Let the music play or not: the influence of background music on consumer behavior

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LET THE MUSIC PLAY...OR NOT: THE INFLUENCE OF BACKGROUND MUSIC ON CONSUMER BEHAVIOR

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CHANGING THE SERVICESCAPE EXPERIENCE WITH MUSIC

ABSTRACT

This study concerns the effect that music has on consumer behavior in two different retail contexts during regular opening hours. Two studies were conducted in a field setting with consumers (N = 550). Consumers were recruited to answer questions regarding behavioral measures, attitudes, and mood during days when background music was played. The conclusions from the two studies are that music affects consumer behavior, but also that the type of retail store and gender influences both the strength and direction of the effect.

1. Introduction

Today, many marketers view the store environment as an important way to satisfy their consumers. They do this by providing a positive shopping experience that establishes the store as the first choice in the consumer's mind (Baker et al., 1992; Baker and Cameron, 1996; Bitner, 1992). Marketers use servicescapes as a way to create a good consumer experience, but also to influence consumer behavior. One of the tools used to achieve this is music. The effects of using background music to influence consumer behavior in different settings and situations have been widely recognized in contexts such as retail stores (Baker et al., 1992; Grewal et al., 2003). Several studies have confirmed that music provides pleasure and arouses consumers (Garlin and Owen, 2006; Turley and Milliman, 2000).

Previous studies on music in retail stores have focused on how background music influence affective, behavioral, and temporal variables (Jain and Bagdare, 2011). The overall conclusion of these studies has been that music is expected to make consumers feel better, which leads them to spend more time in the store and consume more (Turley and Milliman, 2000). The majority of the research on how music affects consumer behavior has been conducted in experimental settings with undergraduate students, where the influence of other variables is controlled or non-existent. Conducting controlled experiments in off-site laboratories is an effective way to understand the effects of a phenomenon. However, before the effects are tested in a real business context, it is difficult to judge how influential these effects really are. In a servicescape, consumers are affected by quite a few other variables that are designed to influence behavior. Consequently, the true test of the influence of music is to determine how it affects consumers in competition with other influential variables in a servicescape. Some of the notable exceptions that have conducted

experiments in a real store setting are Eroglu et al. (2005), Milliman (1982) and Herrington and Capella (1996).

The purpose of this research is to apply theories developed from off-site laboratory experiments into real retail settings, and to investigate whether music in retail store affects consumers' approach/avoidance behavior.

The following section presents previous research regarding effects of music on consumer behavior, as well as the hypotheses for the study. Study I is then presented with the method, results, and discussion, followed by Study II, with previous research regarding moderating effects of music on consumer behavior, method, results, and discussion. The paper ends with a general discussion and concluding remarks.

2. Previous research and hypotheses development

Mehrabian and Russell (1974) showed that the underlying theory of the influence of music is that environment will influence an individual's emotional reactions; this, in turn, affects an individual's behavioral responses to either approach or avoid the environment. The Mehrabian-Russell model posits that the environment affects three emotional states: pleasure, arousal, and dominance (PAD) (Mehrabian and Russell, 1974). Pleasure refers to the affective state of feeling good, happy, pleased, or joyful. Arousal is the extent to which an individual feels stimulated, excited, alert, or active. Dominance is the degree to which an individual feels influential, in control, or important. Several studies have investigated the importance of the dominance dimension as part of the affective state (Russell, 1978). The lack of evidence for dominance as part of the affective state led to the deletion of the dominance dimension; consequently, Russell and Pratt (1980) developed a two-dimensional

model based on pleasure and arousal. These emotional responses result in two contrasting behaviors: either approach or avoidance (Bitner, 1992; Donovan and Rossiter, 1982; Mehrabian and Russell, 1974). Approach-avoidance is considered to have four aspects. The first is a desire to physically stay in (approach) or get out of (avoid) the environment. The second is a desire or willingness to look around and explore the environment (approach) versus a tendency to avoid moving through or interacting with the environment (avoidance). The third aspect is a desire to communicate with others in the environment (approach) as opposed to a tendency to avoid interacting with others (avoidance). The fourth aspect is the degree of improvement (approach) or interruption of performance and satisfaction with task performances (avoidance) (Donovan & Rossiter, 1982; Mehrabian & Russell, 1974). In sum, consumers will avoid an unpleasant environment and approach a pleasant one.

The PAD model has been widely validated in research. Donovan and Rossiter (1982) and Donovan et al. (1994) used the model to examine consumers' emotions during their shopping experience. The findings confirmed that pleasure predicted consumer behavior in terms of extra time spent in store and unplanned purchasing (approach), and that arousal could predict less spending in unpleasant store environments (avoidance). Baker et al. (1992) found that pleasure and arousal were both positively related to a willingness to buy, while Dubé et al. (1995) found that higher levels of pleasure and arousal increased the desire to affiliate with staff in a bank setting. Demoulin (2011) findings suggest that high levels of arousal has a negative effect on pleasure and this in turn affect the judgment environment quality and service quality. Since Donovan and Rossiter (1982) first applied the Mehrabian-Russell model, it has also been validated in various consumption settings, such as

retail settings (Li et al., 2009; Rompay et al., 2008) and restaurants (Jang and Namkung, 2009; Yinghua and SooCheong, 2009).

Research on music as an independent variable has focused on how the valence of music affects factors such as waiting time, and how music tempo affects behavior. For example, Hui and Dubé (1997) found that music ameliorated the emotional evaluation of the environment for consumers waiting for a service; this, in turn, led to approach behavior towards the service organization. Music with positive valence also triggered a more positive emotional response to the wait. In a similar fashion, Vida et al. (2007) found that music that is perceived to fit the store image had a positive affect on the length of shopping time, which indirectly influenced consumers' expenditure. In sum, music appears to impact a variety of dependent variables, such as affective ones (mood, arousal pleasure, emotion) (Bitner, 1992; Tansik and Routhieaux, 1999), financial returns (value of sales, quantity purchased, gross margins) (North et al., 2000, 2003), attitudes and perception (liking, brand loyalty, service quality) (Chebat and Gelinas-Chebat, 1993; Grewal et al., 2003), temporal effects (duration perceived/actual, time to consume) (Holbrook and Gardner, 1993), and behavioral variables (patronage frequency, store choice, in-store traffic flow) (Turley and Milliman, 2000; Garlin and Owen, 2006).

