The psychological effects of music: Implications for hotel firms

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Abstract
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If used properly, music can be a useful tool employed by hoteliers. This article synthesizes most, if not all, of the recent and seminal work from a variety of disciplines to outline the positive effects that atmospheric music can have on a hotel's patrons and employees. Specifically, the psychological influences of music in a hotel's physical environments, a hotel's telephone system, and a hotel's proprietary website are discussed. In terms of the physical environment, music can: 1) cause guests to spend more time and money in an establishment; 2) influence buyer/seller interactions; 3) improve customers' attitudes during a wait; 4) amend guests' perceptions of brand personality and décor; and 5) enhance employee productivity. Regarding telephone interactions, evidence suggests that the proper use of music can bolster customers' satisfaction with the telephone encounter. Lastly, emerging research indicates that website music can enhance viewers' arousal, interest, satisfaction, and learning.

INTRODUCTION

While music is a popular topic of study in the marketing and psychology literature, the topic is seldom addressed in the hospitality literature. Most hoteliers have long been aware of the fact that some sort of music should be played in their public areas, but are they knowledgeable about: all the effects of atmospheric music on guests; the influence of atmospheric music on employees; the psychological impacts on guests (or potential guests) of playing music telephonically; or the psychological outcomes on potential guests of airing music on their proprietary websites? A recent study conducted within the hospitality industry revealed that many discrepancies exist between what hospitality managers think are the psychological effects of music on customers and what existing theories state are the psychological effects (Areni, 2003). Therefore, the overriding objective of this article is to integrate theories and empirical findings from diverse disciplines into a series of discussions that describe how hoteliers can capitalize on the psychological effects of music. The intent is to shore-up the gap between practice and scholarly research by specifically describing: 1) the influence of music in the hotel's physical environment on consumers' attitudes and behaviors; 2) the impact of music in the physical environment on employee performance; 3) the effects of music on the

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telephone on consumer psychology; and 4) the influence of music on a hotel company's proprietary website.

This contribution to the hospitality literature is needed because, as detailed in the remainder of this article, the proper use of music can have many positive psychological and sociological influences within hotels. Capitalizing on these influences can serve a competitive advantage in a marketplace in which competition for all hotel customer segments is on the rise. Moreover, it is through organizing and synthesizing the various streams of music research that future research directions can be identified.

MUSIC WITHIN THE HOTEL'S PHYSICAL ENVIRONMENT

The influence of physical environment music on time and money

Past research indicates that the proper use of music within a physical environment can cause customers to spend more time within that environment (Milliman, 1982; 1986). For example, a study conducted within a restaurant setting found that slow-tempo background music caused patrons to dine longer than did fast-tempo music or the absence of music (Milliman, 1986). In another study, slow-paced music also caused supermarket shoppers to spend an increased length of time in the store (Milliman, 1982). Not too surprising, however, the findings from a third study indicated that if the music is perceived as too loud then consumers evidently will spend a shorter length of time in the setting (Smith and Curnow, 1966).

From a pragmatic perspective, in certain situations the presence of background music causes patrons to linger longer because the music blocks any potential negative background noise (e.g. the clanking of pots and pans) and the background music creates the perception that an establishment is not empty (Areni, 2003). From a theoretical perspective, the finding that slow-tempo music can cause consumers to spend more time within an environment can be found in Mehrabian and Russell's (1974a) approach/avoidance model. According to this model, all responses to a physical setting can be characterized as an approach or an avoidance behavior. Approach behaviors encompass such actions as physically moving toward something, affiliating with others in the environment both verbally and through the use of eye contact, and conducting a large number of tasks within the environment (Booms and Bitner, 1980). Conversely, avoidance behavior entails attempting to exit the environment, a propensity to remain inanimate while in the environment, and an inclination to ignore communication attempts from others (Donovan and Rossiter, 1982). It is argued that slow-paced music can cause individuals to remain in an environment longer because the music creates a relaxing environment, thus spurring approach behavior (Milliman, 1982). It is not unreasonable to present this argument as it has been well-documented by environmental psychologists that individuals react with various sets of emotions in various settings, in turn, triggering approach or avoidance behaviors (Donovan and Rossiter, 1982).

Along these same lines, several studies also support the notion that the proper use of music can cause consumers to spend more money (Areni and Kim, 1993; Milliman, 1986). That is, research conducted in a restaurant setting found that since consumers spend more time in an establishment with the presence of slow-tempo music, they consequently order more drinks (Milliman, 1986). In a similar vein, a different study examined the effects of top 40 and classical music on wine shoppers and found that more expensive wines were purchased in the classical music condition (Areni and Kim, 1993). It was argued that classical music often translates into an air of customer sophistication – which can translate into increased spending. Again, theoretical anchoring for these findings can be found in the approach/avoidance paradigm and the ability of music to trigger positive emotions and approach behaviors. Interestingly, one study reports that some consumers have become cognizant of the fact that particular establishments play classical music to stimulate spending (Areni, 2003). Therefore, the study speculates that jazz music might be just as effective in achieving the desired effect.

