



## Store music and customer loyalty to the store: Negative emotion as a mediator

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How to cite: Xu, J., & Yang, H. (2023). Store music and customer loyalty to the store: Negative emotion as a mediator. *Social Behavior and Personality: An international journal*, 51(4), e12318

Increasing customer store loyalty is a vital issue for retailers because maintaining an existing customer costs less than attracting a new customer in the service industry. We conducted an empirical study to examine the connections between store music, customers' negative emotion, and store loyalty. Data were collected through a paper-and-pencil survey of 405 customers who were shopping at a supermarket located in a major metropolitan area in China. Structural equation modeling was used for data analysis. Results showed that store music indirectly affected customers' store loyalty through negative emotion. That is, store music inhibited negative emotion, thereby enhancing store loyalty. The findings will assist managers in understanding the effect of store music on customers' loyalty.

### Keywords

store music, store environmental cue, negative emotion, store loyalty, customer response

### Article Highlights

- We found negative relationships between store music and customers' negative emotion, and between customers' negative emotion and store loyalty.
- Negative emotion played a full mediating role in the relationship between store music and customers' store loyalty.
- Store music enhanced store loyalty by inhibiting customers' negative emotion.

Greater market competition has created a climate where retailers are facing pressure to retain existing customers because the cost of attracting a new customer is much higher than that of retaining an existing one (Reichheld, 1996). Thus, increasing store loyalty has become an important issue for retailers, and how to enhance customer loyalty to a store is a popular research topic in consumer behavior literature. Researchers have paid much attention to the drivers of store loyalty, particularly the environment of the store (Assunção et al., 2014), because of claims that retailers can create a unique environment to influence customer shopping behavior (Kaltcheva & Weitz, 2006). As an ambient factor, store music has gained considerable interest among researchers and has been identified as a critical antecedent of consumer behavior (Michel et al., 2017). Thus, it is plausible to suggest that store music will affect store loyalty. Studies exploring the use of music to build customer loyalty in the retail environment have gained varying results. For example, Shashikala and Suresh (2013) indicated that ambient factors, including music, have a positive effect on customer loyalty in the shopping-mall context. However, Saffar (2016) did not find a direct effect of music on customer loyalty in the context of restaurants and coffee shops. Some researchers have also explored the mechanism linking music to consumer loyalty. Walsh et al. (2011) examined the relationship between coffee shop environmental cues, customer emotions, and store loyalty, and found that store music triggers feelings of arousal and pleasure in customers, and consequently

influences their store loyalty. Yang et al. (2022) also investigated the influence of store environmental cues on consumer emotion and intention to purchase luxury brands, and found that store music positively affects consumer emotion, which, in turn, enhances purchase intention. Koo and Kim (2013) proposed that store love functions as the mediator between store environmental cues and store loyalty; however, their results did not support the mediating role of store love between the environmental cue of music and store loyalty.

These mixed findings regarding the effect of the music cue on consumer loyalty suggest that more research is needed on the mechanism underlying the association between store music and customer loyalty to the store. There is a widespread belief that store music influences consumers' affect and behavior (Jain & Bagdare, 2011; Michel et al., 2017). Mehrabian and Russell (1974) proposed a model suggesting that the store environment triggers consumers' behavior by way of emotional states. This model has been applied to explore the effect of store environment on consumer loyalty (Koo & Kim, 2013; Walsh et al., 2011; Yang et al., 2022).

Some researchers have also argued that music in store is a distraction (Hynes & Manson, 2016). For example, d'Astous (2000) suggested that the store environment could create irritations among shoppers, thus inducing negative emotion. Much research attention has been paid to the role of positive emotion triggered by store music. There is an asymmetric influence of negative and positive emotion on consumer loyalty (Rychalski & Hudson, 2017), whereby negative information has greater weighting than does positive information (Mittal et al., 1998). Thus, we examined whether store music elevates or decreases negative emotions and, in turn, if the emotions elicited influence store loyalty by increasing store loyalty when negative emotions are decreased.

