

Erasmus School of Economics

Thesis

To obtain the academic degree of
Master of Science in Economics & Business
Major in Marketing

**The Power of In-Store Audio Advertisement: Examining the Effect of
Focused Audio Marketing on Brand Sales and its Underlying Mechanisms**

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Abstract

The competition among supermarkets on the Dutch market was very intense during the last decade. This development highlighted the importance of atmospherics in a supermarket, as atmospherics is an important tool to influence the behavior of consumers.

The addition of focused audio marketing, music supported with product information played in a restricted area, could be regarded as an added component to the atmosphere of a supermarket. The research problem questioned the effects of focused audio marketing on consumers' behavior in a retail environment. It was investigated in a field experiment by using two special speakers (narrow and moderate focus) which produce a tight, narrow beam of sound. The study's field experiment tested in a retail environment the influence of narrow and moderate focus audio marketing on sales and purchase intention regarding products which were advertised by these tools.

Results showed that the sales of products increased due to the addition of narrow and moderate focus audio marketing. In order to generate insights regarding the influence of focused audio marketing on sales, the underlying mechanisms of this effect were investigated. Only the addition of narrow focus audio marketing had a positive influence on how consumers evaluated the store atmosphere and as a result displayed a higher purchase intention towards the product which was advertised by this tool. Nevertheless, the addition of narrow and moderate focus audio marketing had both a positive influence on the brand awareness of products which were advertised by these tools and as a result improved the consumers' purchase intention towards these products. Overall, the study showed that the addition of focused audio marketing was an effective way to influence the behavior of consumers in a retail environment. Consequently, the addition of focused audio marketing can offer an important competitive advantage to retailers.

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-In memory of- Robbert-Jan van Beek

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1. Introduction

This chapter provides an introduction to the field of this study. First, the problem definition including the problem statement and its related sub-questions together with the research objective will be discussed. Second, the academic contribution of this study and the managerial relevance will be motivated. Finally, the structure of this thesis will be presented in order to enhance better reading.

1.1. Problem Definition and Research Objective

The competition among supermarkets on the Dutch market is very intense, especially during the last decade. The price war from late 2003 all the way into 2006 involving nearly all Dutch supermarket chains makes this clear¹. Moreover, Albert Heijn (grocery retail market leader in the Netherlands) has just recently started a new price war¹. Price competition has negative consequences for retailers e.g. margin compression and lower profitability¹. In addition, supermarkets are concerned about how to provide shopping experiences that make a positive impression on customers. Kotler (1973) suggests that retail stores could use atmospherics as a competitive tool in an attempt to attract and maintain a specific target market, especially where product and/or price differences are nominal. Consequently, improvements in store atmosphere can offer an important sustainable competitive advantage to retailers. The addition of focused audio marketing, music played in a restricted area supported with product information, could improve the atmosphere of a supermarket and give them a competitive advantage. Therefore, it could be a determining factor for supermarkets to avoid negative consequences of unavoidable price wars.

Moreover, the addition of focused audio marketing to the atmosphere of a supermarket may also be interesting for Fast Moving Consumer Goods (FMCG) companies to differentiate their brands from other brands which are available on a shelf. Their current way of increasing the consumers' share of wallet is to deliver a good product supported by

¹ <http://www.nrc.nl/nieuws/2013/09/12/jumbo-volgt-albert-heijn-in-de-nieuwe-prijzenoorlog/>

marketing activities such as TV commercials, special displays at supermarkets and/or promotional discount on their products (FMCG Industry, The Economic Times). Thus, focused audio marketing could be an interesting additional tool for them at the place where it is crucial to be in the mind of the consumer, supermarket.

This study investigates the effects of focused audio marketing on consumer behavior in a field experiment by using two special speakers which produce a tight, narrow beam of sound. The 1st speaker is able to send out a message in an area of 1.5m²(narrow focus). The 2nd speaker is able to send out a message in an area of 5m²(moderate focus). A consumer is able to hear the focused audio message in this restricted area. Outside this area is the consumer exposed to the broad audio marketing, audio throughout the store, and not to the focused audio marketing message anymore. Overall, it will be an opportunity for supermarkets and FMCG companies if the results of this study show that focused audio marketing, music played in a restricted area supported with product information, has a positive influence on the behavior of consumers.

The main question addressed in this study is therefore:

What are the effects of focused audio marketing on consumers' behavior in a retail environment?

This main question is divided under the following two sub-questions and will be answered throughout the investigation:

1. Does the addition of focused audio marketing leads to more sales of the advertised products?

2. Does the addition of focused audio marketing improve the purchase intention towards the advertised products, if so in what way?

Thus, the objective of this study is to generate insights about the influence of focused audio marketing on consumer behavior regarding sales and its underlying mechanisms. A key contribution of this study is that I developed a framework that allows to test whether the effect of focused audio marketing on sales (i.e. purchase intentions) is mediated by store atmosphere perceptions and/or by brand awareness.

1.2. Scientific and Managerial Relevance

Research shows that consumers respond to more than just the core product being offered when making a purchase. An important feature is e.g. the place where it is bought. The place, or more specific, the atmosphere of the place, has in some cases more influence on the purchase decision than the product itself (Kotler, 1973). Kotler (1973) describes atmospherics as the effort to design buying environments to produce specific emotional effects in the buyer that enhance his/her purchase probability.

Previous studies show that consumer behaviors in store atmosphere are influenced via layout, color, lighting and music. Moreover, studies have shown that the style of background music and components e.g. tempo and sound level affects consumers' behavior. However, these studies are mainly based on broad audio marketing, audio played throughout the store.

Despite the importance of audio in store atmospherics, research on the effects of audio on consumer behavior is limited and typically focuses on music, not focused audio marketing, and on store-level analyses (for the only exception I could find see Yalch and Spangenberg, 1993). For instance, Yalch and Spangenberg (1993) focused their study on a specific department in a store and on the effect of *music* on the behavior of consumers. The remaining literature on store atmospherics, focuses on music at store-level analyses (e.g. Smith & Curnow, 1966; Milliam, 1982; Areni & Kim, 1993; North, Shilcock & Hargreaves, 2003). The effects of *focused audio marketing - music supported with product information* played in a **restricted area** - on consumer behavior has not been investigated. This gap is covered in this study. The effect of focused audio marketing on consumer behavior is investigated through a field experiment conducted in a retail store in Rijswijk, near Rotterdam. In short, I experimentally manipulated the usage of special speakers to transmit music supported with product information about two brands and measured the effect of this audio marketing on consumers' intentions and real purchases of these brands.

In terms of managerial implications, I expect the results of my thesis to lead that supermarket store managers will take focused audio marketing as a potential tool to positively influence the behavior of their customers. This may require further collaboration

between retail manager and FMCG managers. The synergy between the two could be improved. FMCG companies have nowadays hardly influence on the atmosphere of the supermarket where the final goods are bought². Supermarkets and FMCG companies could jointly increase the consumers' share of wallet. Supermarkets and FMCG companies have a reason to collaborate more closely after reading this thesis.

1.3. Structure of the Thesis

The thesis is divided into five sections, see Figure 1. The first section, current part, is an introduction to the field of this study. The theory and hypotheses of this study is provided in section two, including; the conceptual framework, dependent variables, and the relation between the independent variables and dependent variables. The third section, research methodology, outlines the study design and measurements of this study. Furthermore, the analysis techniques and pretest are discussed in this section. The research methodology is followed by the fourth section, including the analysis of the data and results. Finally, a general conclusion of this study is given in section five. Furthermore, the academic contribution and managerial implications together with the limitations and directions for future research will be discussed in this section.



Figure 1: Thesis structure.

² <http://www.consumersinternational.org/media/1035307/summary,%20the%20relationship%20between%20supermarkets%20and%20suppliers.pdf>

2. Theory and Hypotheses

This chapter provides the underlying theory and the resulting hypotheses of this study. First, the conceptual model will be presented. Second, relevant literature streams that have studied the dependent variables of this thesis will be discussed. Next, hypotheses will be developed based on the relationship between the independent variables and the dependent variables, followed by the mediating effects of the mediators. Finally, a summary of the hypotheses will be displayed.

2.1. Conceptual Framework

The investigation's underlying conceptual framework is divided into two models. Model 1, see Figure 2, displays the influence of focused audio marketing on sales, while controlling for the weather (sunshine duration, precipitation amount, and temperature). In this model I study the effect of focused audio marketing on the actual sales volume of the products which are advertised by this tool. In addition, I study to what extent the *degree of focused audio marketing* (narrow vs. moderate focus) influences this effect. In order to achieve this goal, in my experiments I operationalize this model in two ways (depending on the degree of focus), depicted in Figure 2 as model 1A and model 1B.

Model 1

Model 1A: experiment 1, narrow focus, focused audio marketing restricted to 1.5m².

Model 1B: experiment 2, moderate focus, focused audio marketing restricted to 5m².

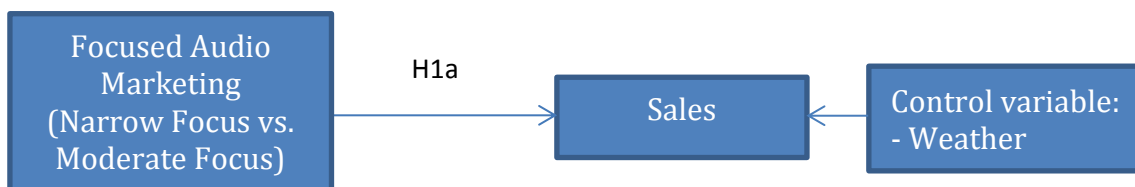


Figure 2: Conceptual framework, model 1.

Even though there are obvious benefits of using secondary data (i.e. observed sales), such data is not sufficient to clarify the mechanisms behind the studied effect. In order to

generate additional insights regarding the influence of focused audio marketing on sales, I investigate the underlying mechanisms of this effect using self-reported data about store atmosphere perceptions, brand awareness and purchase intentions. This is why I include a second model (see Model 2, in Figure 3) as part of the conceptual framework of my investigation. More specifically, this model displays the influence of focused audio marketing on purchase intention via two pathways; store atmosphere perceptions and brand awareness, while controlling for age, gender, and the weather (sunshine duration, precipitation amount, and temperature). The model is based on the purchase intention of products which are advertised by focused audio marketing. I expect that store atmosphere perceptions and brand awareness acts as mediators and therefore account for the relationship between focused audio marketing and purchase intention. Note that the model itself is divided into model 2A and model 2B, just like model 1. In this way, I can examine the influence of the degree of focus within focused audio marketing (narrow vs. moderate) on purchase intention and the mediators (store atmosphere perceptions and brand awareness).

Model 2

Model 2A: experiment 1, narrow focus, focused audio marketing restricted to 1.5 m².

Model 2B: experiment 2, moderate focus, focused audio marketing restricted to 5 m².

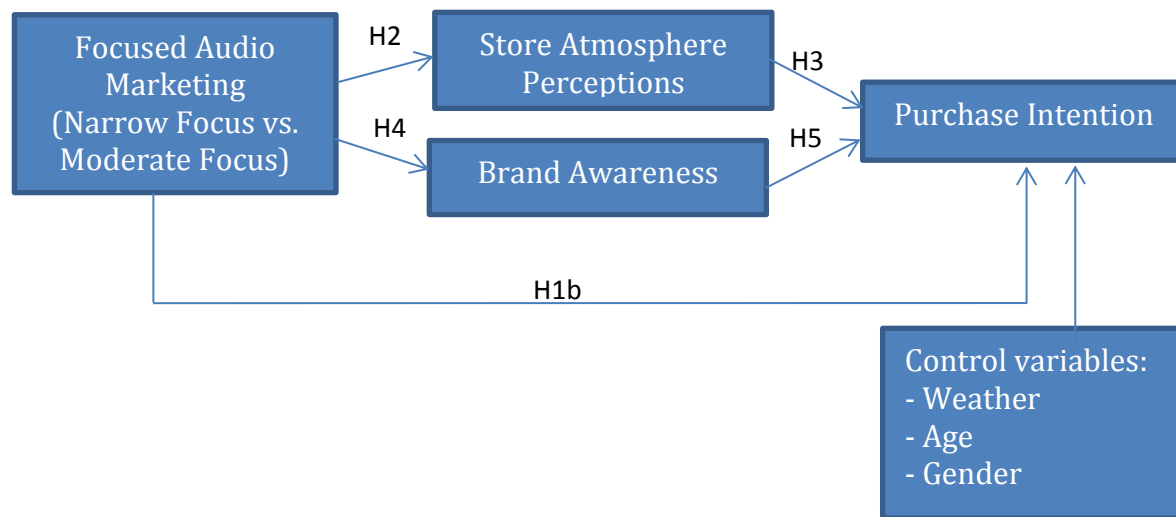


Figure 3: Conceptual framework, model 2.

2.2. Dependent Variables

As already pointed out in the conceptual framework, this research examines two dependent variables: sales and purchase intention. Previous literature and research on these variables will be discussed in the following two sub-sections.

2.2.1. Prior Studies on Sales

Previous studies shows that consumers respond to more than just the core product being offered when making a purchase. The atmosphere of a store can influence the feelings of consumers and as a result influence the shopping intention, perceived quality, shopping value, consumption amount, and satisfaction (Babin & Attaway, 2000). More extreme, the atmosphere of a store has in some cases more influence on the purchase decision than the product itself (Kotler, 1973). An important element of the store atmosphere is music. Studies have shown that the style of background music (Areni & Kim, 1993), and components e.g. sound level (Smith & Curnow, 1966), and tempo (Milliam, 1982), affects the behavior of consumers.

Smith and Curnow (1966) are the first persons in history who investigate the influence of music on consumer behavior. They find that customers of a grocery store spent significantly less time in the store during the loud session in relation to the soft session. In addition, Donovan, Rossiter, Marcoolyn and Nesdale (1994) has shown that time spent in a store is positively correlated with sales. Consequently, music loudness has an influence on sales.

The component of tempo in music and its influence on consumer behavior is investigated by Milliam (1982). He find that a low music tempo, -73 beats-minute, compared to a high tempo, +93 beats-minute, leads to a decrease in the traffic flow in the store, but an increase in the sales volume. The average gross sales increased from \$12,112.35 for the fast tempo music to \$16,740.23 for the slow tempo music, 38.2% increase in sales volume.

A research regarding the music style and its influence on sales is e.g. Areni and Kim (1993). They find that music style has an influence on consumer behavior in a wine store. More specific, their research shows that classical music increased the amount of sales and led the customers to select more expensive wine compared to top-40 music. This is also confirmed

by North, Shilcock and Hargreaves (2003). They find that customers in a restaurant spent more money when classical music was played compared to pop music or no music.

However, the previous described studies to audio as an antecedent of sales are on a store basis. Studies to focused audio as an antecedent of sales are very limited e.g. Yalch and Spangenberg (1993). Yalch and Spangenberg (1993) find that playing the suitable music for a specific department improves the atmospherics, resulting in consumers spending more money and making more purchases. When playing background music in the women's department in relation to broad audio marketing (same music throughout the store), shoppers are more likely to make a purchase (57% versus 26%), and spent more money (\$22.22 versus \$8.91). This effect is stronger for men in the men's department were, 76% made a purchase versus 57%, and spending more money (\$34.18 versus \$18.13).

