Fu, C. S., Huang, H. S., & Wang, H. C. (2010). Effects of sound stimuli applied in branding: an empirical study of its antecedents and consequences. *Asian Journal of Business and Accounting*, *3*(1).

Yuan, L., & Dennis, A. R. (2014, January). The Happiness Premium: The Impact of Emotion on Individuals' Willingness to Pay in Online Auctions. In *System Sciences (HICSS), 2014 47th Hawaii International Conference on* (pp. 3120-3128). IEEE.

Zentner, M., Grandjean, D., & Scherer, K. R. (2008). Emotions evoked by the sound of music: characterization, classification, and measurement. *Emotion*, *8*(4), 494.

Zhu, R., & Meyers-Levy, J. (2005). Distinguishing between the meanings of music: When background music affects product perceptions. *Journal of Marketing Research*, *42*(3), 333-345.

To my grandparents