2.1. Hypotheses development

Bearing the above-mentioned literature in mind, it seems fair to conclude that music affects consumer behavior. However, as stated, a large majority of the studies presented were conducted in a laboratory setting using undergraduate students as the sample, rather than actual consumers in their normal environment. This is confirmed in a review article by Turley and Milliman (2000). There are many

advantages to using a controlled setting to tease out effects that may otherwise become blurred. However, this raises questions regarding the external validity of the findings and whether it would be possible to detect the same effects in an actual store setting. The underlying research question of this study is, when many other variables are present, does music playing in the background still have a detectable effect? With that question as our basis, and the literature presented above, the following hypotheses are developed.

H 1. Music will affect (a) pleasure and (b) arousal.

H 2. Music will affect time spent in store and actual spending.

H 3. Music will affect (a) general approach/avoidance behavior, (b) enjoyment with the store, (c) time experience, (d) contact with others, (e) purchase experience.

H 4. Pleasure and arousal of consumers will predict (a) general approach/avoidance behavior, (b) enjoyment with the store, (c) time experience, (d) contact with others, and (e) purchase experience.

>> Insert Figure 1 about here <<

4. Study I

4.1. Method

In order to explore whether music affects consumers' buying behavior and evaluation of the shopping environment in a real life setting, an experiment was conducted in a Swedish home electronics retail store using music and no music as the independent variable. Music (or no music) was played in the background in a store over a four-

day period. After visiting the store, consumers were asked to fill out a questionnaire, from which the empirical data was gathered.

4.2. Participants

Study I was conducted in a home electronics store and involved the participation of 150 consumers. The sample consisted of 85 males and 65 females, with a mean age of 44 years (SD = 16.12).

4.3. Design study I

The independent variable Music/No Music was varied during four days in mid-December. The music was popular music that had been adapted to the Christmas period and was selected by a company that specializes in designing music for these types of store settings. The volume of the music was constant during the two days when music was played. Upon exiting the store, ordinary shoppers were asked if they would like to fill in a questionnaire regarding their experience of the store during the visit.

4.5. Measurement

The first part of the questionnaire contained demographic questions such as age, gender, time spent in store and actual spending. The next part consisted of questions measuring approach or avoidance behavior (Donovan and Rossiter, 1982). The scales measuring approach or avoidance contained four subscales, which measured enjoyment (for example, "the experience was positive," "I like being in this store"), time experience (for example, "I took extra time exploring the store"), contact (for example, "the contact with the staff was positive," "the store invites communication with other consumers") and purchase experience (for example, "I

made an impulsive purchase today"). Each of these four subscales was then calculated to a general approach or avoidance category. All items used a 10-point scale, whereby the participants indicated the degree to which they agreed or did not agree with a statement.

The last part of the questionnaire contained questions regarding PA (pleasure-arousal), which was measured using the Swedish Core Affect Scale (or SCAS) (see Västfjäll et al., 2002, for a more detailed description). This scale was used to measure how much affect respondents felt. Ratings were made of *valence (pleasure)* and *activation (arousal)*. Three scales with adjective pairs (translated from Swedish) – sad-glad, depressed-happy and displeased-pleased – were used to capture *valence*. Three scales with adjective pairs were used to capture *activation*: sleepy-awake, dull-peppy, and quiet-energetic.

5. Results

This study sought to determine how music affects pleasure/arousal, approach/avoidance behavior and also whether pleasure/arousal could predict approach/avoidance behavior. Prior to analysis, the data was checked for effects due to age and gender. No effects were found for age, but several effects for gender were discovered, which are presented in the main results. To test Hypotheses 1, 2 and 3, ANOVA tests looked for differences in the means of the dependent variables (pleasure, arousal, time spent and actual spending, general approach behavior, and its subscales of enjoyment, time, contact, purchase). Multiple regression analysis was used to test Hypothesis 3. The next section presents the findings for each of the hypotheses.

5.1. Music affects pleasure and arousal

The ANOVA results show that music has no significant effects on pleasure; therefore, H1 (a) is rejected.

When it comes to arousal, music was not found to have any significant effects, so H1 (b) is also rejected. However, there was a significant gender difference ($F(1,146) = 5.353$, $p = .02$) whereby females reported higher levels of arousal (M = 2.79, SD =1.61) than males (M = 2.21, SD = 1.56). The results also showed a music and gender interaction regarding the arousal dimension ($F(1,146) = 3.915$, $p = .05$), whereby females reported higher levels of arousal during the no-music condition (M = 3.08, SD = 1.33) than males (M = 1.96, SD = 1.63). During the music condition, females reported lower levels of arousal (M = 2.58, SD = 1.77) than males (M = 2.5, SD = 1.44); overall, women and men ended up on almost the same level (see Figure 2 below).

>> Insert Figure 2 about here <<

5.2. Music will affect time spent in store and actual spending.

There was a significant effect for time spent in store ($F(1,147) = 16.018$, $p < .001$), were the mean reveal that more time were spent during the music condition (M = 22.87, SD = 1.71) compared to the no music condition (M = 14.82, SD = 1.03). There was also a significant music effect on actual spending ($F(1,149) = 11.977$, $p = .001$), the mean show that it is in music condition most spending occurs (M = 2079, SD =2029) compared to no music condition (M = 1169, SD = 1055).

5.3. Music affects approach/avoidance behavior

There was no significant music affect for general approach/avoidance behavior, nor did music have any significant effects on the subscales enjoyment, time experience, contact, or purchase experience; therefore, H2 (a, b, c, d, e) are rejected.. Additionally, the results showed four significant music and gender interactions. Firstly, there was an interaction effect for the general approach/avoidance behavior ($F(1,149) = 5.986$, $p = .01$). During the no-music condition, females reported higher levels of approach behavior (M = 7.63, SD = 1.32) than males (M = 6.67, SD = 1.49); during the music condition, females reported lower levels of approach behavior (M = 6.99, SD = 1.73) than males (M = 7.28, SD = 1.59) (see Figure 3).

>> Insert Figure 3 about here <<

Secondly, there was an interaction effect for the subscale enjoyment ($F(1,149) = 6.15$, $p = .01$). During the no-music condition, females reported higher levels of enjoyment (M = 8.56, SD = 1.54) than males (M = 7.52, SD = 1.52). During the music condition, female (M= 7.73, SD = 1.90) and males (M = 7.98, SD = 1.54) report almost the same level of enjoyment (see Figure 4).