2.2.2 Prior Studies on Purchase Intention

Previous studies have shown that perceived product value is an important antecedent of purchase intention and even of sales. (Zeithaml, 1988; Chang & Wildt, 1994; Grewal, Krishnan, Baker & Borin, 1998). Consumers make inferences about the product value based on the quality and price of the product (Zeithaml, 1988; Chang & Wildt, 1994). Perceived quality of a product has a positive influence on the product value. Perceived price has a negative influence on the product value. However, perceived price has a significant positive effect on product value via the consumer's perception of product quality. This could be due to the fact that consumers use also the price of a product as an indicator of the quality it could offer (Dodds, Monroe & Grewal, 1991). Consequently, perceived value could be seen as a utility construct based on what must be given and what is received (Zeithaml, 1988). In addition, additional product information has a positive influence on the perceived quality of a product (Chang & Wildt, 1994).

Furthermore, the atmosphere of a store has also an influence on the purchase intention. Research shows that components in a store atmosphere e.g. music, has an influence on the internal state of a consumer, which in turn influences the intentions and behaviors of consumers (Donovan & Rossiter, 1982). Moreover, the originality and pleasantness of a store environment could create a better evaluation by consumers and facilitates a higher

purchase intention towards products (Liao, Chih-Wen Huang, Ting-Yi Huang, Deeseentham, 2012).

2.3. Focused Audio Marketing and its Influence on Purchase Probability

Based on the literature review of the dependent variables, we know that the actual sales and purchase intention towards products are closely related and are influenced by the consumer's attitude towards products and other external factors e.g. music. Thus, in order to prevent repetition, the underlying theory regarding the influence of focused audio marketing on sales and purchase intention are combined in the construct of purchase probability. The key independent variable of this study is focused audio marketing. Focused audio marketing is music played in a restricted area supported with product information. Consequently, focused audio marketing could be split up in two components: music and product information.

Music

Previous studies show that music has an influence on sales via its influence on the internal state of a consumer. Mehrabian and Russell (1974) for example find by using their Stimulus-Organism-Response (S-O-R) model, that the external physical environment can influence an individual's internal state and behaviors. They find that music (Stimulus) has an influence on the consumer's (Organism's) internal state. This is also supported by Gorn, 1982; Mark I. Alpert, Judy I. Alpert, 1990; Bruner, 1990; Yalch & Spangenberg, 1993; Gorn, Goldberg & Basu, 1993; Mark I. Alpert, Judy I. Alpert & Maltz, 2005. For example, Mark I. Alpert and Judy I. Alpert (1990) were able to influence consumers' internal state with the use of music. Happy music produces happier moods. Since the musical component in the focused audio messages is based on happy music, it is expected that it will have a positive influence on the consumers' internal state. In turn, the internal state of a consumer has an influence on the consumer's behavior, approach or avoidance (Response) (Mehrabian & Russell, 1974). Overall, it is expected that the musical component in the focused audio marketing message has a positive influence on the purchase probability of the products which are advertised by focused audio marketing.

Product information

Previous studies show that perceived quality of a product has a positive influence on product value, which in turn influences the purchase intention towards that particular product (Zeithaml, 1988; Chang & Wildt, 1994; Grewal, Krishnan, Baker & Borin, 1998). Furthermore, additional product information has a positive influence on the perceived quality of a product (Chang & Wildt, 1994). Thus, additional product information has a positive influence on the purchase intention towards a specific product. Consequently, the product information component of focused audio marketing has a positive influence on the purchase probability of the products which are advertised by focused audio marketing.

Additionally, Spies, Hesse and Loesch (1997) find that visitors of a store who evaluates the information rate in a store as high, experience a positive mood change. Thus, additional information to consumers in a store will have a positive influence on their internal state. Based on previous findings we know that this will have a positive influence on approach behaviors. Moreover, a positive mood serves as added information when a consumer evaluates a certain situation (Bless, Bohner, Schwarz & Strack, 1990). More specific, when a consumer is in a good mood, he/she might attribute this positive feeling to the advertised products and as a result improve their attitude towards the products. In addition, a consumer's attitude towards a specific brand is an important driver of the purchase probability of that brand (Laroche, Kim & Zhou, 1996). Overall, it is expected that the product information component in the focused audio marketing message has a positive influence on the purchase probability of the products which are advertised by focused audio marketing.

Based on the theoretical fundamentals from above, the following is hypothesized for the influence of focused audio marketing with respect to purchase probability (sales and purchase intention):

H1a: The addition of focused audio marketing will increase the sales volume of the advertised products.

H1b: The addition of focused audio marketing has a positive influence on the consumers' purchase intention towards the advertised products.

2.4. The Mediating Effect of Store Atmosphere Perceptions

The following two sub-sections will discuss the role of store atmosphere perceptions as mediator of the relation between focused audio marketing and purchase intention.

2.4.1. The Influence of Focused Audio Marketing on Store Atmosphere Perceptions

The effort to design buying environments in order to create specific feelings in the consumer and ultimately to affect their behavior is known as atmospherics (Kotler, 1973). Thus, the design of the store atmosphere could be regarded as an intentional control and structuring of atmospheric stimuli. The design of the atmosphere is one of the determining factors of a business failure or success (Bitner, 1990). These atmospheric stimuli could be divided into five categories (Turley & Milliman, 2000);

- General interior e.g. merchandise
- Exterior e.g. parking availability
- Human variables e.g. employee characteristics
- Point-of-purchase and decoration variables e.g. product displays
- Layout e.g. space design and allocation

Focused audio marketing could be regarded as a point-of-purchase stimulus. Consequently, the addition of focus audio marketing in a supermarket could be seen as an added component to its atmosphere. Furthermore, the earlier described findings regarding the influence of focused audio marketing on purchase probability shows that the music and product information component of focused audio marketing has a positive influence on the consumers' internal state. In addition, consumers who are in a particular feeling state while shopping, affiliate their feelings with the store (Biggers & Pryor, 1982; Swinyard, 1993). Consequently, it could be stated that the addition of focused audio marketing has a positive influence on how consumers perceive the atmosphere of the store.

Based on the theoretical fundamentals from above, the following is hypothesized for the influence of focused audio marketing with respect to store atmosphere perceptions:

H2: The addition of focused audio marketing has a positive influence on the perceived atmosphere of the supermarket.

2.4.2. The Influence of Store Atmosphere Perceptions on Purchase Intention

Environmental psychology literature shows that people form inferences about an object based on environmental cues (Baker, Grewal & Parasuraman, 1994). Consequently, the atmosphere of a store has an influence on the purchase intention towards a particular product. More extreme, the atmosphere of a store has in some cases more influence on the purchase decision than the product itself (Kotler, 1973). This could be explained by the fact that store atmosphere has an influence on the store's overall merchandise quality perception (Baker, Grewal & Parasuraman, 1994; Baker, Parasuraman, Grewal & Voss 2002). Thus, perceived quality of a particular product is influenced via the atmosphere of a store (Baker, Grewal & Parasuraman, 1994; Baker, Parasuraman, Grewal & Voss 2002; Liao, Chih-Wen Huang, Ting-Yi Huang, Deeseentham, 2012). In addition, from previous findings we know that consumers make inferences about the product quality based on the product information and price of the product. In turn, consumers make a tradeoff between product quality and price to form an image about the potential value it could deliver.

Overall, the perceived value of a particular product is influenced via the atmosphere of a store (Baker, Grewal & Parasuraman, 1994; Baker, Parasuraman, Grewal & Voss 2002; Liao, Chih-Wen Huang, Ting-Yi Huang, Deeseentham, 2012), perceived quality/ price and product information (Chang & Wildt, 1994). Since perceived value is an important antecedent of purchase intention, it could be stated that store atmosphere has an influence on purchase intention. Moreover, consumers spending extra time and spending more money than planned in a pleasurable store atmosphere (Donovan, Rossiter, Marcoolyn & Nesdale, 1994). Thus, the originality and pleasantness of a store environment could create a better evaluation by consumers and facilitates a higher purchase intention towards products (Liao, Chih-Wen Huang, Ting-Yi Huang, Deeseentham, 2012).

Based on the influence of focused audio marketing on store atmosphere perceptions, see section 2.4.1, and the theoretical fundamentals from above, the following is hypothesized for the influence of focused audio marketing with respect to purchase intention:

H3: The relationship between focused audio marketing and purchase intention is mediated by the atmosphere of the supermarket.

2.5. The Mediating Effect of Brand Awareness

The following two sub-sections will discuss the role of brand awareness as mediator of the relation between focused audio marketing and purchase intention.

2.5.1. The Influence of Focused Audio Marketing on Brand Awareness

In order to form an attitude towards a brand, a consumer has first to be aware of that particular brand (Percy & Rossiter, 1992). Brand awareness represents consumers' ability to recognize or recall a certain brand (Keller, 1993). According to the memory theory, brand awareness is an important first step in building the "package" of associations which are attached to a particular brand in the memory (Krishnan, 1996).

Previous research shows that a greater amount of advertising is positively related to brand awareness (Yoo, Donthu & Lee, 2000). Thus, the addition of focused audio marketing will stimulate the brand awareness of the advertised products.

Moreover, from the Elaboration Likelihood Model (ELM) perspective, music in focused audio marketing serves as a peripheral cue which helps to gain attention for the advertised products (Petty & Cacioppo, 1984). Thus, consumers are more motivated to process a message when it is supported with music. That music serves as an attention grabbing instrument is also shown by Brooker and Wheatley (1994). In their study (Brooker & Wheatley, 1994), the inclusion of music in an advertisement is shown to invite attention to the message.

Consequently, the addition of focused audio marketing increases the consumers' attention to the brands of the advertised products. In addition, consumers' attention towards a brand is positively correlated with brand awareness (Ye & Raaij, 2004). Thus, the addition of focused audio marketing will stimulate the brand awareness of the advertised product.

Based on the theoretical fundamentals from above, the following is hypothesized for the influence of focused audio marketing with respect to brand awareness:

H4: The addition of focused audio marketing has a positive influence on the brand awareness of the advertised products.

2.5.2. The Influence of Brand Awareness on Purchase Intention

Even in the absence of a well-formed attitude, brand awareness may be sufficient for product choice in low involvement decision settings e.g. supermarkets (Hoyer and Brown 1990). This could be due to the fact that the higher the brand awareness is, the higher perceived quality is (Dodds, Monroe & Grewal, 1991). In addition, based on previous findings, we know that perceived quality is an important antecedent of purchase intention.

Furthermore, the majority of consumers choose a brand on the basis of a simple heuristic e.g. brand awareness and pricing, in circumstances relating to convenience goods (Hoyer & Brown, 1990; Leong, 1993; Macdonald & Sharp, 2000). This should especially hold for consumers in a supermarket (Macdonald & Sharp, 2000). Moreover, stimulating the brand awareness of a particular brand increases the likelihood that the brand will be part of the consideration set (Nedungadi, 1990).

Overall, in a low involvement decision setting e.g. supermarket, brand awareness have an influence on perceived quality and whether a particular product is a member of the consideration set.

Based on the influence of focused audio marketing on brand awareness, see section 2.5.1, and the theoretical fundamentals from above, the following is hypothesized for the influence of focused audio marketing with respect to purchase intention:

H5: The relationship between focused audio marketing and purchase intention is mediated by the brand awareness of the advertised products.

2.6. Summary of Hypotheses

- H1a { • The addition of focused audio marketing will increase the sales volume of the advertised products.
- H1b { • The addition of focused audio marketing has a positive influence on the consumers' purchase intention towards the advertised products.

- H2 { • The addition of focused audio marketing has a positive influence on the atmosphere of the supermarket
- H3 { • The relationship between focused audio marketing and purchase intention is mediated by the atmosphere of the supermarket.
- H4 { • The addition of focused audio marketing has a positive influence on the brand awareness of the advertised products.
- H5 { • The relationship between focused audio marketing and purchase intention is mediated by the brand awareness of the advertised products.

3. Research Methodology

This chapter provides the research methodology of the investigation. First, the study design will be discussed. It makes clear how data was gathered and what type of data was used. Second, the measurements which were used to test the hypotheses will be presented. Next, the analysis techniques which were used to test the hypotheses will be discussed, followed by the pretest of the experiments.

3.1. Study design

In order to investigate the influence of focused audio marketing on consumer behavior regarding sales and its underlying mechanism, a field experiment was conducted. The field experiment could be split up into two experiments. The two experiments took place on the same time and were conducted in the Plus Supermarket Jongenotter located in Rijswijk, the Netherlands.

Experiment 1



For the first experiment a special speaker restricted to an area of 1.5m^2 was used, see appendix 1. Music and product information regarding Bueno chocolate bars was played via this speaker during the field experiment, see Figure 4. Bueno chocolate bars were located at the sweet aisle, see appendix 2. The special speaker was installed in the ceiling above the shelf where the Bueno chocolate bars were located. The motion sensor, next to the speaker, was able to detect a consumer when he/ she was nearby the Bueno chocolate bars. The motion sensor in turn activated the focused audio marketing message.

Figure 4: Experiment 1, narrow focus audio marketing (restricted to an area of 1.5m^2).

Experiment 2



Figure 5: Experiment 2, moderate focus audio marketing (restricted to an area of 5m²).

For the second experiment a special speaker restricted to an area of 5m² was used, see appendix 1. Music and product information regarding Sourcy Vitamin Water was played via this speaker during the field experiment, see Figure 5. Sourcy Vitamin Water was located at the soda aisle, see appendix 2. The special speaker was installed on the right side of Sourcy Vitamin Water on the shelf. The motion sensor was installed in the speaker itself. The focused audio marketing message was played when a consumer was in the area of Sourcy Vitamin Water.

The duration of the focused audio marketing messages of the two experiments was fifteen seconds followed by a silence of sixty seconds. The silence of sixty seconds was implemented to prevent complaints of consumers and employees about the continuously repeated messages.

In order to make sure that this research possesses a maximum level of validity, some measures were taken. First, the influence of focused audio marketing on consumer behavior was tested in a real life setting (field experiment), this strengthened the external validity of the study. Moreover, experimental research provides strong evidence for causal interpretations. Second, I could not use the same product due to time constraints and logistic reasons, e.g. not feasible to move speakers around. Therefore, the advertised products were chosen in agreement with the manager of the supermarket with the following criterion in mind: the advertised products have comparable prices, comparable audio content, serve same age group, and may not have a price discount during the period of the field experiment. Third, comparative experiments are always conducted on the same

weekdays. This is due to the fact that consumption patterns and buying behaviors might differ between days of the week. Thus, in order to strengthen the internal validity of this study, the two experiments run simultaneously and the special speakers were turned on/off in the same week, see Table 1.

<i>Special speakers off:</i>	<i>Special speakers on:</i>
Week 19	Week 20
Week 21	Week 22
Week 23	Week 24
Week 25	Week 26

Table 1: Status special speakers.