## The Current Study

Physical environment has been considered as the trigger of the impression that consumers form of a service organization (Bitner, 1992). Music is a component of the physical environment and is usually utilized by retailers to affect consumer behavior (Jain & Bagdare, 2011; Michel et al., 2017). Han and Ryu (2009) suggested that the physical store environment, including music, promotes consumers' evaluation of their overall experience in service settings and leads to their loyalty to service organizations. As Fulberg (2003) stated, using music in the retail environment is an effective way to develop consumer loyalty because music can create fully immersive in-store experiences. It has been argued that in service settings music contributes to consumer loyalty (Emir, 2016). Shashikala and Suresh (2013) also found support for the positive relationship between store music and consumer store loyalty. Suh et al. (2015) concluded that, as an ambient condition, music positively affects hotel guests' satisfaction, which, in turn, positively affects their loyalty. As seen from the findings reported above, customer loyalty is positively influenced either directly or indirectly by the music cue in service settings.

Music is considered to act through the mediators of mood and emotion (Landay & Harms, 2019), implying that the music cue exerts its effect on customers by inducing emotions. According to the model proposed by Mehrabian and Russell (1974), ambient cues induce customers' emotional states, resulting in approach-avoidance behavior in the store environment. I. Y. Lin (2004) argued that physical environment, including music, contributes to customers' image formation of service organizations, which precedes their emotional response. Music generally functions as a means to reduce stress and anxiety (Yehuda, 2011). People view shopping as a stress releaser, and retail stores with suitable ambient music can reduce customers' stress (Ghosh et al., 2010). Hassan and Khan (2020) revealed that music as an element of the atmosphere in a retail store reduces fashion consumers' emotional stress during their shopping experience.

Emotion is a key player in affecting consumer loyalty (Robinette et al., 2001). Studies have supported the negative relationship between negative emotion and consumer loyalty in the service industry. For example, H. Lin et al. (2020) stated that emotion is a predictor of customer loyalty intention in hospitality settings, and DeWitt et al. (2008) reported that negative emotion has a negative impact on customer loyalty in the hospitality context. Further, Ou and Verhoef (2017) conducted a study across 18 services industries, including stores engaged in different types of retailing, and concluded that negative emotion negatively affects customer loyalty. Negative emotion is viewed as unfavorable and

fosters avoidant behavioral intention, meaning that customers who experience negative emotional states perceive failure in consumption goal attainment for the current choice; thus, they tend to avoid that choice and show low loyalty (Ou & Verhoef, 2017).

We considered that in-store music may influence consumers' negative emotion, which, in turn, would influence their loyalty; in addition, in-store music may also facilitate customers' loyalty. Considering the objective of this study, we proposed a research model (see Figure 1) and the following research hypotheses:

**Hypothesis 1:** Music will positively affect customer store loyalty.

**Hypothesis 2:** Music will inhibit customer negative emotion and, consequently, will enhance customer store loyalty.

## Method

### Participants and Procedure

After obtaining approval from the Research Ethics Committee of our university, the survey was implemented at a store located in a major metropolitan area in China, with the cooperation of Olé, a supermarket that belongs to China Resources Vanguard. In the supermarket programmed music is used to enhance store atmosphere, with customer flow included in the criteria for gauging the success of this goal. For ethical reasons, the participants in this study were restricted to people aged over 18 years. Customers who were shopping in the supermarket were asked to fill out a paper-and-pencil survey that included a cover letter explaining the purpose of the study. We assured the customers that participation in our study was voluntary and that the information they provided would be kept confidential. We distributed 475 surveys and received 405 valid responses (rate of response = 85.26%).