>> Insert Figure 4 about here <<

Thirdly, there was an interaction effect for the subscale contact ($F(1,149) = 4.268$, $p =.04$). During the no music condition females reported higher levels of contact (M = 8.07, SD = 1.46) than males (M = 7,12, SD = 1.58) and in the music condition females (M = 7.04, SD = 2.19) and males (M = 7.34, SD = 2.02) report almost the same level of contact (see Figure 5).

>> Insert Figure 5 about here <<

The fourth significant music and gender interaction regards the subscale purchase experience (F(1,149) = 6.016, p =.01) were females reported higher level of purchase experience in the no music condition (M = 7.16, SD = 1.72) than males (M = 6.21, SD = 1.76). In the music condition it turns out to be the opposite were males reported higher level of purchase experience (M = 7.01, SD = 1.91) than females (M = 6.44, SD = 2.03) (see Figure 6).

>> Insert Figure 6 about here <<

5.3. Pleasure and Arousal predicts approach/avoidance

In order to investigate whether pleasure and arousal predicted approach/avoidance and its subscales, multiple regression analyses were performed using the enter method. All ten models that were investigated were significant, therefore, H4 (a, b, c, d and e) are accepted. The results showed that arousal was a significant predictor in nine of the significant models. Pleasure was not a significant predictor in any of the ten models. Additionally, the result showed that the explained variance increased in the music condition (see Table 1).

>> Insert Table 1 about here <<

6. Discussion

The underlying research question of this study was to investigate whether music has a detectable effect in a real-world setting, as has previously been shown in laboratory experiments. The study results reveal two clear music effects regarding time spent in store and spending, the results shows that consumers in the music condition spent more money and time in the store. This is in line with research in were music is expected to make consumers feel better, which causes them to spend

more time in the store and, consequently, consume more (Turley and Milliman, 2000). Music did not have any significant effect on approach/avoidance behavior, but, controlling for moderating factors such as gender reveals an interaction between music and gender. The results indicate that music and gender interacts regarding arousal in such way that females are more aroused than males in the no-music condition. Gender also plays an important moderating role for approach/avoidance behavior. The conclusion that can be drawn from this is that music affects time and money spent in-store, but the degree of approach behavior is moderated by gender. The results also show that arousal predicts approach/avoidance behavior and the results also showed that the explained variance increased in the music condition. This result confirms the complexity of arousal effects on approach behavior. For example, there are inconsistent findings regarding the effect of arousal. Sherman et al. (1997) found that arousal increases spending and purchase intentions, whereas Milliman (1982) reported the opposite effects.The purpose of this study was to investigate whether music has a detectable effect on consumer behavior in an actual store setting, as compared to laboratory setting. There are several reasons why the effect of music on time and money spent in store calls for an additional study. Firstly, there is empirical evidence that whether the stimuli is experienced as pleasant or unpleasant depends on whether the consumption activities are hedonic or utilitarian (Donovan and Rossiter 1982; Kaltcheva and Weitz 2006). Study I was conducted in an electronics store shortly before Christmas, when gift-buying was at its peak. This might be viewed as a more hedonic activity, as consumers could be expected to visit the store in order to get inspiration regarding what to give and what to ask others for. Therefore, a follow-up study would be of interest, in which the consumption activity is more utilitarian, such as in a grocery store. Secondly, the findings of music and

gender interaction also call for a follow-up. Finally, in order to better detect nuances of the effect that music might have, it would be desirable to also investigate how the tempo of music affects consumers. These factors inspired a second study that builds on the above discussion.

7. STUDY II: Previous research and hypotheses

7.1. Moderating effects of music on consumer behavior

Some studies have indicated that gender may have a moderating/mediating impact on how music affects consumer behavior. Grewal et al. (2003) found that males and females reacted differently to atmospheric variables such as number of visible employees, number of consumers, and the presence (or absence) of music. These results suggest that males have more negative expectations regarding waiting time than females and evaluated store atmosphere less positively than females. Kellaris and Rice (1993) found a gender difference in hearing sensitivities which could explain why females respond more positively than males to music at lower volumes. Kellaris and Altsech (1992) examined the influence that music and gender have on the experience of time and discovered that gender moderated the effect of loudness on perceived duration in store. Kellaris and Mantel (1994) suggested that gender and its interaction with mood (induced by music) can influence consumers' time perceptions. Their results showed that female participants were affected by their mood state more than their male counterparts and that mood had no influence in time perceptions independently of gender. Research has also shown that females prefer slower, softer music and that males prefer louder, faster music, regardless of the music genre (Stipp, 1990). In line with this, Sweeney and Wyber (2002) found

that females preferred slow top-40 music, which was related to a higher perception of service quality and pleasure.

Studies have shown that music tempo influences traffic pace and sales volume, with slow-tempo music leading to increased sales volume (Milliman, 1982), and that music also has a moderating effect on attention level, mood, and time estimation (Chebat et al., 1993). Music tempo has also been shown to lead to behavioral responses such as approach/avoidance tendency (Eroglu et al., 2005). Studies that have used tempo as a variable indicate that slow-tempo music slows consumers down, which causes them to spend more time in store and buy more than when fast-tempo music being played. Milliman (1986) found significant differences for slow tempo music and fast tempo music regarding time customer spent in a restaurant, purchase and service, were slow tempo music increased time spent, money spent and service time. In sum, music seems to be mediated by music tempo (Eroglu et al., 2005; Caldwell and Hibbert, 2002) and by gender (Kellaris and Altsech, 1992).

7.2. Hypothesis development

Based on the results from Study I and the literature presented above, Hypotheses 1, 2 and 3 are developed further.

 H 1:2. Music tempo will affect (a) pleasure and (b) arousal, and gender will have a moderating role.

H 2:2. Music tempo will affect time spent in store, actual spending and gender will have a moderating role.

H 3:2. Music tempo will affect (a) general approach/avoidance behavior, (b) enjoyment with the store, (c) time experience, (d) contact with others, (e) purchase experience and gender will have a moderating role.

H 4:2. Pleasure and arousal of consumers will predict (a) general approach/avoidance behavior, (b) enjoyment with the store, (c) time experience, (d) contact with others, and (e) purchase experience.

8. Method

Study II was conducted in order to investigate how music affects consumer behavior and whether gender is a moderator. Study II was conducted during a regular shopping season in a large supermarket store, with two different tempo of music and also with no music at all.

8.1. Participants

Study II involved 400 consumers of a large supermarket store. The sample consisted of 174 males and 226 females, with the mean age of 49 years (SD = 17.03).

8.2. Measurement

The same questionnaire was used as in Study I, although it was adjusted to the new retail store.