Secondary Data on Sales

At the time of writing of my thesis, the Plus Supermarket Jongenotter was open six days a week, from Monday till Saturday. On Sundays the store was closed. I collected sales data of the advertised products, i.e. daily sales in quantity (i.e. sales volume), for the eight weeks of my field experiment (week 19-week 26). In order to gather this data, I was granted access to the store's internal operations software (Plus Supermarket Jongenotter). During this period, as agreed with the store manager, the prices of the focal brands I use were not only comparable but also kept stable, allowing me to analyze sales volume without concerns for price and promotional effects. In total, ninety-two data points, sales volume per day, were gathered; forty-six for Bueno chocolate bars and forty-six for Sourcy Vitamin Water.

Self-reported data

The self-reported data of experiment 1 and experiment 2 was collected on the same day and same time interval: morning (9:00-12:00), afternoon (13:00-16:00), or evening (18:00-20:00). Therefore it was possible to compare the degree of focused audio marketing (narrow vs. moderate) with each other in a valid way.

Furthermore, in order to determine the influence of focused audio marketing (special speakers on vs. special speakers off) on consumer behavior, some measures were taken. In addition, randomization in experimental research takes a fundamental role to rule out unobservable factors and to establish causality. The self-reported data was three times in a

week collected based on the following two day sets; Monday, Wednesday, and Friday or on Tuesday, Thursday, and Saturday. At the beginning of the weeks when the special speakers were on, one of the two outlined sets was randomly chosen for collecting the self-reported data. Furthermore, the randomly chosen days in the week when the special speakers were on was also adopted for the data collection in the week when the special speakers were off. This is chosen due to the fact that consumption patterns and buying behaviors might differ between days of the week. Hereby, it was possible to measure the influence of focused audio marketing (special speakers on vs. special speakers off) on consumer behavior in a valid way. In addition, in order to strengthen the internal validity of this study, the time intervals during which self-reported data was collected had also been accounted for. There were three time intervals: morning (9:00-12:00), afternoon (13:00-16:00), and evening (18:00- 20:00). At the beginning of the weeks when the special speakers were on, it was randomly chosen during which time interval the self-reported data was collected. The randomly chosen time intervals in the weeks when the special speakers were on had also been adopted for the self-reported data collection in the weeks when the special speakers were off.

The self-reported data was collected by distributing questionnaires in the Dutch language, when the special speakers were on or off, to consumers who were in the reach of the focused audio marketing messages (1.5m² and 5m²). Thus, questionnaires were distributed to consumers who walked nearby Bueno chocolate bars (experiment 1) and to consumers in the area of Sourcy Vitamin Water (experiment 2), see Figure 6. Customers were asked to fill out a questionnaire regarding the audio in the supermarket. Approximately 10% of the customers refused to participate in the investigation. Customers that refused to participate in the investigation were not systematically different from others, within the experiments and between the experiments.

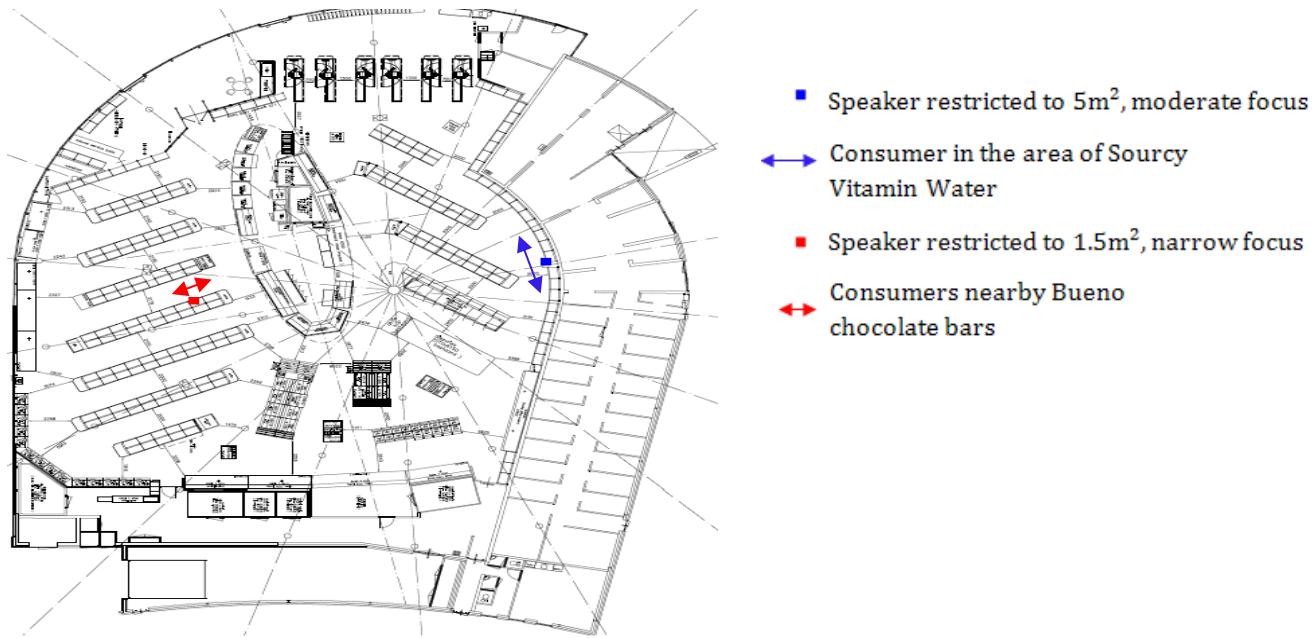


Figure 6: Location of distributed questionnaires on store map of Plus Supermarket Jongenotter.

The questionnaires of experiment 1 were the same as the questionnaires of experiment 2, only the brand name of the advertised product differed, see appendix 3. The self-reported data was collected during week 21, 22, 23, 24, 25, and 26. Sixty questionnaires were collected each week; thirty for experiment 1 and thirty for experiment 2. In total, 354 questionnaires were used for the self-reported data. Six questionnaires were deleted from the self-reported data due to incomplete answers.

	Special speaker on	Special speaker off
Experiment 1	89 questionnaires	88 questionnaires
Experiment 2	87 questionnaires	90 questionnaires

3.2. Measurements

The following measurements were used in order to test the hypotheses. In addition, some measurements were included to form an image about how the respondents perceived the music and product information during the field experiment. Furthermore, some additional measurements were included in order to control for their influence on the relationship between focused audio marketing and purchase intention. Moreover, some additional

measurements were also included to gain further insights about the store atmosphere and respondents. As closure of this section, a table is displayed with the Cronbach's Alfa of measurements which consisted multiple scales in order to test the reliability of these measurements.

3.2.1 Dependent Variables

Sales

The sales measurement was used to test hypotheses 1a. The expected positive influence of focused audio marketing on sales was investigated by using secondary data, sales data, on volume/day level, of the advertised products; Bueno chocolate bars and Sourcy Vitamin Water.

Purchase Intention

The purchase intention measurement was used to test hypothesis 1b, 3 and 5. The measurement was captured through primary data, self-reported data. It was based on the study done by Grewal, Krishnan, Baker and Borin (1998). The purchase intention towards the advertised products was based on the likelihood to consider buying the advertised product in the future. It was measured on a five-point scale ranging from (1) not at all likely to (5) extremely likely.

3.2.2 Independent Variable

Heard Focused Audio Marketing Message

This measurement was included in order to make sure whether the consumers heard the focused audio marketing messages or not if they were in the range of the focused audio marketing messages. The measurement was captured through primary data, self-reported data.

3.2.3 Process Measures

Store Atmosphere

The store atmosphere measurement was used to test hypothesis 2 and 3. The measurement was captured through primary data, self-reported data. It was adopted from the study done by Mattila and Wirtz (2001). The store atmosphere measurement consisted of seven bipolar measures and was coded on a five-point scale (unattractive/attractive,

uninteresting/interesting, bad/good, depressing/cheerful, dull/bright, uncomfortable/comfortable, unpleasant/pleasant).

Brand Awareness

The brand awareness measurement was used to test hypothesis 4 and 5. The measurement was captured through primary data, self-reported data. Moreover, brand awareness does not require brand recall when a brand is recognized at a store (Percy & Rossiter, 1992; Keller, 1993). Therefore, the emphasis in this research is on brand recognition regarding brand awareness. In addition, brand recognition relates to consumers' ability to confirm prior exposure to the brand when given the brand as a cue (Keller, 1993). Thus, consumers were asked to indicate whether they remember seeing advertisement of the advertised brands.

3.2.4 Perceived Music and Product Information

Pleasantness of Music

Consumers had to indicate whether they were aware of the music and to indicate their opinion about it (depending on whether they were aware of the music). The measurement was captured through primary data, self-reported data. It was adopted from research done by Dubé and Morin (2001), consisted of two bipolar measures and was coded on a five-point scale (unpleasant/pleasant, bad/good). The pleasantness of music measurement in the distributed questionnaires differed with respect to special speaker status (on vs. off). Consumers were asked to indicate their opinion about the music that is played *throughout the supermarket* in the weeks when the special speakers were off. In the weeks when the special speakers were on, consumers were asked to indicate their opinion about the music that is played *through the special speaker*. Hereby, it was possible to form an image about how the respondents perceived the music itself in the two conditions (on vs. off), see appendix 3 question 2.

Usability of Product Information

Consumers had to indicate whether they were aware of the product information and to indicate their opinion about it (depending on whether they were aware of the product information). The measurement was captured through primary data, self-reported data. It consisted of three bipolar measures and was coded on a five-point scale (annoying/helpful,

not nice/nice, not informative/ informative). The usability of product information measurement in the distributed questionnaires differed with respect to special speaker status (on vs. off), see appendix 3 question 3 (just like the pleasantness of music measurement described above). Hereby, it was possible to form an image about how the respondents perceived the product information itself in the two conditions (on vs. off)

3.2.5 Control Variables

Weather, Age and Gender

Based on the theory part of this study, it was expected that focused audio marketing will have an influence on the sales of the advertised products. In addition, the weather could have an influence on the sales of particular products (Murray, Muro, Finn & Leszczyc, 2010). Therefore, weather measurements (daily precipitation amount in mm, percentage of daily sunshine duration, and daily mean temperature in degrees Celsius) were controlled for their influence by using secondary data. The data regarding the weather was obtained from KNMI. KNMI is the Dutch national institute for weather, climate research and seismology.

In addition, it was expected that focused audio marketing will also influence the consumers' purchase intention regarding the advertised products. Moreover, the consumers' age and gender (Mittal & Kamakura, 2001) together with the weather (Murray, Muro, Finn & Leszczyc, 2010) might have an influence on the purchase intention of particular products. Therefore, measurements of weather, age and gender were controlled for their influence. The consumers' age and gender were captured through primary data, self-reported data.

3.2.6 Additional Measurements

Awareness of In-Store Audio in Supermarkets (in general)

The measurement about awareness of in-store audio in supermarkets was included in order to form a general image regarding the awareness of in-store audio in supermarkets. The measurement was captured through primary data, self-reported data. Consumers were asked to indicate their agreement with statements on a seven-point scale, ranging from (1) strongly disagree to (7) strongly agree regarding "during a trip to a supermarket..." (I typically pay attention to the background music in the store, I typically listen to the

background music in the store, I typically identify specific songs that are playing in the background, I typically listen to the information transmitted via the store audio system, I typically pay attention to brand-specific information transmitted via the store audio system).

Effectiveness of In-Store Audio

The measurement about effectiveness of in-store audio was included to function as added information with respect to how the consumers perceived the atmosphere of the supermarket. The measurement was captured through primary data, self-reported data. Consumers were asked to indicate their agreement with statements on a seven-point scale, ranging from (1) strongly disagrees to (7) strongly agree regarding “during a trip to this Plus supermarket...” (I enjoy the background music in the store very much, I find it fun to shop while listening to background music, I like the store's background music, I like to hear brand-specific information via the store's audio system, I find brand-related advertising transmitted via the store's audio system informative, I think that brand-specific information transmitted via the store's audio system is very useful).

In-Store Audio Compared to Other Supermarkets

The measurement about in-store audio compared to other supermarkets was included to function as added information with respect to how the consumers perceived the atmosphere of the supermarket. The measurement was captured through primary data, self-reported data. Consumers were asked to evaluate the Plus supermarket's background audio based on the background audio of other supermarkets on a seven-point scale, ranging from (1) much worse to (7) much better. The comparisons were made on the following: the quality of the songs played, the quality of the audio system, the atmosphere created by the audio system, the informativeness of the brand-related information transmitted, the usefulness of the brand-related information transmitted, the clarity of the brand-related information transmitted.

Opinion about the in-store audio

The measurement was captured through primary data, self-reported data. An open question regarding the in-store audio of the Plus supermarket was asked in order to form a better image of how the consumer perceived the in-store audio.

3.2.7 Cronbach's Alfa

Store Atmosphere	0.769
Pleasantness of Music	0.624
Usability of Product Information	0.716
Awareness of In-Store Audio in Supermarkets (in general)	0.734
Effectiveness of In-Store Audio	0.815
In-Store Audio Compared to Other Supermarkets	0.809

See appendix 4 for output

3.3. Analysis Techniques

In order to test the hypotheses, some analysis techniques were used. First, independent samples t-tests were performed regarding experiment 1 and experiment 2 on sales. By doing so, it was possible to determine whether the sales of the advertised products during the weeks when the special speakers were on differed with respect to when the special speakers were off. Moreover, multiple regressions were performed in order to determine how much the sales volume of the advertised products increased when the special speakers were on.

In order to generate insights regarding the influence of focused audio marketing on sales, the underlying mechanisms of this effect were investigated. The expected positive effects of focused audio marketing, via store atmosphere perceptions and brand awareness, on purchase intention, were investigated by using multiple regressions guided by the study of Baron and Kenny (1986). In addition, Sobel tests were performed in order to validate whether store atmosphere perceptions and brand awareness are real mediators of the relationship between focused audio marketing and purchase intention.

3.4. Pretest

The two experiments and the questionnaires were pretested in order to make sure that the investigation would run efficient without unexpected surprises. First, the loudness of the focused audio marketing messages and the music/ product information components were tested among sixty consumers of different ages; thirty for experiment 1 and thirty for

experiment 2. The proportion of male/ female consumers together with the age distribution was tried to keep the same in the pretests.

At the pretest of experiment 1, narrow focus, only 2 consumers (6.66%) perceived the focused audio marketing message as too loud. Furthermore, 80% of the consumers perceived the product information as informative and 73.33% of the consumers perceived the music as happy.

The majority of consumers, 60%, at the pretest of experiment 2, moderate focus, were shocked when they heard the loud unexpected focused audio marketing message. Therefore, the loudness of the focused audio marketing message was adjusted and a fade-in of four seconds was implemented at the beginning of the message. A fade-in is an audio engineering term for gradually increasing the sound level of a message. Furthermore, 66.66% of the consumers perceived the product information as informative and 70% of the consumers perceived the music as happy. After the adjustments of the focused audio marketing message, a new pretest consisted of thirty consumers was conducted. This time, only 10% of the consumers perceived the focused audio marketing as too loud. Moreover, 70% of the consumers perceived the product information as informative and 86.66% of the consumers perceived the music as happy.

Furthermore, the questionnaires were also pretested. Forty questionnaires were distributed to consumers during the pretests of the experiments; twenty questionnaires regarding experiment 1 and twenty regarding experiment 2. Consumers were asked to give feedback on the questionnaires. Feedback showed that the consumers did understand the questions and were not faced with any problem in completing the questionnaires.