Among the participants, 77.04% ( $n = 312$ ) were women and 22.96% ( $n = 93$ ) were men. The participants ranged in age from 20 to 45 years ( $M = 31.68$ ,  $SD = 8.37$ ). As regards education, 217 (53.58%) held a bachelor's degree, 129 (31.85%) held a master's degree or above, and 59 (14.57%) had a college degree or high school diploma. In terms of marital status, 263 (64.94%) were married and 142 (35.06%) were not. The sample was representative of customers of the focal supermarket.

### Measures

The survey was conducted in Chinese. Back-translation was used for the translation of measures originally developed in English, with the help of a bilingual researcher. A 5-point Likert response scale (1 = *strongly disagree*, 5 = *strongly agree*) was applied to measure all items.

#### **Music**

Participants' perception of the in-store music was measured with three items adopted from Yang et al. (2022): "This store has pleasant music," "This store has appropriate music," and "This store has bothersome music."

#### **Negative Emotion**

Negative emotion was measured with 10 items from Hamid and Cheng's (1996) Chinese Affect Scale. Sample items are "I feel sad," "I feel depressed," and "I feel disappointed."

#### **Store Loyalty**

Store loyalty was measured with four items from Koo and Kim (2013). A sample item is "I will buy products at this store again."

## Results

The means, standard deviations, reliability, and intercorrelation values for the study variables are presented in Table 1. The intercorrelations for the variables were significant and positive and did not exceed .50, thus meeting the necessary conditions for testing the hypotheses. First, we performed a confirmatory factor analysis to assess the reliability, convergent validity, and discriminant validity of the study variables. The results showed that all standardized factor loadings were above .70, composite reliability ranged from .76 to .92, and average variance extracted (AVE) ranged from .51 to .55. AVEs were greater than the square root of the correlation between the corresponding pair of constructs. Moreover, the hypothesized three-factor model fit the data well, chi square/degrees of freedom = 2.79, goodness of fit index = .92, Tucker–Lewis index = .94, comparative fit index = .95, root mean square error of approximation = .07. In sum, the measurement scales have acceptable levels of reliability, convergent validity, and discriminant validity.

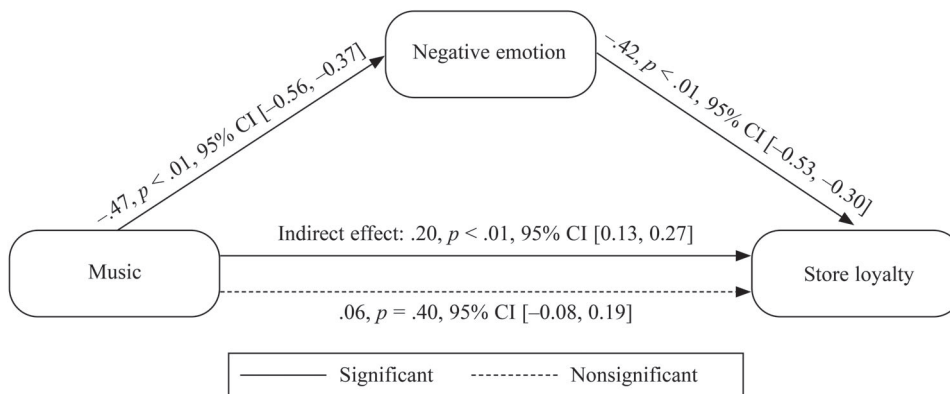
**Table 1. Means, Standard Deviations, Correlations, and Internal Reliabilities of Study Variables**

Variables	$\alpha$	$M$	$SD$	1	2	3
1. Music	.87	3.56	1.17	1		
2. Negative emotion	.89	3.41	0.97	-.47**	1	
3. Store loyalty	.92	3.68	0.81	.26**	-.45**	1

Note.  $N = 405$ .

\*\*  $p < .01$ .