8.3. Design

The independent variable was no-music/slow-tempo music (60 beats per minute), and fast-tempo music (96 beats per minute). The musical pieces were selected by a company that specializes in designing music for these types of store settings. In both the fast and slow music conditions, the genre (familiar adult contemporary favorites)

and volume was the same. Following consultation with the retail store owner, three days of the week were selected because they were considered to be as similar as possible in terms of sales and consumer groups.

9. Results

This study sought to identify how music affects pleasure/arousal, time and money spent in store, approach/avoidance behavior and whether there is a moderating role of gender. The study also investigated whether pleasure and arousal predict approach/avoidance behavior. In order to test Hypotheses 1:2, 2:2 and 3:2 ANOVA tested for differences in the means of the dependent variables (pleasure, arousal, time and actual spending, general approach behavior and its subscales; enjoyment, time experience, contact, purchase experience). Multiple regression analysis was used to test Hypothesis 4:2. The following section presents the findings for each of the hypotheses.

9.1. Music affects pleasure/arousal and there is a moderating role of gender

The ANOVA result showed that music had no main effect on pleasure ($p > 0.5$); therefore, H 1:2 (a) is rejected. Gender did have a significant main effect on pleasure ($F(1,393) = 17.050$, $p < .001$), whereby females reported higher levels of pleasure (M = 2.67, SD = 1.49) than males (M = 1.98, SD = 1.60). Furthermore, the results did not show a significant interaction between music and gender, which indicates that gender does not have a moderating role for pleasure.

With regard to arousal, the ANOVA showed no significant effect of music ($p > 0.5$); therefore, H 2:1 (b) is rejected. However, there was a significant main effect of gender ($F(1,394) = 9.130$, $p = .003$) whereby females reported higher levels of

arousal (M = 2.44, SD = 1.72) than males (M = 1.76, SD = 1.87). This result, however, was qualified by a significant music and gender interaction (F = 3.281, *p* = .039). Inspection of cell means reveals that the main gender difference stems from male responses during the slow-tempo music condition (see Figure 7), which indicates that gender has a moderating role for arousal.

>> Insert Figure 7 about here <<

9.2 Music will affect time spent in store, actual spending and gender will have a moderating role.

One significant music effect were detected regarding actual spending (F(2,408) = 3.018, *p* = .05). A follow- up LSD post-hoc test showed that spending was significant lower in the no music condition than in the two music conditions. No significant music .effect on time was detected. No music and gender interaction were detected

9.3. Music will affect approach/avoidance behavior and gender will have a moderating role

The ANOVA results showed three significant main effects of music. Firstly, there was a significant music effect on general approach/avoidance behavior (F(2.396) = 3.352, *p* = .03). A follow-up LSD post-hoc test showed that approach behavior was significant higher in the no music condition than in the slow tempo condition. Secondly, there was a significant music effect on enjoyment (F(2,396) = 4.217, *p* = .01). A follow-up LSD post-hoc test showed that enjoyment was significantly lower in the two music conditions than in the no-music condition. Thirdly, there was a significant music effect on time experience (F(2.396) = 6.476, *p* = .002). A follow-up LSD post-hoc test showed that time experience was significant higher in the no music condition than in the two music conditions. Therefore, H 3:2 (a, b and c) is

accepted.. No music and gender interaction was discovered, which indicates that gender does not have a moderating role.

9.3. Pleasure and arousal will predict approach/avoidance behavior.

In order to investigate the extent to which pleasure and arousal predict general approach/avoidance and its subscales, multiple regression analyses were performed using the enter method, which resulted in thirteen significant models. The results showed that pleasure was a significant predictor in eight of the significant models ,and arousal was a significant predictor in five of the significant models. Additionally, the result showed that the explained variance increased in the fast-tempo condition (see Table 2). Based on these results H 4:2 (a, b, c, d and e) is accepted.

>> Insert Table 2 about here <<

10. Discussion

Study II aimed to answer the same research questions as in Study I, although refined in another retail context, in respect to gender and with one additional music condition. No support was found for music affecting either pleasure or arousal; however, as in Study I, a music gender interaction was found regarding arousal. Research regarding arousal effects on consumer behavior is not consistent, but Demoulin (2011) findings suggest that low arousal, induced by music congruency, increases customers´ pleasure which leads to customer feel relaxed and calm. Kaltcheva and Weitz (2006) have suggested that consumers' motivational orientation explains the effects of arousal on pleasantness. If the consumer has a task-oriented motivational orientation, high arousal decreases pleasantness. Notably, the present study found negative music effects regarding approach behavior, enjoyment and

time experience. The customer have more approach behavior, feel higher degree of enjoyment and more positive time experience in the no-music condition than in the music conditions. Despite these results, it is in the music condition customer spend the most money. Regarding the predicted value of pleasure and arousal for approach behavior, the results show that pleasure has the strongest explaining value and the explained variance progressively increases being lowest in the no-music condition and highest in the fast-tempo condition.. Despite the complexity of the results, it is clear that music has an effect on one of the most important variable, namely sales.

11. General discussion

The overall purpose of the present investigation was to explore whether music played in a retail store affects consumer behavior and if gender has a moderating role. Results from this investigation clearly show that music positively affects one of the most important parts of approach behavior, namely purchase. This result is in line with several other studies that have shown that music influences sales (Eroglu et al., 2005: Caldwell and Hibbert, 2002; Milliman, 1986).Studies I and II both found that music affected the arousal level, but that it was moderated by gender. Furthermore, gender also moderated the effect that music had on approach behavior in Study I. These results from this study indicate that females preferred no-music or slow-tempo music, and the opposite is true for males. Another aspect of interest is that, in Study II, music affected enjoyment negatively (most enjoyment was when no music was played). This is an interesting finding because it is in the music conditions (this applies for both studies) customers spend most money. From the two studies, we can conclude that music affects consumer behavior, but that the type of retail

store and gender influences both the strength and direction of the effect. Some research reports that whether the stimuli is experienced as pleasant or unpleasant depends on whether the consumption activities are hedonic or utilitarian, where the latter is more often experienced as unpleasant (Kaltcheva and Weitz, 2006).