4. Data Analysis and Results

This chapter provides the analysis and results of the investigation. First, the participants of this study will be briefly discussed. Second, the influence of focused audio marketing on purchase probability (sales and purchase intention) will be analyzed. Next, the underlying mechanisms of this effect will be investigated. Finally, additional information about the respondents and their perception of the music and product information during the field experiment will be provided.

4.1. Sample

The mean age of the 354 participating consumers (55.4% female and 44.6% male) was 41 years, see Table 2.

Age		N	Minimum	Maximum	Mean	Std. Deviation
Age		354	16	85	41,93	15,752
Valid N (listwise)		354				
Gender		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Female	196	55,4	55,4	55,4	
	Male	158	44,6	44,6	100,0	
	Total	354	100,0	100,0		

Table 2: Age and gender of participating consumers.

Furthermore, 176 consumers participated in experiment 1 (53.4% female, 46.6% male) and 178 consumers (57.3% female, 42.7% male) participated in experiment 2, see Table 3.

Experiment			Frequency	Percent	Valid Percent	Cumulative Percent
Experiment 1	Valid	Female	94	53,4	53,4	53,4
		Male	82	46,6	46,6	100,0
		Total	176	100,0	100,0	
Experiment 2	Valid	Female	102	57,3	57,3	57,3
		Male	76	42,7	42,7	100,0
		Total	178	100,0	100,0	

Table 3: Gender of participating consumers in experiments.

The mean age of the participating consumers in experiment 1 was 43 years and in experiment 2 was the mean age 40 years, see Table 4.

Experiment		N	Minimum	Maximum	Mean	Std. Deviation
Experiment 1	Age	176	16	85	43,57	16,365
	Valid N (listwise)	176				
Experiment 2	Age	178	16	82	40,30	14,990
	Valid N (listwise)	178				

Table 4: Age of participating consumers in experiments.

4.2. The Influence of Focused Audio Marketing on Purchase Probability

The influence of focused audio marketing on sales and purchase intention were combined in the construct of purchase probability. Therefore, the influence of focused audio marketing on sales and purchase intention will be respectively analyzed.

4.2.1 The Influence of Focused Audio Marketing on Sales

In experiment 1 (narrow focus), results showed a difference in the sales volume of Bueno chocolate bars when the special speaker restricted to an area of 1.5m² was on in relation to when it was off, see Figure 7.

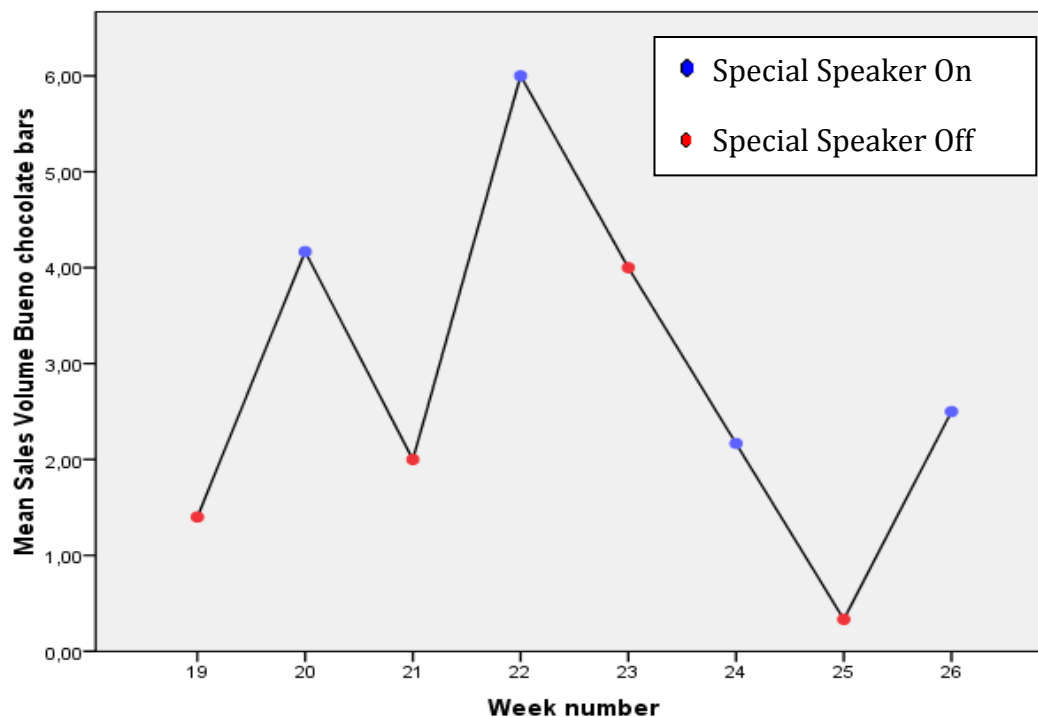


Figure 7: Sales volume Bueno chocolate bars.

In order to generate insights regarding this difference, an independent samples t-test was performed. Results showed a significant difference in the sales volume of Bueno chocolate bars when the special speaker restricted to an area of 1.5m² was off in relation to when it was on ($t=-2.802, p=0.008$), see appendix 5. When the special speaker restricted to an area of 1.5m² was **off**, an average of 1.95 Bueno chocolate bars was sold. However, when the special speaker restricted to an area of 1.5m² was **on**, an average of 3.71 Bueno chocolate bars was sold. Thus, the sales volume of Bueno chocolate bars increased on average with 190.3% when the special speaker restricted to an area of 1.5m² was on in relation to when it was off.

In experiment 2 (moderate focus), results showed a difference in the sales volume of Sourcy Vitamin Water when the special speaker restricted to an area of 5m² was on in relation to when it was off, see Figure 8.

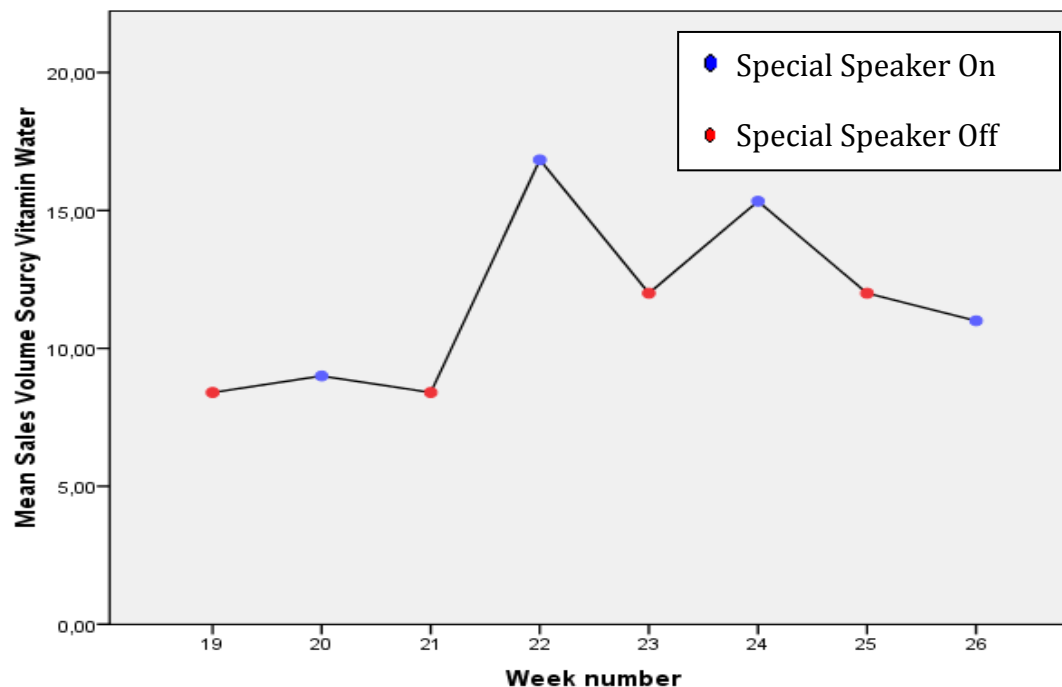


Figure 8: Sales volume Sourcy Vitamin Water.

In addition, the independent samples t-test showed a significant difference in the sales volume of Sourcy Vitamin Water when the special speaker restricted to an area of 5m² was off in relation to when it was on ($t=-2.304, p=0.026$), see appendix 5. When the special

speaker restricted to an area of 5m² was **off**, an average of 10.36 Sourcy Vitamin Water bottles were sold. When the special speaker restricted to an area of 5m² was **on**, an average of 13.04 Sourcy Vitamin Water bottles was sold. Thus, the sales volume of Sourcy Vitamin Water increased on average with 125.9% when the special speaker restricted to an area of 5m² was on in relation to when it was off.

Overall, results showed that the sales of the advertised products during the weeks when the special speakers were off, significantly differed with respect to when the special speakers were on. However, the weather could have an influence on the sales volume of the advertised products. Therefore, multiple regressions were performed in order to control for the influence of the weather (daily precipitation amount in mm, percentage of daily sunshine duration, and daily mean temperature in degrees Celsius).

In experiment 1, results showed that the sales volume significantly increased by 1.61 Bueno chocolate bars per day when the special speaker restricted to an area of 1.5m² was on in relation to when the special speaker was off ($\beta=1.610$, $p=0.010$), see Table 5 (see appendix 6 for SPSS output).

Variables	Sales, narrow focus		
	β	Std. Error	p
Special speaker on	1.610	0.594	0.010
Percentage of daily sunshine duration	0.008	0.012	0.474
Daily mean temperature (in degrees Celsius)	-0.275	0.095	0.006
Daily precipitation amount (in mm)	-0.114	0.072	0.124

Table 5: The influence of narrow focus audio marketing on sales.

In addition, the daily mean temperature had a significant negative effect on the sales volume of the Bueno chocolate bars ($\beta=-0.275$, $p=0.006$). Thus, it seemed that the sales volume of Bueno chocolate bars decreases with temperature. However, daily sunshine duration and daily precipitation amount had not a significant influence on the sales ($p=0.474$, $p=0.124$).

In experiment 2, results showed that the sales volume significantly increased by 3.62 Sourcy Vitamin Water bottles per day when the special speaker restricted to an area of 5m² was on in relation to when the special speaker was off ($\beta=3.620$, $p=0.002$), see Table 6 (see appendix 6 for SPSS output).

Variables	Sales, moderate focus		
	β	Std. Error	p
Special speaker on	3.620	1.099	0.002
Percentage of daily sunshine duration	0.036	0.021	0.102
Daily mean temperature (in degrees Celsius)	0.454	0.177	0.014
Daily precipitation amount (in mm)	0.007	0.134	0.956

Table 6: The influence of moderate focus audio marketing on sales.

In addition, the daily mean temperature had a significant positive effect on the sales volume ($\beta=0.454$, $p=0.014$). Thus, it seemed that the sales volume of Sourcy Vitamin Water increases with temperature. However, daily sunshine duration and daily precipitation amount had not a significant influence on the sales ($p=0.102$, $p=0.956$).

Overall, the results showed that the sales of the advertised products significantly increased due to the addition of focused audio marketing, even when I controlled for the weather. However, the addition of moderate focus audio marketing had a stronger influence on sales in relation to the addition of narrow focus audio marketing, when I controlled for the weather. Nevertheless, it could be stated that the addition of focused audio marketing increased the sales volume of the advertised products. **Consequently, I do not reject hypothesis 1a.**

4.2.2 The Influence of Focused Audio Marketing on Purchase Intention

In order to generate insights regarding the influence of focused audio marketing on sales, the underlying mechanism of this effect was investigated. Therefore, regressions were performed based on the influence of focused audio marketing on purchase intention, while controlling for the consumers' age and gender together with the weather (daily precipitation amount in mm, percentage of daily sunshine duration, and daily mean temperature in degrees Celsius). From now on I use heard focused audio marketing

message, which controls for the fact that some consumers had been exposed to it but not heard it. Therefore, it was possible to form a clear view about the effects of consumers' conscious processing of their exposure to the focused audio marketing messages. Thus, I did not made a distinction between consumers that did not hear the focused audio marketing message when the special speakers were on (unconsciously effects) vs. consumers that visited the store when special speakers were off. I considered modeling these two groups separately, but I only observed 14 consumers in the former group (unconsciously effects), which means I would not have enough observations to reliably estimate these fine-grained effects.

Experiment 1

Results showed that consumers in experiment 1 (narrow focus) displayed a higher purchase intention towards the advertised product if they heard the focused audio marketing message ($\beta=0.372, p=0.045$), see Table 7 (see appendix 7 for SPSS output).

Variables	Purchase intention, narrow focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.372	0.184	0.045
Male	-0.437	0.173	0.012
Age	-0.006	0.006	0.303
Percentage of daily sunshine duration	0.002	0.003	0.609
Daily mean temperature (in degrees Celsius)	-0.048	0.031	0.130
Daily precipitation amount (in mm)	-0.038	0.017	0.029

Table 7: The influence of narrow focus audio marketing on purchase intention.

Therefore, it could be stated that consumers become more likely to consider buying the advertised product in the future due to the addition of narrow focus audio marketing. Moreover, the consumers' gender had also a significant influence on the purchase intention towards the advertised product ($\beta=-0.437, p=0.012$). The purchase intention of female consumers towards the advertised product is higher in relation to male consumers. In addition, daily precipitation amount had a significant influence on the purchase intention towards the advertised product ($\beta=-0.038, p=0.029$). It seemed that consumers on days

without rain in relation to rainy days were more likely to consider buying the advertised product in the future. Thus, the consumers' purchase intention towards the advertised product decreases with precipitation amount. However, the consumers' age, percentage of daily sunshine duration, and daily mean temperature had not a significant influence on the purchase intention towards the advertised product ($p=0.303$, $p=0.609$, $p=0.130$).

Experiment 2

Results showed that consumers in experiment 2 (moderate focus) displayed a higher purchase intention towards the advertised product if they heard the focused audio marketing message ($\beta=0.599$, $p=0.002$), see Table 8 (see appendix 7 for SPSS output).

Variables	Purchase intention, moderate focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.599	0.195	0.002
Male	-0.389	0.185	0.037
Age	-0.011	0.006	0.087
Percentage of daily sunshine duration	-0.002	0.004	0.539
Daily mean temperature (in degrees Celsius)	-0.010	0.032	0.760
Daily precipitation amount (in mm)	0.007	0.019	0.690

Table 8: The influence of moderate focus audio marketing on purchase intention.

Therefore, it could be stated that consumers become more likely to consider buying the advertised product in the future due to the addition of moderate focus audio marketing. Moreover, the consumers' gender had also a significant influence on the purchase intention towards the advertised product ($\beta=-0.389$, $p=0.037$). Thus, the purchase intention of female consumers towards the advertised product is higher in relation to male consumers. However, the consumers' age, percentage of daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on the purchase intention towards the advertised product ($p=0.087$, $p=0.539$, $p=0.760$, $p=0.690$).