Second, we conducted structural path modeling to examine the proposed hypotheses. In particular, we used bias-corrected bootstrapping analysis with 95% confidence interval (CIs) to test the mediating effect. According to Figure 1, music was positively but not significantly related to store loyalty, failing to support Hypothesis 1. However, music was significantly and negatively related to negative emotion, which was, in turn, significantly and negatively related to store loyalty. We performed a bias-corrected bootstrapping analysis with 5,000 resamples and the results revealed that the indirect effect of music on store loyalty via negative emotion was significant, supporting Hypothesis 2. These findings imply that negative emotion is a full mediator of the link between music and store loyalty.



**Figure 1. Results of the Proposed Model**

## Discussion

The primary purpose of this study was to determine whether in-store music influences customers' loyalty in a Chinese supermarket context, and whether negative emotion functions as a mediator of this relationship. We found support for the proposed relationships, except for the direct link between music and store loyalty. This study makes several noteworthy contributions to the existing research.

Previous researchers have generally emphasized store music that generates positive emotion and its subsequent impact on customer loyalty (Walsh et al., 2011; Yang et al., 2022). To our knowledge, no prior studies had examined negative emotion as a potential mechanism explaining the link between store music and store loyalty. Thus, we are the first to address this aspect of the effects of store music, and we put forward a conceptual framework linking store music to store loyalty both directly and also indirectly via customers' negative emotion. This framework accounts for the connections between in-store emotions and up- and downstream variables, and contributes to understanding of how music experienced at the point of purchase decreases consumers' negative emotion and increases their store loyalty.

Inconsistent with our prediction, the results showed that store music does not enhance store loyalty. As an ambient environmental condition, music is seen as an inducer of consumer behavior (Jain & Bagdare, 2011; Michel et al., 2017). According to our finding, customers may not show loyalty even if the store they are shopping in plays music they perceive as pleasant or that makes them feel happy. This is in line with Saffar (2016), whose research results on the effect of environment, color, and music on loyalty also did not support a positive link between store music and store loyalty. Thus, store music is not sufficient to keep the customer loyal.

We found that negative emotion is a full mediator between store music and customers' store loyalty, which is in line with the idea that consumers generate cognitive, emotional, and physiological responses to the physical environment and, consequently, adopt specific behavior (Bitner, 1992). Our results reveal that store music indirectly affects store loyalty through customers' negative emotion. This finding goes beyond that of prior studies, which primarily emphasized the mechanism of the role of positive emotion in the relationship between store music and store loyalty (Walsh et al., 2011; Yang et al., 2022). We addressed the role of negative emotion in the relationship of store music and customer loyalty to the store, and found that, indeed, negative emotion was the link between the music and a reduction in loyalty.

From a managerial perspective, these findings can assist managers to better understand how store music contributes to inducing negative emotion in customers, which eventually influences their loyalty to that store. Although the relationship between store music and store loyalty was not significantly positive, managers should not overlook the importance of store music because it can indirectly affect store loyalty through customer negative emotion. Thus, to improve the store environment and reduce the in-store negative emotional state of customers, store managers should use music that customers find pleasant or that makes them feel happy. We found that negative emotion has a negative influence on store loyalty; thus, store managers should take into consideration the potential of using in-store music to alleviate customers' negative emotions so that this can contribute to customer loyalty.

This study has some limitations. First, the study was conducted with the customers of a specific supermarket in a Chinese major metropolitan area, which might limit the generalizability of our findings. Future researchers could use a wider range of participants as a sample to overcome this limitation. Second, we did not examine personal characteristics, such as personality, which it has been suggested may moderate the effect of environmental stimuli on consumer loyalty (Jani & Han, 2015). Future researchers could introduce personal characteristics into the proposed model as moderating variables. Third, when asking people how they find the music, their attention is brought to the music, and that might have been the cause of the effect; that is to say, priming participants to dedicate their attention to the music may have been the reason for their decreased negative emotions, rather than the actual music itself. In addition, the human interaction with the experimenter could have elevated the negative emotions. Future researchers could use an experimental, rather than a cross-sectional, design to overcome these issues.

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