The result of music and gender interactions indicates that music affects females and males differently. Females are positively affected by no music or slow-tempo music. Males are affected positively by music and fast-tempo music. This is in line with studies by Kellaris and Rice (1993), who found that females respond positively to music at lower volumes, and Stipp (1990), who showed that females prefer slow and soft music compared to males, who prefer fast and louder music. The conclusions from our two studies are that gender moderates the effect that music has on approach behavior, but music alone has a positive effect on actual purchase. This is an important finding that gives retail managers knowledge about the different effect of music being played in the retail store, in the short run music increases sales but in the long run music could decrease customer satisfaction and loyalty which affects gross sale. Three qualities distinguish this research from prior work in this area. First, because the studies were conducted in actual retail stores with naturally occurring shopping behavior, the external validity of the findings surpasses what has been seen in the literature to date. Second, these studies has investigated the differences of music and the absent of music. This is to the researchers' knowledge something that other studies have not examined. Usually, music is varied by tempo, pitch, volume or mode, which does not reflect the reality of retail atmosphere and it does not examined the question, is playing music always beneficial for retailers. The third contribution of the studies is the direction toward the interaction effect of music and gender. The literature indicates that gender has a moderating effect, while empirical

research suggests that males and females tend to have different attitudinal and behavioral orientations in their buying behavior (Homburg and Giering, 2001). Some researchers have suggested that there are gender differences in hearing sensitivities, and that males and females process auditory stimulus differently and that female respond more positively to music at lower volumes (Kellaris and Rice, 1993). The findings from the present study indicate that it is not only volume that is processed differently, but also the tempo. Given the importance of consumer satisfaction in retail stores, our results suggest that retailers should be aware of how music really affects consumer satisfaction and, more specifically, that the effect might differ between male and female in respect to the type of music played. This allows retailers to vary the format of their background music to fit different demographic segments or choose not to play background music at all, which should ultimately increase sales, consumer loyalty and consumer satisfaction. Many store owners do not know whether music really influences consumer behaviour at all and therefore play music "just because everyone else does". This study suggests that music does have an influence, but that the influence is different for different customer groups. Managers in a retail setting should adapt music based on who their customers are, and this could even differ across different days or time of day. Otherwise, managers run the risk of turning half their clientele into unpleased and stressed consumers.

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Figures and Tables to be inserted in the manuscript
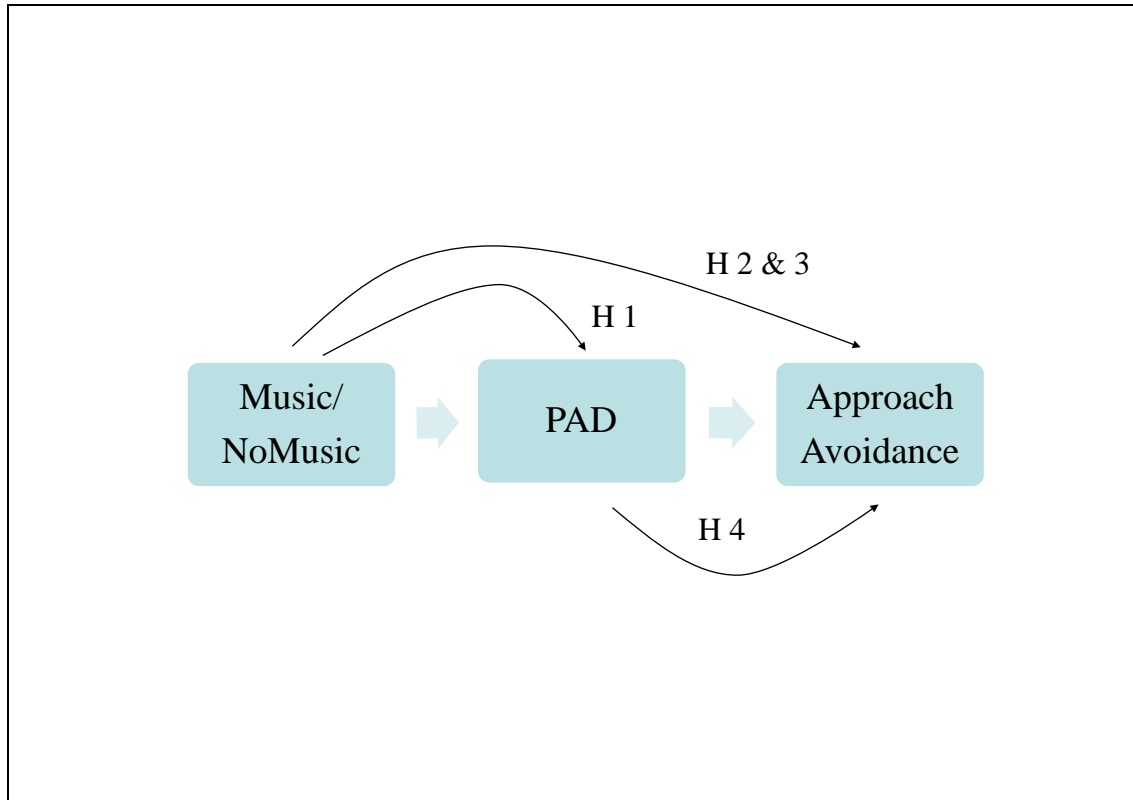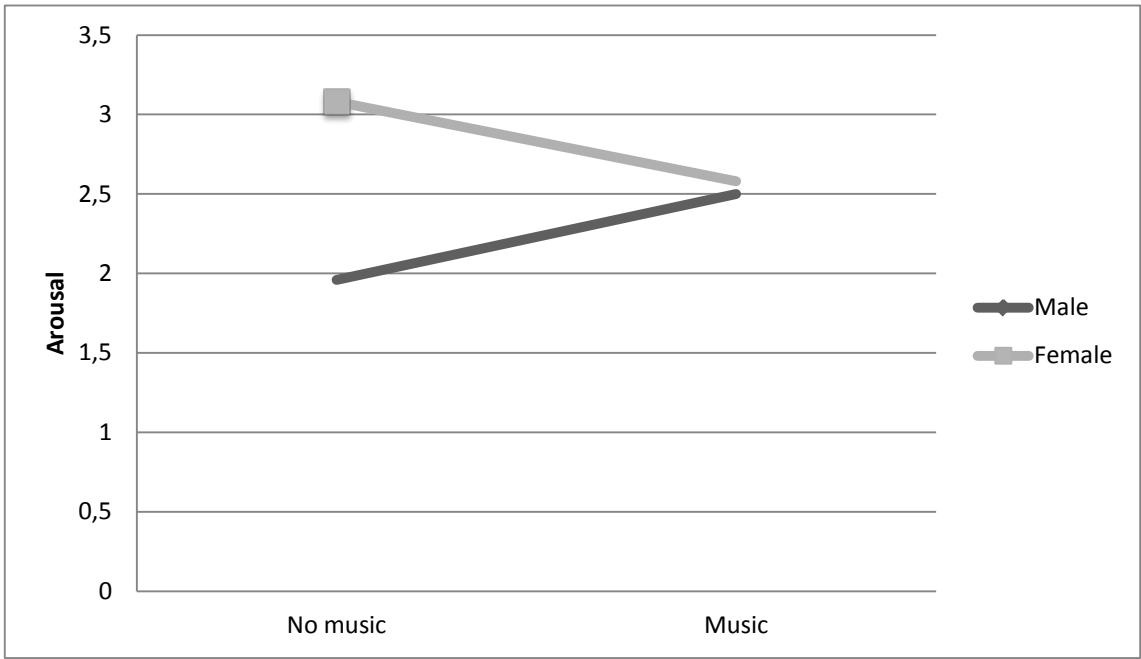

Figure 1: Hypotheses, Study I.