Overall, the addition of focused audio marketing restricted to an area of 5m²(moderate focus) had a stronger influence on the purchase intention in relation to the addition of focused audio marketing restricted to an area of 1.5m²(narrow focus). Nevertheless, the

addition of focused audio marketing restricted to an area of 1.5m² and 5m² had a significant positive influence on the consumers' purchase intention towards the advertised products. Thus, it could be stated that the addition of focused audio marketing increased the purchase intention towards the advertised products. **Consequently, I do not reject hypothesis 1b.**

Moreover, this sub-section showed that there could be an effect that may be mediated. The following paragraph discusses whether store atmosphere perceptions and brand awareness were mediators of the relationship between focused audio marketing and purchase intention.

4.3. Mediation Analyses

I conducted mediation analyses using Baron and Kenny's (1986) approach, see appendix 8 for details on the rationale behind Baron and Kenny steps as they are applied in my thesis. Based on sub-section 4.2.2, we already know that there could be an effect that may be mediated (Step 1). This section, section 4.3, analyzed step 2 and step 3 regarding store atmosphere (section 4.3.1) and brand awareness (section 4.3.2).

4.3.1 Mediation Analysis of Store Atmosphere

Step 2

The second step established whether the potential mediator (store atmosphere perceptions) was associated with the independent variable (focused audio marketing). Therefore, regressions were performed regarding experiment 1 and experiment 2 based on the influence of focused audio marketing on store atmosphere perceptions, while controlling for the consumers' age, gender and the weather (daily precipitation amount, daily sunshine duration, and daily mean temperature).

Experiment 1

Results showed that consumers in experiment 1 (narrow focus) displayed a higher evaluation of the store atmosphere if they heard the focused audio marketing message ($\beta=0.244$, $p=0.000$), see Table 9 (see appendix 9 for SPSS output).

Variables	Store atmosphere, narrow focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.244	0.066	0.000
Male	-0.060	0.062	0.335
Age	0.002	0.002	0.293
Percentage of daily sunshine duration	$0.8672 \cdot 10^{-4}$	0.001	0.943
Daily mean temperature (in degrees Celsius)	-0.017	0.011	0.127
Daily precipitation amount (in mm)	-0.019	0.006	0.003

Table 9: The influence of narrow focus audio marketing on store atmosphere.

Therefore, it could be stated that the addition of narrow focus audio marketing had a significant positive influence on the consumers' evaluation of the store atmosphere. Thus, the perception of the store atmosphere was associated with the addition of narrow focus audio marketing. Consequently, the consumers' perception of the store atmosphere could possibly mediate the relation between narrow focus audio marketing and purchase intention. In addition, daily precipitation amount had also a significant influence on the perception of the store atmosphere ($\beta=-0.019$, $p=0.003$). It seemed that consumers on days without rain in relation to rainy days were more likely to display a higher evaluation of the store atmosphere. However, the consumers' gender and age together with percentage of daily sunshine duration and daily mean temperature had not a significant influence on the consumers' evaluation of the store atmosphere ($p=0.335$, $p=0.293$, $p=0.943$ $p=0.127$).

Experiment 2

Results showed that the consumers' evaluation of the store atmosphere in experiment 2 (moderate focus) was not influenced by hearing the focused audio marketing message ($p=0.065$), see Table 10 (see appendix 9 for SPSS output).

Variables	Store atmosphere, moderate focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.154	0.083	0.065
Male	0.025	0.079	0.747
Age	0.004	0.003	0.126
Percentage of daily sunshine duration	0.000	0.002	0.862
Daily mean temperature (in degrees Celsius)	-0.027	0.013	0.044
Daily precipitation amount (in mm)	-0.008	0.008	0.323

Table 10: The influence of moderate focus audio marketing on store atmosphere.

Therefore, it could be stated that the addition of moderate focus audio marketing had not a significant influence on the consumers' evaluation of the store atmosphere. Consequently, the consumers' perception of the store atmosphere could not mediate the relation between moderate focus audio marketing and purchase intention. In addition, the consumers' gender and age together with percentage of daily sunshine duration and daily precipitation amount had also not a significant influence on the consumers' evaluation of the store atmosphere ($p=0.747$, $p=0.126$, $p=0.862$, $p=0.323$). However, daily mean temperature had a significant negative effect on the consumers' evaluation of the store atmosphere ($\beta=-0.027$, $p=0.044$). Thus, consumers' displayed a higher evaluation of the store atmosphere on colder days in relation to warmer days.

Overall, only the addition of narrow focus audio marketing (experiment 1) had an influence on how the consumers evaluated the store atmosphere. Thus, the perception of the store atmosphere was associated with the addition of narrow focus audio marketing.

Consequently, the consumers' perception of the store atmosphere could possibly mediate the relation between narrow focus audio marketing and purchase intention. **Consequently, I partly reject hypothesis 2 (Hypothesis 2 only holds for the addition of narrow focus audio marketing).**

In order to generate insights about this difference, independent samples t-tests were performed regarding experiment 1 and experiment 2 on effectiveness of in store audio and on in-store audio compared to other supermarkets.

Results showed a significant difference in the perceived effectiveness of in-store audio when the special speaker restricted to an area of 1.5m²(narrow focus) was off in relation to when it was on ($t=-2.132, p=0.034$), see appendix 10. The consumers evaluated the effectiveness of in-store audio higher when the special speaker was on in relation to when it was off. In addition, results showed a strong significant difference regarding in-store audio compared to other supermarkets when the special speaker restricted to an area of 1.5m² was off in relation to when it was on ($t=-5.215, p=0.000$), see appendix 11. Thus, the consumers evaluated the in-store audio compared to other supermarkets higher when the special speaker restricted to an area of 1.5m² was on in relation to when it was off.

However, results regarding experiment 2 showed not a significant difference in the perceived effectiveness of in-store audio when the special speaker restricted to an area of 5m² (moderate focus) was off in relation to when it was on ($t=-1.049, p=0.296$), see appendix 10. Thus, the consumers evaluated the effectiveness of in-store audio in the situation when the special speaker was on as good as in the situation when the special speaker was off. Furthermore, results showed also not a significant difference regarding in-store audio compared to other supermarkets when the special speaker restricted to an area of 5m² was off in relation to when it was on ($t=-1.922, p=0.056$), see appendix 11.

Step 3

The third step established whether the potential mediator (store atmosphere perceptions) was a significant predictor of the dependent variable (purchase intention), while controlling for the independent variable (focused audio marketing), brand awareness, consumers' age, gender and the weather (daily precipitation amount, daily sunshine duration, and daily mean temperature). However, based on step 2 we know that store atmosphere could not be a mediator in the relation between moderate focus audio marketing and purchase intention (experiment 2). Therefore, step 3 is only analyzed regarding the influence of narrow focus audio marketing (experiment1).

Results showed that the store atmosphere perceptions had a significant positive influence on purchase intention ($\beta=0.557, p=0.005$), see Table 11 (see appendix 12 for SPSS output).

Thus, consumers who evaluated the store atmosphere higher in relation to other consumers were more likely to consider buying the advertised product in the future.

Variables	Purchase intention, narrow focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.058	0.175	0.741
Store Atmosphere	0.557	0.194	0.005
Brand Awareness	0.925	0.168	0.000
Male	-0.277	0.158	0.082
Age	0.000	0.005	0.887
Percentage of daily sunshine duration	0.001	0.003	0.728
Daily mean temperature (in degrees Celsius)	-0.018	0.029	0.536
Daily precipitation amount (in mm)	-0.029	0.016	0.071

Table 11: The influence of store atmosphere on purchase intention, experiment 1.

Furthermore, the direct influence of heard the focused audio marketing message on purchase intention, become insignificant in this step ($p=0.741$). Thus, according to Baron and Kenny (1986), the perception of store atmosphere completely mediated the relation between heard focused audio marketing message and purchase intention. In addition, brand awareness had a strong significant influence on purchase intention ($\beta=0.925$, $p=0.000$), see section 4.3.2 for an in-depth analyses of brand awareness. However, the consumers' gender and age together with daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on purchase intention ($p=0.082$, $p=0.887$, $p=0.728$, $p=0.536$, $p=0.071$).

In addition, in order to validate the finding that store atmosphere perceptions completely mediated the relation between heard focused audio marketing message and purchase intention, a Sobel test was performed regarding experiment 1. The Sobel test was based on the formula displayed in Figure 9 below.

$$z = \frac{ab}{\sqrt{(b^2SE_a^2) + (a^2SE_b^2)}}$$

Figure 9: Sobel test formula.

Where a (0.244) was the regression coefficient and SEa (0.066) was the standard error, of the relationship between heard focused audio marketing message and perceived store atmosphere, see Table 9. Moreover, b (0.557) was the regression coefficient and SEb (0.194) was the standard error, of the relationship between perceived store atmosphere and purchase intention, see Table 11. Results showed a Sobel test statistic (z) of 2.268, corresponding to a two-tailed significance probability of 0.023. Thus, store atmosphere perceptions completely mediated the relation between heard focused audio marketing message and purchase intention.

Overall, robust evidence was found that in experiment 1 (narrow focus) store atmosphere perceptions mediated the relation between heard focused audio marketing message and purchase intention. In addition, based on step 2 we also know that store atmosphere perceptions in experiment 2 (moderate focus) could not be a mediator in the relation between heard focused audio marketing and purchase intention. **Consequently, I partly reject hypothesis 3 (Hypothesis 3 only holds for the addition of narrow focus audio marketing).**

4.3.2 Mediation Analysis of Brand Awareness

Step 2

The second step established whether the potential mediator (brand awareness) was associated with the independent variable (focused audio marketing). Since the brand awareness measurement was based on whether a consumer was able to recall seeing advertisement about the advertised brand, binary logistic regressions were performed regarding experiment 1 (narrow focus) and experiment 2 (moderate focus). The binary logistic regressions were based on the influence of focused audio marketing on brand awareness, while controlling for the consumers' age, gender and the weather (daily precipitation, daily sunshine duration, and daily mean temperature).

Experiment 1

When a consumer heard the focused audio marketing message in experiment 1 (narrow focus), it significantly increased the estimated log-odds of recall seeing advertisement about

the advertised product ($\beta=0.900$, $p=0.012$), see Table 12 (see appendix 13 for SPSS output). In addition, the odds ratio ($\text{Exp}(B)=2.460$), was greater than 1. Thus, when consumers heard the narrow focus audio marketing message, they were more likely to recall seeing advertisement about the advertised product in relation to when they did not heard it. Consequently, brand awareness was associated with the addition of narrow focus audio marketing. Therefore, brand awareness could possibly mediate the relation between narrow focus audio marketing and purchase intention.

Variables	Brand awareness, narrow focus			
	β	Std. Error	Exp(B)	p
Heard Focused Audio Marketing Message	0.900	0.357	2.460	0.012
Male	-0.638	0.332	0.528	0.054
Age	-0.030	0.011	0.970	0.005
Percentage of daily sunshine duration	0.004	0.007	1.004	0.561
Daily mean temperature (in degrees Celsius)	-0.110	0.063	0.896	0.081
Daily precipitation amount (in mm)	0.012	0.034	1.012	0.734

Table 12: The influence of narrow focus audio marketing on brand awareness.

The consumers' age had a significant negative effect on the estimated log-odds of recall seeing advertisement about the advertised product ($\beta=-0.030$, $p=0.005$). In addition, the odds ratio ($\text{Exp}(B)=0.970$), was smaller than 1. Thus, for an additional year in age, the odds of recall seeing advertisement was lower by a factor of 0.970. In other words, younger consumers were more likely to recall seeing advertisement about the advertised product in relation to older consumers. However, the consumers' gender together with daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on brand awareness ($p=0.054$, $p=0.561$, $p=0.081$, $p=0.734$).

Experiment 2

When a consumer heard the focused audio marketing message in experiment 2 (moderate focus), it significantly increased the estimated log-odds of recall seeing advertisement about the advertised product ($\beta=1.109$, $p=0.001$), see Table 13 (see appendix 13 for SPSS output). In addition, the odds ratio ($\text{Exp}(B)=3.031$), was greater than 1. Thus, when consumers

heard the moderate focus audio marketing message, they were more likely to recall seeing advertisement about the advertised product in relation to when they did not heard it. Consequently, brand awareness was associated with the addition of moderate focus audio marketing. Therefore, brand awareness could possibly mediate the relation between moderate focus audio marketing and purchase intention.

Variables	Brand awareness, moderate focus			
	β	Std. Error	Exp(B)	p
Heard Focused Audio Marketing Message	1.109	0.349	3.031	0.001
Male	-0.215	0.332	0.806	0.517
Age	-0.037	0.012	0.964	0.003
Percentage of daily sunshine duration	0.002	0.007	1.002	0.765
Daily mean temperature (in degrees Celsius)	0.001	0.057	1.001	0.985
Daily precipitation amount (in mm)	0.014	0.033	1.014	0.665

Table 13: The influence of moderate focus audio marketing on brand awareness.

The consumers' age had a significant negative effect on the estimated log-odds of recall seeing advertisement about the advertised product ($\beta=-0.037$, $p=0.003$). In addition, the odds ratio ($\text{Exp}(B)=0.964$), was smaller than 1. Thus, for an additional year in age, the odds of recall seeing advertisement was lower by a factor of 0.964. In other words, younger consumers were more likely to recall seeing advertisement about the advertised product in relation to older consumers. However, the consumers' gender together with daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on brand awareness ($p=0.517$, $p=0.765$, $p=0.985$, $p=0.665$).

Overall, the addition of moderate focus audio marketing (experiment 2) had a stronger influence on brand awareness in relation to the addition of narrow focus audio marketing (experiment 1). Nevertheless, the addition of focused audio marketing restricted to an area of 1.5m^2 (narrow focus) and 5m^2 (moderate focus) had a significant positive influence on the brand awareness of the advertised products. **Consequently, I do not reject hypothesis 4.**

Step 3

The third step established whether the potential mediator (brand awareness) was a significant predictor of the dependent variable (purchase intention), while controlling for the independent variable (focused audio marketing), store atmosphere, consumers' age, gender and the weather (daily precipitation amount, daily sunshine duration, and daily mean temperature).

Experiment 1

Results showed that brand awareness had a strong significant positive influence on purchase intention ($\beta=0.925$, $p=0.000$), see Table 14 (see appendix 14 for SPSS output). Thus, consumers who were able to recall seeing advertisement about the advertised product were more likely to consider buying the advertised product in the future in relation to those who were not able to recall seeing advertisement. Furthermore, the direct influence of heard focused audio marketing message on purchase intention, become insignificant in this step ($p=0.741$). Thus, according to Baron and Kenny (1986), brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention. In addition, store atmosphere had also a significant influence on purchase intention ($\beta=0.557$, $p=0.005$), see previous section 4.3.1 for an in-depth analyses of store atmosphere. However, the consumers' gender and age together with daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on purchase intention ($p=0.082$, $p=0.887$, $p=0.728$, $p=0.536$, $p=0.071$).

Variables	Purchase intention, narrow focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.058	0.175	0.741
Store Atmosphere	0.557	0.194	0.005
Brand Awareness	0.925	0.168	0.000
Male	-0.277	0.158	0.082
Age	0.000	0.005	0.887
Percentage of daily sunshine duration	0.001	0.003	0.728
Daily mean temperature (in degrees Celsius)	-0.018	0.029	0.536
Daily precipitation amount (in mm)	-0.029	0.016	0.071

Table 14: The influence of brand awareness on purchase intention, experiment 1.

