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

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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), 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

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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 and Rossiter, 1982; Mehrabian and 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 and Rossiter (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 Routheaux (1999), financial returns (value of sales, quantity purchased, gross margins) (North et al., 2000, 2003), attitudes and perception (liking, brand loyalty, service quality) (Chebat et al., 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.

## 3. Study I

### 3.1. 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.

### 3.2. 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).

### 3.3. 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.

### 3.4. 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