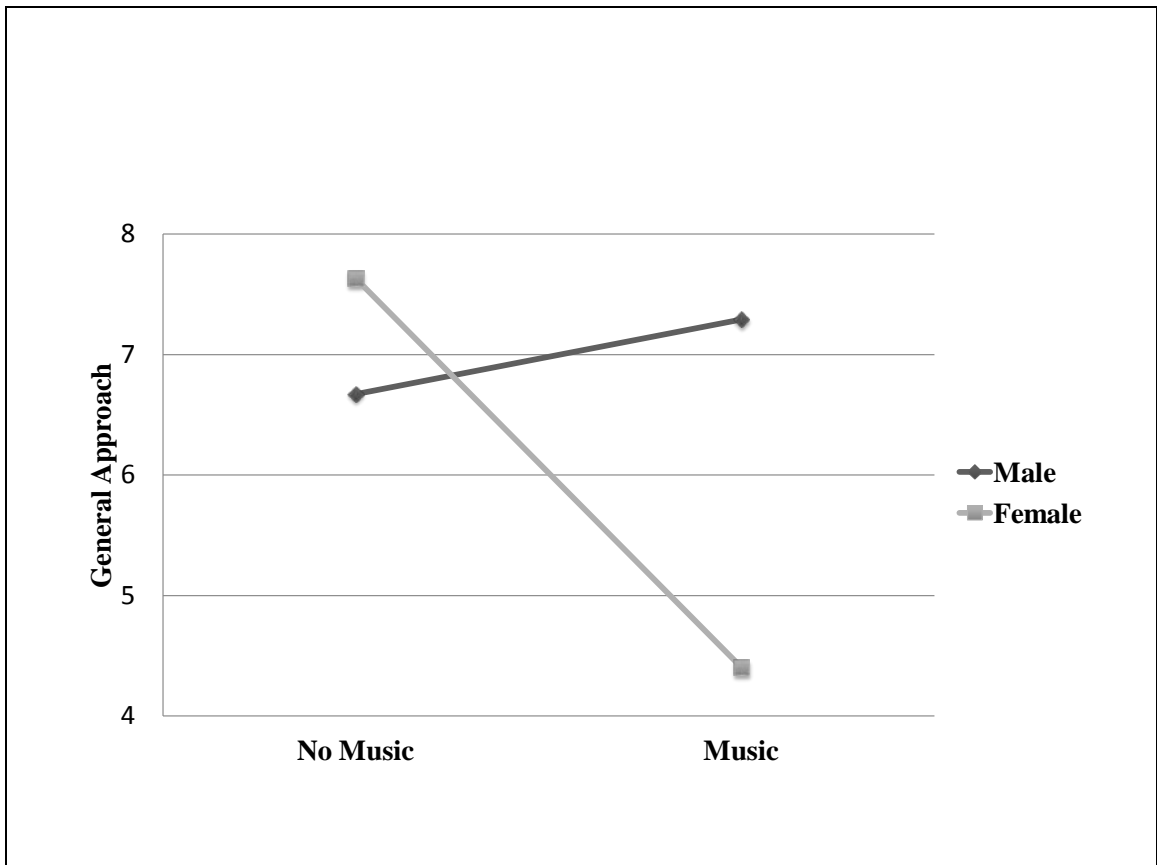Figure 2: Music and gender interaction for arousal.

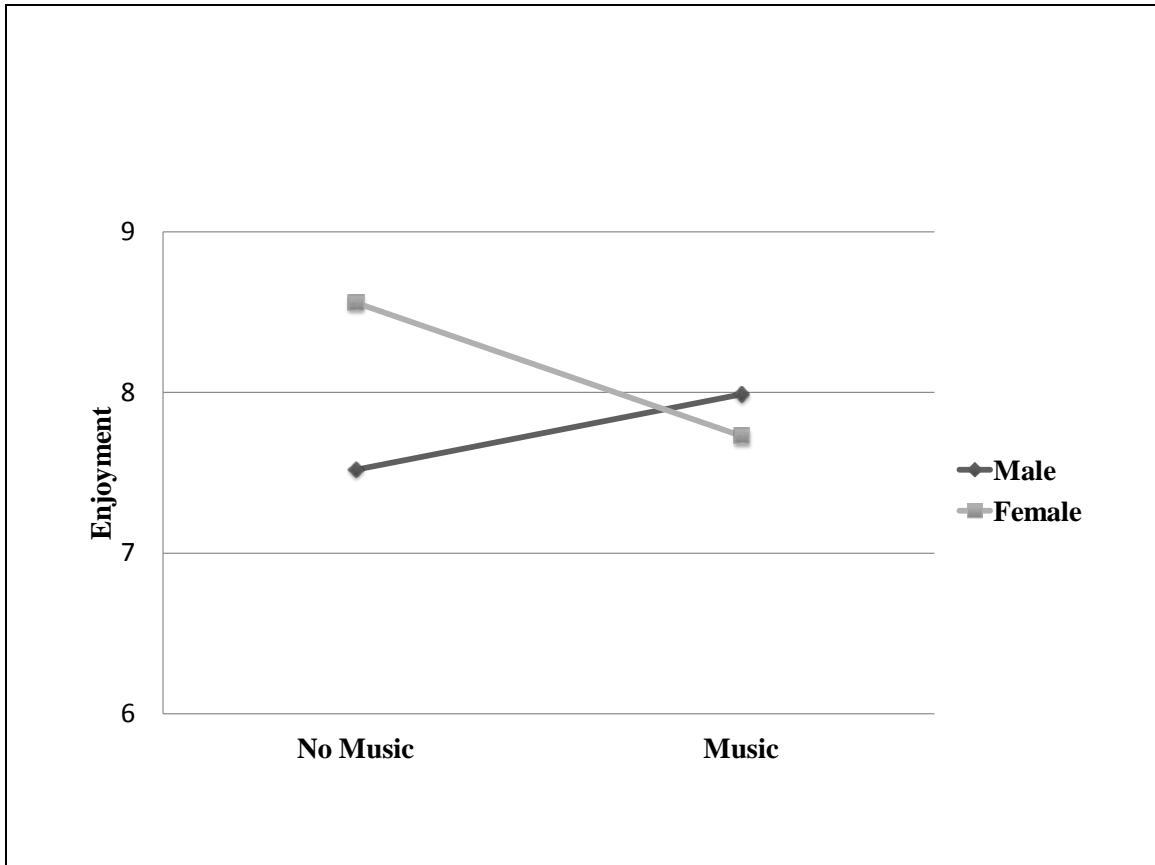Figure 3: Music and gender interaction for general approach behavior.