In addition, in order to validate the finding that brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention, a Sobel test was performed regarding experiment 1. The Sobel test was based on the formula displayed in Figure 9 (see page 38).

Where a (0.900) was the regression coefficient and SEa (0.357) was the standard error, of the relationship between heard focused audio marketing message and brand awareness, see Table 12. Moreover, b (0.925) was the regression coefficient and SEb (0.168) was the standard error, of the relationship between brand awareness and purchase intention, see Table 14. Results showed a Sobel test statistic (z) of 2.292, corresponding to a two-tailed significance probability of 0.022. Thus, brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention.

Experiment 2

Results showed that brand awareness had a significant positive influence on purchase intention ($\beta=0.881$, $p=0.000$), see Table 15 (see appendix 14 for SPSS output). Thus, consumers who were able to recall seeing advertisement about the advertised product were more likely to consider buying the advertised product in the future in relation to those who were not able to recall seeing advertisement.

Variables	Purchase intention, moderate focus		
	β	Std. Error	p
Heard Focused Audio Marketing Message	0.335	0.187	0.076
Store Atmosphere	0.288	0.169	0.091
Brand Awareness	0.881	0.185	0.000
Male	-0.357	0.172	0.039
Age	-0.006	0.006	0.367
Percentage of daily sunshine duration	-0.003	0.003	0.414
Daily mean temperature (in degrees Celsius)	-0.002	0.030	0.941
Daily precipitation amount (in mm)	0.007	0.017	0.684

Table 15: The influence of brand awareness on purchase intention, experiment 2.

Furthermore, the direct influence of heard focused audio marketing message on purchase intention, become insignificant in this step ($p=0.076$). Thus, according to Baron and Kenny (1986), brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention. In addition, the consumers' gender had a significant influence on the purchase intention towards the advertised product ($\beta=-0.357$, $p=0.039$). Consequently, the purchase intention of female consumers towards the advertised product is higher in relation to male consumers. However, store atmosphere perceptions had not a significant influence on purchase intention ($p=0.091$). Thus, consumers' purchase intention towards the advertised product was not influenced by how they evaluated the store atmosphere. In addition, the consumers' age, daily sunshine duration, daily mean temperature, and daily precipitation amount had not a significant influence on purchase intention ($p=0.367$, $p=0.414$, $p=0.941$, $p=0.684$).

In order to validate the finding that brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention, a Sobel test was performed regarding experiment 2. The Sobel test was based on the formula displayed in Figure 9 (see page 38). Where a (1.109) was the regression coefficient and SEa (0.349) was the standard error, of the relationship between heard focused audio marketing message and brand awareness, see Table 13. Moreover, b (0.881) was the regression coefficient and SEb (0.185) was the standard error, of the relationship between brand awareness and purchase intention, see Table 15. Results showed a Sobel test statistic (z) of 2.643, corresponding to a two-tailed significance probability of 0.008. Thus, brand awareness completely mediated the relation between heard focused audio marketing message and purchase intention.

Overall, brand awareness in experiment 1 (narrow focus) had a stronger influence on purchase intention in relation to brand awareness in experiment 2 (moderate focus). Nevertheless, robust evidence was found that in experiment 1 and experiment 2, brand awareness mediated the relation between heard focused audio marketing message and purchase intention. **Consequently, I do not reject hypothesis 5.**

4.4 Additional Information

Additional Information about the Music and Product Information during the Field Experiment

From the 176 consumers who participated in experiment 1(narrow focus), 90 were exposed to the narrow focus audio marketing message. From these 90 consumers 88.9% did actually hear the narrow focus audio marketing message, see appendix 15. In addition, from the 90 consumers 54.4% were aware of the music and 66.7% were aware of the product information which was transmitted through the special speaker, see appendix 15. Moreover, from the 176 consumers who participated in experiment 1(narrow focus), 86 were not exposed to the focused audio marketing. From these 86 consumers 43% were aware of the music and 47.7% were aware of the product information which was transmitted throughout the supermarket, see appendix 15.

Additionally, from the 178 consumers who participated in experiment 2(moderate focus), 88 were exposed to the moderate focus audio marketing message. From these 88 consumers 95.5% did actually hear the moderate focus audio marketing message, see appendix 15. In addition, from the 88 consumers 59.1% were aware of the music and 56.8% were aware of the product information which was transmitted through the special speaker, see appendix 15. Moreover, from the 178 consumers who participated in experiment 2(moderate focus), 90 were not exposed to the focused audio marketing. From these 90 consumers 37.8% were aware of the music and product information which was transmitted throughout the supermarket, see appendix 15.

Furthermore, there were some doubts that the effects of focused audio marketing on purchase intentions are due to potential differences in the music and product information itself. Therefore, the pleasantness of music and usability of product information were tested, within the experiments and between the experiments.

The music transmitted through the special speakers (narrow focus and moderate focus) did not significantly differed from the music transmitted throughout the supermarket ($t=0.965, p=0.337$; $t=-1.213, p=0.228$), see Figure 10 (see appendix 16 for SPSS output).

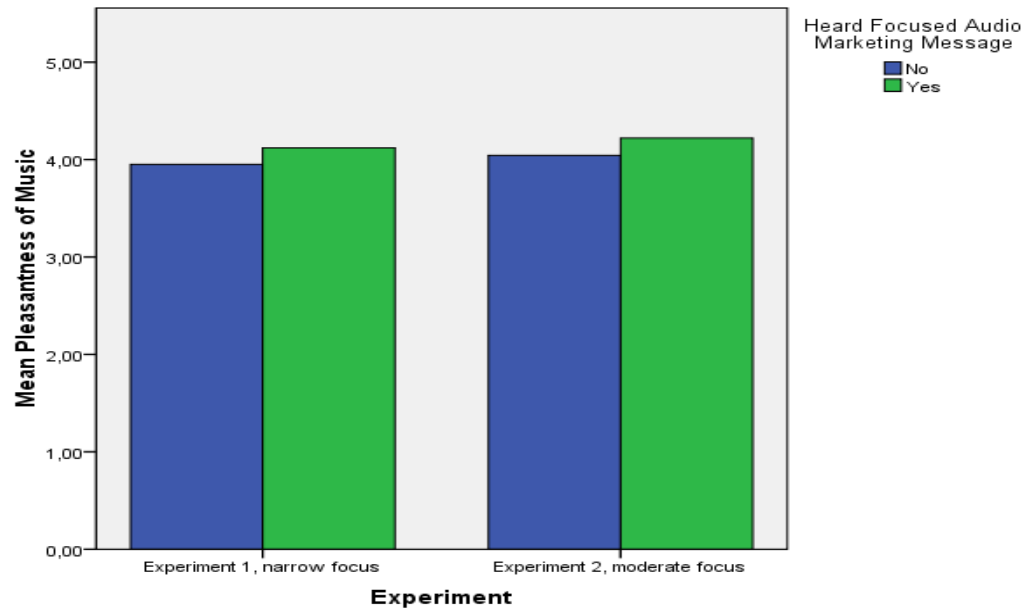


Figure 10: Pleasantness of music in experiment 1 and experiment 2.

In addition, the usability of product information transmitted through the special speakers (narrow focus and moderate focus) did not significantly differ from the product information transmitted throughout the supermarket ($t=-1.538$, $p=0.127$; $t=-1.422$, $p=0.159$), see Figure 11 (see appendix 16 for SPSS output).

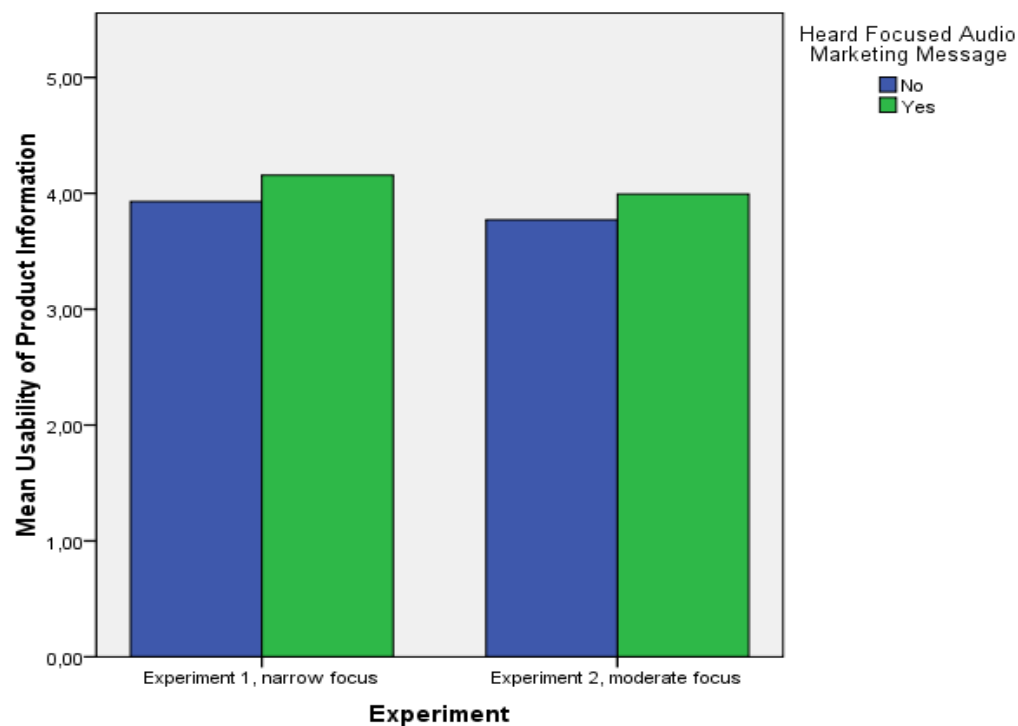


Figure 11: Usability of product information in experiment 1 and experiment 2.

Moreover, the music and product information transmitted through the special speakers (narrow focus and moderate focus) did not significantly differ from each other ($t=-0.670$, $p=0.504$; $t=1.147$, $p=0.254$), see appendix 16.

Overall, consumers perceived the music and product information transmitted through the special speakers as good as the transmitted music and product information throughout the supermarket. Furthermore, the music and product information transmitted through the special speakers did not significantly differ from each other. However, consumers displayed a higher awareness of the music and product information which were transmitted through the special speakers in relation to the music and product information transmitted throughout the store.

Additional Information about the Sample

The mean score regarding the awareness of in-store audio *during a trip to a supermarket* among the 354 participated consumers was 3.94, see Table 16.

	N	Minimum	Maximum	Mean	Std. Deviation
Awareness of in-store audio in supermarkets	354	1,00	7,00	3,9407	1,15505
Valid N (listwise)	354				

Table 16: Awareness of in-store audio during a trip to a supermarket.

Since the awareness of in-store audio in supermarkets was based on a seven-point scale, ranging from (1) strongly disagree to (7) strongly agree, it could be stated that consumers were in general quite neutral regarding their awareness of music and product information during a trip to a supermarket.

5. Conclusion

This chapter discusses the findings of this research. The general findings of this research will be presented, followed by the academic contribution and the managerial implications. Finally, the research's limitations and directions for future research will be discussed.

5.1. General Discussion

This research provides interesting insights regarding the influence of focused audio marketing on consumer behavior. The research problem questioned the effects of focused audio marketing on consumers' behavior in a retail environment. Since most parts of the conceptual models turned out as expected, see Table 17, the addition of focused audio marketing can be reasoned as effective.

Hypotheses	Supported/not supported
H1a: The addition of focused audio marketing will increase the sales volume of the advertised products.	Supported
H1b: The addition of focused audio marketing has a positive influence on the consumers' purchase intention towards the advertised products.	Supported
H2: The addition of focused audio marketing has a positive influence on the atmosphere of the supermarket.	Only supported for the addition of narrow focus audio marketing
H3: The relationship between focused audio marketing and purchase intention is mediated by the atmosphere of the supermarket.	Only supported for the addition of narrow focus audio marketing
H4: The addition of focused audio marketing has a positive influence on the brand awareness of the advertised products.	Supported
H5: The relationship between focused audio marketing and purchase intention is mediated by the brand awareness of the advertised products.	Supported

Table 17: Results.

The study's field experiment tested the influence of focused audio marketing on sales and purchase intention regarding products which were advertised by using special speakers. The degree of focused audio marketing was manipulated (narrow focus vs. moderate focus), as well as the speaker status (special speakers on vs. special speakers off). Therefore, it is possible to make inferences about the influence of the degree of focused audio marketing, as well as focused audio marketing in general with respect to sales and purchase intention.

Sales

The addition of moderate focus audio marketing (restricted to an area of 5m²) has a stronger influence on sales in relation to narrow focus audio marketing (restricted to an area of 1.5m²). Nevertheless, the results show that the sales of the advertised products increases due to the addition of narrow and moderate focus audio marketing. Consequently, it could be stated that the addition of focused audio marketing has a positive influence on the sales of products which are advertised by these tools.

Purchase Intention

In order to generate insights regarding the influence of focused audio marketing on sales, the underlying mechanisms of this effect are investigated.

First, the addition of moderate focus audio marketing (restricted to an area of 5m²) has a stronger influence on purchase intention in relation to the addition of narrow focus audio marketing (restricted to an area of 1.5m²). Nevertheless, the addition of focused audio marketing has a positive influence on the consumers' purchase intention towards the advertised products. Thus, it could be stated that the addition of focused audio marketing has a positive influence on the purchase intention towards products which are advertised by these tools.

Second, robust evidence shows that store atmosphere perceptions mediate the relation between narrow focus audio marketing and purchase intention. However, store atmosphere perceptions is not a mediator in the relation between moderate focus audio marketing and purchase intention. This is due to the fact that moderate focus audio marketing has not an influence on how consumers perceive a store atmosphere.

Consequently, it could be stated that only the addition of narrow focus audio marketing has a positive influence on how consumers perceive a store atmosphere and as a result display a higher purchase intention towards products which are advertised by this tool.

Third, robust evidence shows that brand awareness mediates the relation between narrow focus audio marketing and purchase intention. Moreover, brand awareness is also a mediator in the relation between moderate focus audio marketing and purchase intention. However, the addition of moderate focus audio marketing had a stronger influence on brand awareness in relation to the addition of narrow focus audio marketing. Nevertheless, robust evidence shows that brand awareness is an important mediator in the relation between focused audio marketing and purchase intention. Therefore, it could be stated that the addition of focused audio marketing has a positive influence on the brand awareness of products which are advertised by these tools and as a result improves the purchase intention towards these products.

Overall, it appears that the addition of focused audio marketing is an effective way to influence the behavior of consumers in a retail environment.

5.2. Academic Contribution

The study's findings provide empirical contribution to the prevailing atmospheric literature. Previous studies find that consumer behaviors in a store are influenced via atmospherics. An important element of the store atmosphere is music. Studies find that music has an influence on shopping intention, perceived quality, and consumption amount. However, these studies are mainly based on broad audio marketing, audio played throughout the store, and/or only music is used to influence the behavior of consumers.