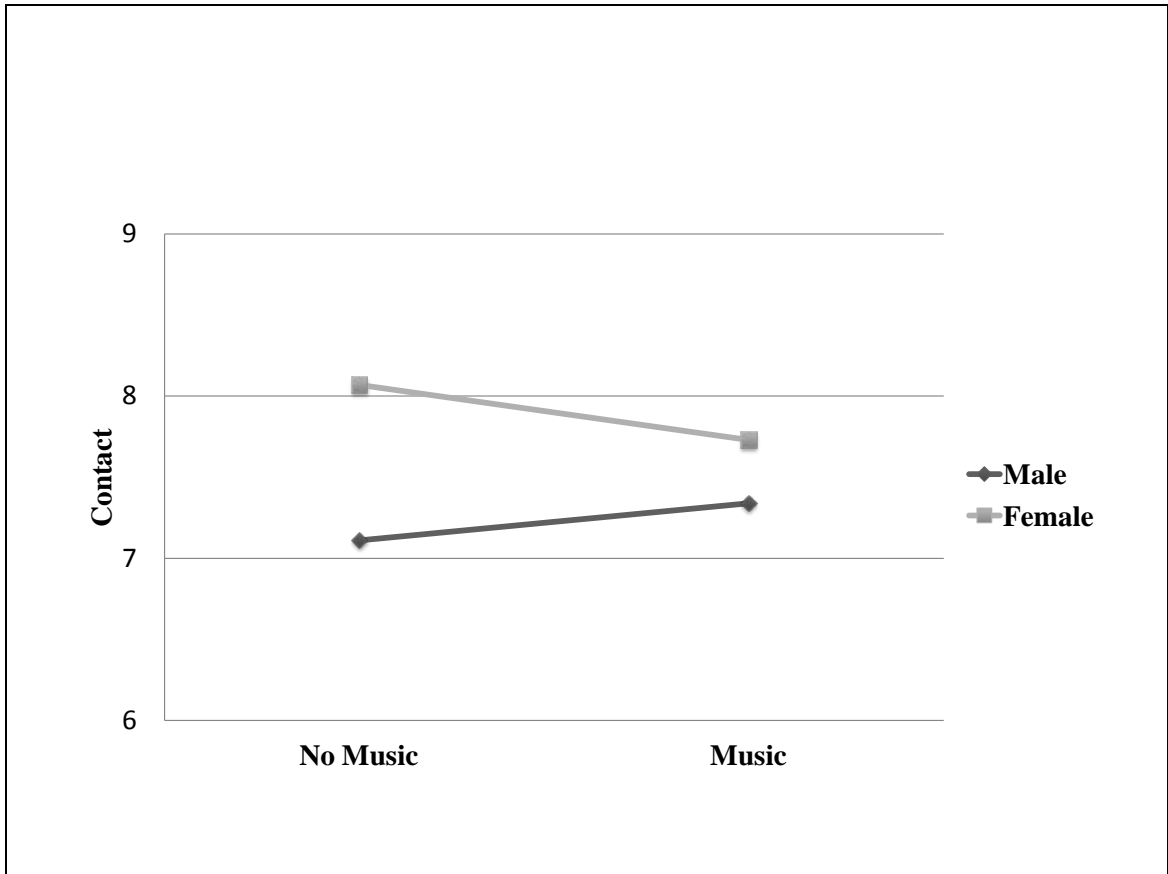Figure 4: Music and gender interaction for enjoyment.

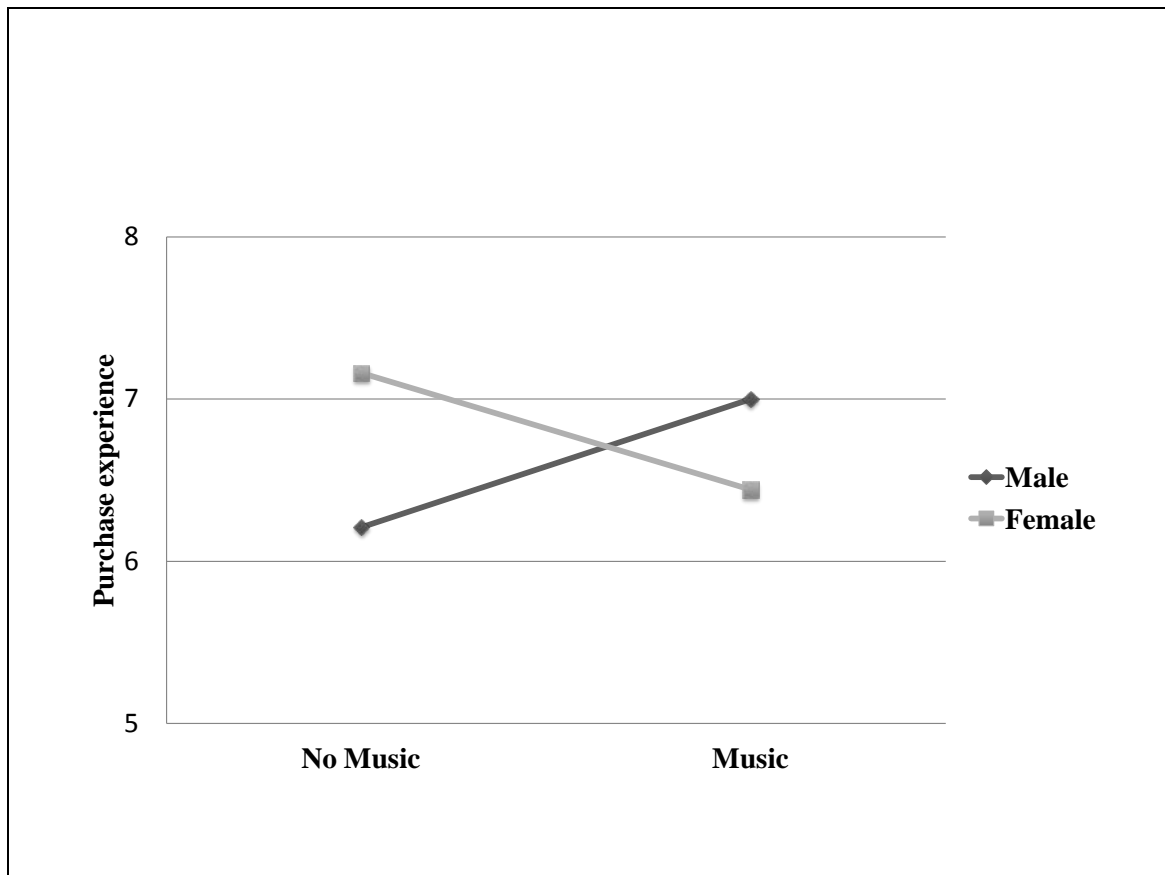Figure 5: Music and gender interaction for contact.

Figure 6: Music and gender interaction for purchase experience.

Table 1: Study I, multiple regression results.

	Approach/ Avoidance	Enjoyment	Time E	Contact	Purchase E
No Music					
Pleasure	-0.03	-0.10	-0.04	-0.03	0.03
Arousal	0.49***	0.45**	0.39**	0.52***	0.37**
R^2	0.20***	0.13**	0.11**	0.23***	0.13**
F	$F_{(2.68)}=9.558$	$F_{(2.68)}=6.275$	$F=(2.68)5.478$	$F=(2.67)=11.210$	$F_{(2.68)}=6.217$
Music					

Pleasure	0.22	0.11	0.19	0.10	0.28
Arousal	0.47***	0.59***	0.35**	0.38*	0.25
R^2	0.40***	0.43***	0.24***	0.19***	0.22***
F	$F(2.75)=27.119$	$F(2.75)=30.096$	$F(2.75)=12.856$	$F(2.75)=10.028$	$F(2.75)=11.894$

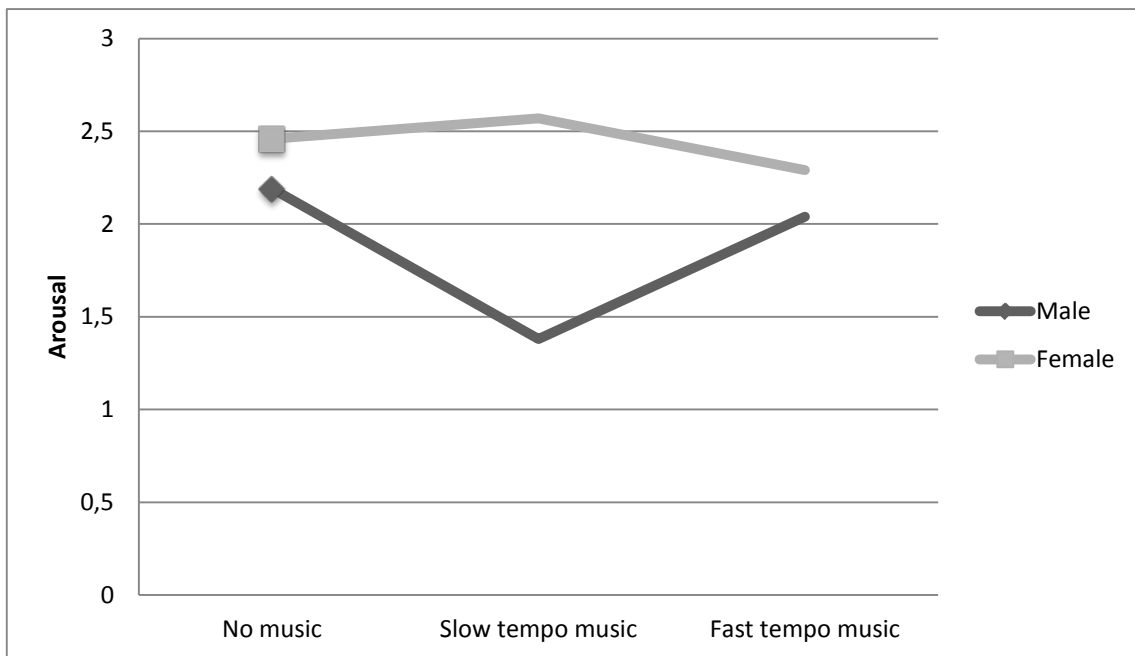Notes: *$p < .05$, ** $p < .01$, ***$p < .001$.

Figure 7: Music and gender interaction for arousal.

Table 2. Study II, multiple regression results.

	App/Avo	Enjoyment	Time E	Contact	Purchase E
No music					
Pleasure	0.15	0.24	0.003	0.11	0.13
Arousal	0.22	0.16	0.18	0.16	0.19
R^2	0.10**	0.11**	0.01	0.04	0.06*
F	$F_{(2.89)}=5.752$	$F_{(2.89)}=6.407$	$F_{(2.89)}=1.509$	$F_{(2.88)}=2.765$	$F_{(2.89)}=4.158$
Slow music					
Pleasure	0.28**	0.32***	0.17	0.14	0.19*
Arousal	0.25**	0.20*	0.21*	0.25**	0.18*
R^2	0.21***	0.21***	0.10***	0.11***	0.09***
F	$F_{(2.168)}=23.787$	$F_{(2.168)}=23.236$	$F_{(2.168)}=10.813$	$F_{(2.168)}=11.606$	$F_{(2.168)}=10.311$
Fast music					
Pleasure	0.55***	0.48***	0.53***	0.37**	0.32**
Arousal	0.05	0.15	-0.09	-0.006	0.11
R^2	0.33***	0.34***	0.21***	0.12***	0.16***
F	$F_{(2.133)}=34.635$	$F_{(2.133)}=36.262$	$F_{(2.133)}=18.523$	$F_{(2.133)}=10.512$	$F_{(2.133)}=13.398$

Notes: *$p < .05$, ** $p < .01$, ***$p < .001$.