The effects of focused audio marketing, music supported with product information played in a restricted area, on consumer behavior has not been investigated. This gap is covered in this study. Results show that a different degree of focused audio marketing (moderate focus or narrow focus) has different effects on consumers. Only narrow focus audio marketing has an influence on how consumers evaluate a store atmosphere. However, moderate focus

audio marketing has a stronger influence on the sales and purchase intention of a particular product in relation to narrow focus audio marketing.

Moreover, since the addition of focused audio marketing in a supermarket could be seen as an added component to its atmosphere, the results finds support that the atmosphere of a store has in some cases more influence on a purchase decision than the product itself (Kotler, 1973).

Furthermore, the addition of focused audio marketing increases the consumers' attention to the brands of the advertised products. In addition, consumers who are exposed to the focused audio marketing messages displays a higher brand awareness of the advertised products in relation to consumers who are not exposed to it. In turn, the brand awareness has a positive influence on the purchase intention towards the advertised products. Thus, the findings support that consumers' attention towards a brand is associated with brand awareness (Ye & Raaij, 2004). Moreover, the majority of consumers choose indeed a brand in a store based on a simple heuristics e.g. brand awareness (Percy & Rossiter, 1992; Keller, 1993).

5.3. Managerial Implications

The competition among supermarkets on the Dutch market is very intense, especially during the last decade. Moreover, Albert Heijn (grocery retail market leader in the Netherlands) has just recently started a new price war. Kotler (1973) suggests that retail stores could use atmospherics as a competitive tool. Consequently, improvements to the atmosphere could be a determining factor for supermarkets to overcome the upcoming price war.

Results shows that the addition of narrow focus audio marketing has a positive influence on how consumers evaluate a store atmosphere. Consumers who are exposed to the narrow focus audio marketing message displays a higher evaluation of the store atmosphere in relation to consumers who are not exposed to it. Thus, the addition of narrow focus audio marketing could be a determining factor for supermarkets to overcome the upcoming price war. Furthermore, narrow focus audio marketing has also a positive influence on the brand awareness of the advertised products, which in turn has a positive influence on the

purchase intention towards that particular product. Thus, the addition of narrow focus audio marketing (special speaker restricted to an area of 1.5m²) is an interesting tool for supermarkets to improve the atmosphere of the store and at the same time to stimulate the purchase intention of particular products.

However, the addition of moderate focus audio marketing has a stronger influence on the sales and purchase intention in relation to the addition of narrow focus audio marketing. Thus, if the goal of a supermarket is only to stimulate sales and purchase intention of particular products, it is recommended to implement moderate focus audio marketing (special speaker restricted to an area of 5m²). Moreover, moderate focused audio marketing is also interesting for Fast Moving Consumer Goods (FMCG) companies to stimulate the brand awareness of their products and to boost the sales. The addition of moderate focus audio marketing has a stronger influence on brand awareness in relation to the addition of narrow focus audio marketing. The special speaker restricted to an area of 5m² could for example be placed at a special display in a supermarket. In addition, moderate focus audio marketing is especially interesting for new brands to build brand awareness.

Overall, this study shows that the addition of focused audio marketing is an interesting opportunity for supermarkets and FMCG companies.

5.4. Limitations and Directions for Future Research

Due to time constraints and logistic reasons it was not feasible to move the special speakers around. Therefore, the advertised products are chosen with the following criterion in mind: the advertised products have comparable prices, comparable audio content, serve same age group, and may not have a price discount during the experiments. However, since the special speakers were not moved around, potential differences between the experimental designs could have an influence on the results of this research. Therefore, it is highly recommended for future research to move the special speakers around to eliminate potential differences.

Furthermore, future research should measure the influence of focused audio marketing on the consumers' internal state at a micro level (mood change due to exposure of focused audio marketing). In the beginning of this study a mood measurement was included. However, it turned out that the mood measurement was measured in an inappropriate way, on a macro level (current mood), and is therefore excluded from the study. Thus, future research should measure the mood of a consumer before and after the exposure of focused audio marketing to get a reliable view of the influence of focused audio marketing on the consumers' internal state change.

In addition, this study uses Baron and Kenny's method for mediation analysis just like the majority of previous research. However, Baron and Kenny's method for mediation analysis has been criticized in more recent research (Zhao, Lynch & Chen, 2010). A better approach would have been a Structural Equation Model (SEM), but that technical complexity would be much higher (Zhao, Lynch & Chen, 2010; Iacobucci, 2010). Nevertheless, future research should adopt the SEM approach for mediation analysis because this approach is superior to Baron and Kenny's. The SEM approach estimates everything simultaneously instead of assuming that the equations in Baron and Kenny's approach (Step 1–3) are independent (Zhao, Lynch & Chen, 2010; Iacobucci, 2010).

Moreover, the effects in this study maybe worked because only 2 brands in the supermarket had focused audio marketing. If many brands start having it, two effects will occur: (i) it can be quite irritating for consumers to constantly hear focused audio marketing messages about different brands as they proceed through the shelves, having a negative impact on store atmosphere perceptions, (ii) message competition: it will be more difficult for consumers to process all these focused audio marketing messages as they will compete with each other, reducing the effect on brand awareness and possibly on sales. Thus, if more brands are advertised by focused audio marketing, the just outlined managerial implications would be overestimated. Therefore, future research should investigate the optimum amount of special speakers in a supermarket by varying the amount of special speakers and its influence on store atmosphere perceptions, brand awareness and sales.

Consequently, such an investigation would provide valuable insights with respect to the influence of focused audio marketing on consumer behavior.

Further, this study showed that the addition of narrow focus audio marketing has a positive influence on store atmosphere perceptions. In addition, store atmosphere perceptions have an influence on the store's overall merchandise quality perception (Baker, Grewal & Parasuraman, 1994; Baker, Parasuraman, Grewal & Voss 2002). Thus, the addition of narrow focus audio marketing on a particular product could stimulate the sales of other products as well. Therefore, future research should not only focus on the sales of products which are advertised by focused audio marketing but also on the sales of other products.

Appendices

Appendix 1

Experiment 1, Narrow Focus

Speaker restricted to an area of 1.5m²



Experiment 2, Moderate Focus

Speaker restricted to an area of 5m²



Appendix 2

Experiment 1, Narrow Focus

Bueno chocolate bars at the sweet aisle

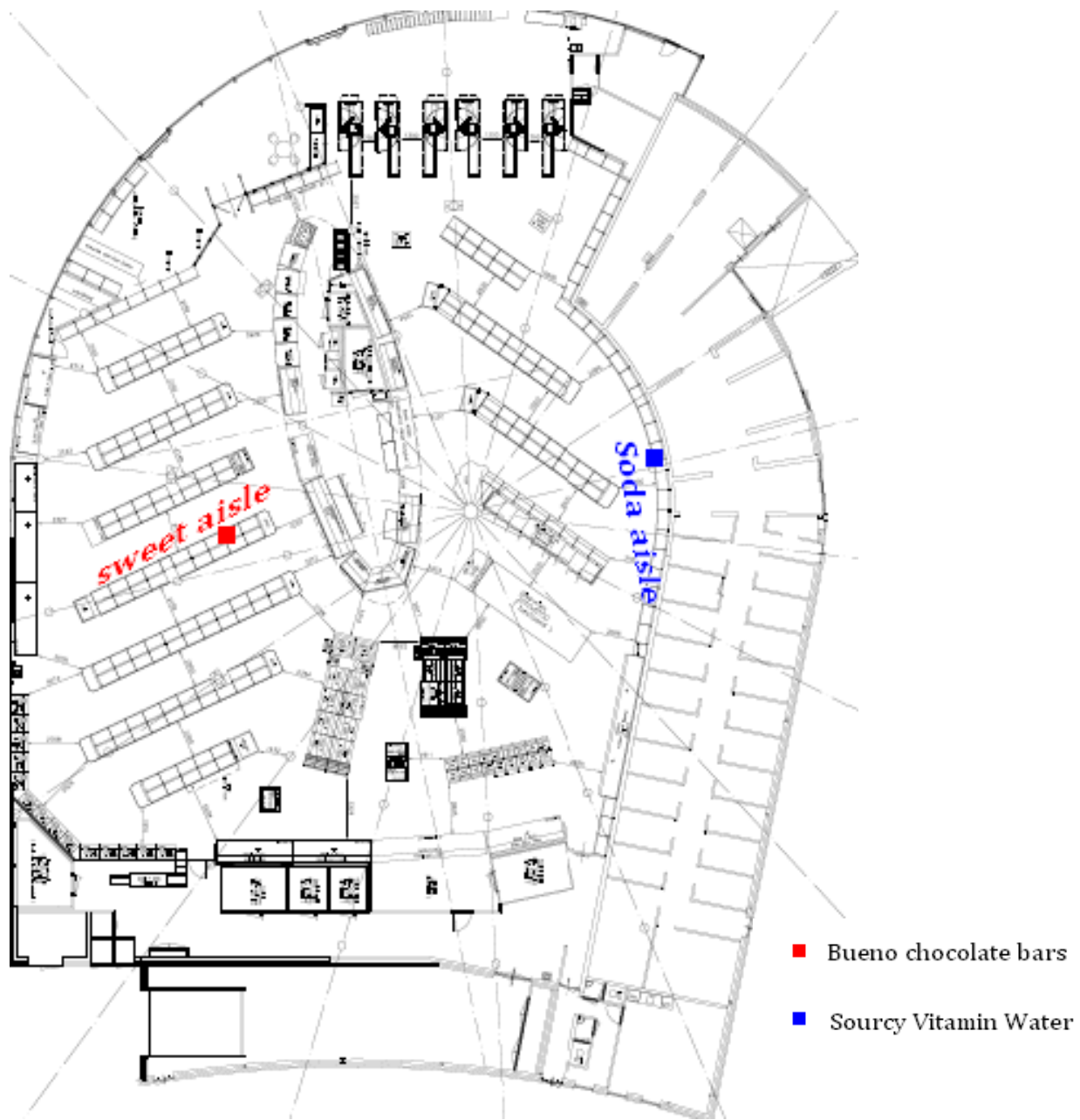


Experiment 2, Moderate Focus

Sourcy Vitamin Water at soda aisle



Location of Bueno chocolate bars and Sourcy Vitamin Water on store level



Appendix 3

English translation of distributed questionnaires regarding experiment 1, special speaker on

Note that the questionnaires of experiment 1 were the same as the questionnaires of experiment 2, only the brand name of the advertised product differed.

1. Did you hear today an advertising message about Bueno chocolate bars while being in the store?

Yes

No

2. Please indicate your opinion about the music that is played through the special speaker. [If speaker was off the question was “Please indicate your opinion about the music that is played throughout the supermarket”]

I am not aware of this

I am aware of this, and it is:

Unpleasant Pleasant

Bad Good

3. Please indicate your opinion about the product information that is played through the special speaker. [If speaker was off the question was “Please indicate your opinion about the product information that is played throughout the supermarket”]

I am not aware of this

I am aware of this, and it is:

Annoying Helpful

Not nice Nice

Not informative Informative

4. Please indicate your opinion about the store environment of this Plus supermarket on the following scales.

Unattractive Attractive

Uninteresting Interesting

- Bad o o o o o Good
- Depressing o o o o o Cheerful
- Dull o o o o o Bright
- Uncomfortable o o o o o Comfortable
- Unpleasant o o o o o Pleasant

5. Please indicate your agreement or disagreement with each of the following statements:

1 = Strongly disagree, 2 = Disagree; 3 = Somewhat Disagree; 4 = Neither agree nor disagree; 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree.

During a trip to a supermarket...	1	2	3	4	5	6	7
...I typically pay attention to the background music in the store.							
...I typically listen to the background music in the store.							
...I typically identify specific songs that are playing in the background.							
...I typically listen to the information transmitted via the store audio system.							
...I typically pay attention to brand-specific information transmitted via the store audio system.							

6. Please indicate your agreement or disagreement with each of the following statements:

1 = Strongly disagree, 2 = Disagree; 3 = Somewhat Disagree; 4 = Neither agree nor disagree; 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree.

During a trip to this Plus supermarket...	1	2	3	4	5	6	7
...I enjoy the background music in the store very much.							
...I find it fun to shop while listening to background music							
...I like the store's background music.							
...I like to hear brand-specific information via the store's audio system.							
...I find brand-related advertising transmitted via the store's audio system informative.							
...I think that brand-specific information transmitted via the store's audio system is very useful.							

7. Compared to other supermarkets, how would you evaluate this Plus supermarket's background audio (music and brand-related information transmitted via audio)?

1 = Much worse; 2 = Worse; 3 = Somewhat worse; 4 = About the same; 5 = Somewhat better; 6 = Better; 7 = Much better

	1	2	3	4	5	6	7
The quality of the songs played.							
The quality of the audio system (i.e. clarity, sound crispiness).							
The atmosphere created by the audio system (volume level, adequacy with the shopping experience...).							
The informativeness of the brand-related information transmitted.							
The usefulness of the brand-related information transmitted.							
The clarity of the brand-related information transmitted.							

8. Please give your opinion about the audio (music and brand-related information transmitted via audio) used in this store?

.....

9. Do you recall seeing advertisement about Bueno chocolate bars? (e.g. TV commercial)

Yes

No

10. How likely is it that you will consider buying Bueno chocolate bar in the future?

Not at all likely Extremely likely

11. What is your gender?

Male

Female

12. What is your age?

..... Years

Appendix 4

Scale: Store Atmosphere

Reliability Statistics

Cronbach's Alpha	N of Items
,769	7

Scale: Awareness of In-Store Audio in Supermarkets (in general)

Reliability Statistics

Cronbach's Alpha	N of Items
,734	5

Scale: Pleasantness of Music

Reliability Statistics

Cronbach's Alpha	N of Items
,624	2

Scale: Effectiveness of In-Store Audio

Reliability Statistics

Cronbach's Alpha	N of Items
,815	6

Scale: Usability of Product Information

Reliability Statistics

Cronbach's Alpha	N of Items
,716	3

Scale: In-Store Audio Compared to Other Supermarkets

Reliability Statistics

Cronbach's Alpha	N of Items
,809	6

Appendix 5

Experiment 1, Narrow Focus

Group Statistics^a

	Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
Sales Volume Bueno	Off	22	1,9545	1,83815	,39189
chocolate bars Per Day	On	24	3,7083	2,34945	,47958

a. Experiment = Experiment 1

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Sales Volume Bueno Chocolate Bars Per Day	Equal variances assumed	1,569	,217	-2,802	44	,008	-1,75379	,62600
	Equal variances not assumed			-2,832	42,982	,007	-1,75379	,61934

a. Experiment = Experiment 1

Experiment 2, Moderate Focus

Group Statistics^a

	Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
Sales Volume Sourcy	Off	22	10,3636	3,88582	,82846
Vitamin Water Per Day	On	24	13,0417	3,98343	,81312

a. Experiment = Experiment 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
		Sales Volume Sourcy Vitamin Water Per Day	Equal variances assumed	,169	,683	-2,304	44	,026
	Equal variances not assumed			-2,307	43,819	,026	-2,67803	1,16082

a. Experiment = Experiment 2

Appendix 6

Experiment 1, Narrow Focus

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,991	1,782		2,240	,031		
	Special speaker on	1,610	,594	,357	2,709	,010	,928	1,077
	Percentage of daily sunshine duration	,008	,012	,109	,722	,474	,713	1,402
	Daily mean temperature (degrees Celsius)	-,275	,095	-,378	-2,877	,006	,937	1,068
	Daily precipitation amount (mm)	-,114	,072	-,231	-1,571	,124	,745	1,342

a. Dependent Variable: Sales Volume Bueno chocolate bars Per Day

Experiment 2, Moderate Focus

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,863	3,296		-,262	,795		
	Special speaker on	3,620	1,099	,444	3,293	,002	,928	1,077
	Percentage of daily sunshine duration	,036	,021	,257	1,673	,102	,713	1,402
	Daily mean temperature (degrees Celsius)	,454	,177	,344	2,568	,014	,937	1,068
	Daily precipitation amount (mm)	,007	,134	,008	,055	,956	,745	1,342

a. Dependent Variable: Sales Volume Sourcy Vitamin Water Per Day

Appendix 7

Experiment 1, Narrow Focus

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,734	,440		8,479	,000
	Heard Focused Audio Marketing Message	,372	,184	,155	2,022	,045
	Male	-,437	,173	-,183	-2,531	,012
	Age	-,006	,006	-,078	-1,033	,303
	Percentage of daily sunshine duration	,002	,003	,045	,513	,609
	Daily mean temperature (in degrees Celsius)	-,048	,031	-,119	-1,521	,130
	Daily precipitation amount (in mm)	-,038	,017	-,186	-2,198	,029

a. Experiment = Experiment 1

b. Dependent Variable: Purchase Intention

Experiment 2, Moderate Focus

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,952	,457		6,459	,000
	Heard Focused Audio Marketing Message	,599	,195	,236	3,074	,002
	Male	-,389	,185	-,152	-2,106	,037
	Age	-,011	,006	-,129	-1,719	,087
	Percentage of daily sunshine duration	-,002	,004	-,054	-,616	,539
	Daily mean temperature (in degrees Celsius)	-,010	,032	-,023	-,307	,760
	Daily precipitation amount (in mm)	,007	,019	,034	,399	,690

a. Experiment = Experiment 2

b. Dependent Variable: Purchase Intention

Appendix 8

Step 1

The first step establishes that there could or could not be an effect that may be mediated.

Step 2

The second step establishes whether the potential mediators (store atmosphere perceptions and brand awareness) are associated with the independent variable (focused audio marketing). If the potential mediators are not associated with the independent variable, then it could not possibly mediate the relationship between focused audio marketing and purchase intention.

Step 3

The third step establishes whether the mediators (store atmosphere perceptions and brand awareness) are significant predictors of the dependent variable (purchase intention), while controlling for the independent variable (focused audio marketing) and the other control variables. The potential mediators (store atmosphere perceptions and brand awareness) are real mediators if the direct effects of the independent variable (focused audio marketing) on the dependent variable (purchase intention) become insignificant in this step and the indirect effects of the mediators are significant predictors of the dependent variable.

Appendix 9

Experiment 1, Narrow Focus

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,400 ^a	,160	,130	,40847

a. Predictors: (Constant), Daily precipitation amount (in mm), Male, Age, Heard Focused Audio Marketing Message, Daily mean temperature (in degrees Celsius), Percentage of daily sunshine duration

b. Experiment = Experiment 1

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,647	,158		29,389	,000
	Heard Focused Audio Marketing Message	,244	,066	,278	3,694	,000
	Male	-,060	,062	-,068	-,967	,335
	Age	,002	,002	,078	1,056	,293
	Percentage of daily sunshine duration	8,672E-5	,001	,006	,071	,943
	Daily mean temperature (in degrees Celsius)	-,017	,011	-,117	-1,532	,127
	Daily precipitation amount (in mm)	-,019	,006	-,249	-3,001	,003

a. Experiment = Experiment 1

b. Dependent Variable: Store Atmosphere

Experiment 2, Moderate Focus

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,245 ^a	,060	,027	,51360

a. Predictors: (Constant), Daily precipitation amount (in mm), Daily mean temperature (in degrees Celsius), Male, Heard Focused Audio Marketing Message, Age, Percentage of daily sunshine duration

b. Experiment = Experiment 2

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,636	,194		23,853	,000
	Heard Focused Audio Marketing Message	,154	,083	,148	1,856	,065
	Male	,025	,079	,024	,324	,747
	Age	,004	,003	,120	1,536	,126
	Percentage of daily sunshine duration	,000	,002	,016	,174	,862
	Daily mean temperature (in degrees Celsius)	-,027	,013	-,160	-2,027	,044
	Daily precipitation amount (in mm)	-,008	,008	-,088	-,991	,323

a. Experiment = Experiment 2

b. Dependent Variable: Store Atmosphere

Appendix 10

Experiment 1, Narrow Focus

Group Statistics^a

	Special Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
Effectiveness of in-store audio in this Plus Supermarket	off	86	4,3760	1,01208	,10914
	on	90	4,7241	1,14606	,12081

a. Experiment = Experiment 1

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Effectiveness of in-store audio in this Plus Supermarket	Equal variances assumed	,030	,864	-2,132	174	,034	-,34811	,16326
	Equal variances not assumed			-2,138	172,940	,034	-,34811	,16280

a. Experiment = Experiment 1

Experiment 2, Moderate Focus

Group Statistics^a

	Special Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
Effectiveness of in-store audio in this Plus Supermarket	off	90	4,2907	1,04355	,11000
	on	88	4,4280	,66609	,07101

a. Experiment = Experiment 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Effectiveness of in-store audio in this Plus Supermarket	Equal variances assumed	17,560	,000	-1,044	176	,298
Equal variances not assumed				-1,049	151,681	,296	-,13729	,13093

a. Experiment = Experiment 2

Appendix 11

Experiment 1, Narrow Focus

Group Statistics^a

	Special Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
In-store audio compared to other supermarkets	off	86	4,1260	,71168	,07674
	on	90	4,7574	,88127	,09289

a. Experiment = Experiment 1

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
In-store audio compared to other supermarkets	Equal variances assumed	1,784	,183	-5,215	174	,000	-,63144	,12107
	Equal variances not assumed			-5,240	169,347	,000	-,63144	,12049

a. Experiment = Experiment 1

Experiment 2, Moderate Focus

Group Statistics^a

	Special Speaker Status	N	Mean	Std. Deviation	Std. Error Mean
In-store audio compared to other supermarkets	off	90	4,1481	,60555	,06383
	on	88	4,3068	,48797	,05202

a. Experiment = Experiment 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		In-store audio compared to other supermarkets	Equal variances assumed	1,758	,187	-1,922	176	,056
	Equal variances not assumed			-1,927	169,837	,056	-,15867	,08234

a. Experiment = Experiment 2

Appendix 12

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,543 ^a	,295	,261	1,028

a. Predictors: (Constant), Daily precipitation amount (in mm), Male, Age, Heard Focused Audio Marketing Message, Daily mean temperature (in degrees Celsius), Brand Awareness, Store Atmosphere, Percentage of daily sunshine duration

b. Experiment = Experiment 1

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,241	,991		,243	,808
	Heard Focused Audio Marketing Message	,058	,175	,024	,331	,741
	Store Atmosphere	,557	,194	,204	2,876	,005
	Brand Awareness	,925	,168	,386	5,510	,000
	Male	-,277	,158	-,116	-1,751	,082
	Age	,000	,005	-,010	-,143	,887
	Percentage of daily sunshine duration	,001	,003	,028	,348	,728
	Daily mean temperature (in degrees Celsius)	-,018	,029	-,044	-,621	,536
	Daily precipitation amount (in mm)	-,029	,016	-,142	-1,815	,071

a. Experiment = Experiment 1

b. Dependent Variable: Purchase Intention

Appendix 13

Experiment 1, Narrow Focus

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	216,270 ^a	,137	,183

Variables in the Equation^b

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Heard Focused Audio Marketing Message	,900	,357	6,346	1	,012	2,460
	Male	-,638	,332	3,703	1	,054	,528
	Age	-,030	,011	7,906	1	,005	,970
	Percentage of daily sunshine duration	,004	,007	,338	1	,561	1,004
	Daily mean temperature (in degrees Celsius)	-,110	,063	3,039	1	,081	,896
	Daily precipitation amount (in mm)	,012	,034	,116	1	,734	1,012
	Constant	2,240	,853	6,900	1	,009	9,392

a. Variable(s) entered on step 1: Heard Focused Audio Marketing Message, Male, Age, Percentage of daily sunshine duration, Daily mean temperature (in degrees Celsius), Daily precipitation amount (in mm).

b. Experiment = Experiment 1

Experiment 2, Moderate Focus

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	218,167 ^a	,130	,175

Variables in the Equation^b

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Heard Focused Audio Marketing Message	1,109	,349	10,125	1	,001	3,031
	Male	-,215	,332	,419	1	,517	,806
	Age	-,037	,012	8,713	1	,003	,964
	Percentage of daily sunshine duration	,002	,007	,090	1	,765	1,002
	Daily mean temperature (in degrees Celsius)	,001	,057	,000	1	,985	1,001
	Daily precipitation amount (in mm)	,014	,033	,187	1	,665	1,014
	Constant	,569	,824	,477	1	,490	1,767

a. Variable(s) entered on step 1: Heard Focused Audio Marketing Message, Male, Age, Percentage of daily sunshine duration, Daily mean temperature (in degrees Celsius), Daily precipitation amount (in mm).

b. Experiment = Experiment 2

Appendix 14

Experiment 1, Narrow Focus

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,543 ^a	,295	,261	1,028

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,241	,991		,243	,808
	Heard Focused Audio Marketing Message	,058	,175	,024	,331	,741
	Store Atmosphere	,557	,194	,204	2,876	,005
	Brand Awareness	,925	,168	,386	5,510	,000
	Male	-,277	,158	-,116	-1,751	,082
	Age	,000	,005	-,010	-,143	,887
	Percentage of daily sunshine duration	,001	,003	,028	,348	,728
	Daily mean temperature (in degrees Celsius)	-,018	,029	-,044	-,621	,536
	Daily precipitation amount (in mm)	-,029	,016	-,142	-1,815	,071

a. Experiment = Experiment 1

b. Dependent Variable: Purchase Intention

Experiment 2, Moderate Focus

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,506 ^a	,256	,221	1,122

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,090	,884		1,233	,219
	Heard Focused Audio Marketing Message	,335	,187	,132	1,784	,076
	Store Atmosphere	,288	,169	,118	1,700	,091
	Brand Awareness	,881	,185	,344	4,766	,000
	Male	-,357	,172	-,139	-2,076	,039
	Age	-,006	,006	-,065	-,905	,367
	Percentage of daily sunshine duration	-,003	,003	-,066	-,818	,414
	Daily mean temperature (in degrees Celsius)	-,002	,030	-,005	-,074	,941
	Daily precipitation amount (in mm)	,007	,017	,032	,407	,684

a. Experiment = Experiment 2

b. Dependent Variable: Purchase Intention

Appendix 15

Experiment 1, Narrow Focus

Heard Focused Audio Marketing Message * Special Speaker Status

Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Heard Focused Audio	No	86	10	96
Marketing Message	Yes	0	80	80
Total		86	90	176

a. Experiment = Experiment 1

Music Awareness * Special Speaker Status Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Music Awareness	not aware	49	41	90
	aware	37	49	86
Total		86	90	176

a. Experiment = Experiment 1

Product Information Awareness * Special Speaker Status Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Product Information	not aware	45	30	75
Awareness	aware	41	60	101
Total		86	90	176

a. Experiment = Experiment 1

Experiment 2, Moderate Focus

Heard Focused Audio Marketing Message * Special Speaker Status

Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Heard Focused Audio	No	90	4	94
Marketing Message	Yes	0	84	84
Total		90	88	178

a. Experiment = Experiment 2

Music Awareness * Special Speaker Status Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Music Awareness	not aware	56	36	92
	aware	34	52	86
Total		90	88	178

a. Experiment = Experiment 2

Product Information Awareness * Special Speaker Status Crosstabulation^a

Count

		Special Speaker Status		Total
		off	on	
Product Information	not aware	56	38	94
Awareness	aware	34	50	84
Total		90	88	178

a. Experiment = Experiment 2

Appendix 16

Experiment 1, Narrow Focus

Group Statistics^a

Heard Focused Audio Marketing Message		N	Mean	Std. Deviation	Std. Error Mean
Pleasantness of Music	No	40	3,9500	,83051	,13131
	Yes	46	4,1196	,79711	,11753

a. Experiment = Experiment 1

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Pleasantness of Music	Equal variances assumed	,000	,990	-,965	84	,337
Equal variances not assumed				-,962	81,296	,339	-,16957	,17623

a. Experiment = Experiment 1

Group Statistics^a

Heard Focused Audio Marketing Message		N	Mean	Std. Deviation	Std. Error Mean
Usability of Product Information	No	42	3,9286	,78446	,12104
	Yes	60	4,1556	,69561	,08980

a. Experiment = Experiment 1

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Usability of Product Information	Equal variances assumed	,631	,429	-1,538	100	,127
	Equal variances not assumed			-1,506	81,415	,136	-,22698	,15072

a. Experiment = Experiment 1

Experiment 2, Moderate Focus

Group Statistics^a

Heard Focused Audio Marketing Message		N	Mean	Std. Deviation	Std. Error Mean
Pleasantness of Music	No	35	4,0429	,62275	,10526
	Yes	52	4,2212	,70303	,09749

a. Experiment = Experiment 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Pleasantness of Music	Equal variances assumed	1,733	,192	-1,213	85	,228
	Equal variances not assumed			-1,243	78,728	,218	-,17830	,14348

a. Experiment = Experiment 2

Group Statistics^a

		N	Mean	Std. Deviation	Std. Error Mean
Usability of Product Information	No	35	3,7714	,57606	,09737
	Yes	50	3,9933	,78677	,11127

a. Experiment = Experiment 2

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Usability of Product Information	Equal variances assumed	,466	,497	-1,422	83	,159	-,22190	,15605
	Equal variances not assumed			-1,501	82,802	,137	-,22190	,14786

a. Experiment = Experiment 2

Experiment 1 (narrow focus) compared to experiment 2 (moderate focus)

Group Statistics^a

		N	Mean	Std. Deviation	Std. Error Mean
Pleasantness of Music	Experiment 1	46	4,1196	,79711	,11753
	Experiment 2	52	4,2212	,70303	,09749

a. Heard Focused Audio Marketing Message = Yes

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Pleasantness of Music	Equal variances assumed	,099	,753	-,670	96	,504
	Equal variances not assumed			-,665	90,449	,508	-,10159	,15270

a. Heard Focused Audio Marketing Message = Yes

Group Statistics^a

	Experiment	N	Mean	Std. Deviation	Std. Error Mean
Usability of Product Information	Experiment 1	60	4,1556	,69561	,08980
	Experiment 2	50	3,9933	,78677	,11127

a. Heard Focused Audio Marketing Message = Yes

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Usability of Product Information	Equal variances assumed	,067	,797	1,147	108	,254
	Equal variances not assumed			1,135	98,809	,259	,16222	,14298

a. Heard Focused Audio Marketing Message = Yes

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