Existing literature suggests that music has the largest impact on consumer spending when

the music and the given scenario are highly congruent. According to congruency theory, consumers spend more when they perceive that the music type is congruent with the business environment (Jacob, 2006). For example, in an experiment conducted in a tavern, subjects drank more when drinking songs were aired (Jacob, 2006). Moreover, in a different study conducted in a retail environment, French music increased the sales of French wines; and the same effect was found with German music on German wine (North, Hargreaves and McKendrick, 1999). Based upon this evidence, hoteliers are advised to consider the music/environment congruency throughout their various customer contact areas.

The influence of physical environment music on buyer/seller interactions

Research conducted within the field of clinical psychology indicates that the presence of background music influences how individuals interact with one another (Dollins, 1956; Sommer, 1957). These studies found that the presence of background music increases conversation and even the extent of smiling and eye contact between individuals. Interestingly, though, when this initial research was extended in additional studies it was revealed that it is generally soothing music, as opposed to stimulating music, that triggered these responses between people (Mezzano and Prueter, 1974; Prueter and Mezzano, 1973; Stratton and Zalanowski, 1984).

As already stated, all early research investigating the influence of music on human interaction was conducted within the field of clinical psychology. Therefore, in 1995 Dube, Chebat and Morin investigated whether previous findings are applicable to buyer–seller interactions in business settings. That is, they conducted a between-subjects experimental design to assess changes in human interaction caused by background music in a bank branch. In this experiment, they too found that the proper background music has the ability to increase verbal exchange and other affiliative behaviors even in the context of a company representative transacting with a customer. Essentially, it was found that background music reduces anxiety and places both the guest and the company representative in a more relaxed state. Consequently, based upon this extant research it is plausible to state that atmospheric music played in the physical environment can positively influence buyer/seller interactions while in a hotel.

The finding that background music is capable of placing the guests and associates in more relaxed states causing them to converse and smile more has significant implications for hoteliers. In the hotel business, the satisfaction of the guest is highly dependent upon the individual interactions between the guests and associates. In fact, the services marketing literature indicates that it is very difficult for a guest to psychologically distinguish between company actions and employee actions (Zeithaml, Bitner and Gremler, 2006). In other words, a less-than-ideal interaction with one hotel associate can potentially tarnish a guest's perception of the entire company's image. Thus, since music can help facilitate positive encounters then it should be used to do so.

The influence of physical environment music during a wait

Sometimes customer waiting within a hotel (e.g. at the front desk or in a restaurant outlet) is inevitable. Hence, the following question surfaces: can music reduce customers' perceptions of waiting time length? According to Zakay's (1989) resource allocation model, a person's 'time estimate' is determined by the number of 'time units' recorded by a mental timer which is activated when an individual pays attention to the passage of time. While early research supported the notion that playing music decreases consumers' time estimates while waiting (Zakay and Hornik, 1991), more recent research does not support this finding (Hui, Dube and Chebat, 1997; Kellaris and Kent, 1992). That is, recent research indicates that when a consumer likes a particular song that is being played during a wait, then the estimated waiting time is actually perceived as being longer (Kellaris and Kent, 1992). Theoretical anchoring for this finding can be found in the 'storage size model' that posits that a time estimate is positively correlated with the

amount of information processed during the time period (Ornstein, 1969). According to this line of reasoning, when a person likes a song, s/he processes more information during the wait, thus increasing time estimates.

Nevertheless, playing background music can circumvent some of the negative effects of customer waiting (Katz, Larson and Larson, 1991; Larson, 1987). When a customer incurs a wait, not only does s/he lose time (an economic cost), but also s/he may experience stress caused by the wait [a psychological cost] (Osuna, 1985). Research indicates that music can reduce this wait induced stress because music is a powerful mood influencer (Hui et al., 1997). Therefore, a customer's emotional response to the wait is not as negative when music is playing than when music is absent. Moreover, the positive emotions spawned by the music may spillover to the customer's attitudes towards other aspects of the service provider (Hui et al., 1997). Evidently, this enhanced mood is more robust when the consumer enjoys the type of music played.

The influence of physical environment music on perceptions of brand personality

A brand's personality can be described as 'the set of human characteristics associated with a brand' (Aaker, 1997: 347). A brand's personality can allow an individual a means to express his/her self (Belk, 1988), an ideal self (Malhotra, 1988), or specific characteristics of self through the use of the brand (Kleine, Kleine and Kernan, 1993). For example, one could stay at a well-known luxury resort not only to enjoy the resort's offerings, but also to enhance his/her self-concept. Thus, brand personality can serve as a brand differentiator (Halliday, 1996) and as a driver of consumer preference and usage (Biel, 1993; Ogilvy, 1985). In fact, a well-defined brand personality can foster higher emotional attachment to a brand (Biel, 1993) and can serve as a building block for trust and loyalty (Fournier, 1994). Furthermore, a brand's personality can serve as a sustainable competitive advantage for a firm because it is much more difficult to imitate than product attributes (Ang and Lim, 2006).

Any contact that a consumer has with a brand influences his/her brand personality perceptions (Plummer, 1985). In the hotel business, such contact can transpire in a hotel's physical environment. Physical environments can, therefore, create moods (Golledge, 1987; Kaplan and Kaplan, 1982; Rapoport, 1982) and can function as aesthetic stimuli capable of forming or altering perceptions and attitudes (Wohlwill, 1976). One specific component of this physical environment, music, is known to evoke attitudinal responses in consumers (Bruner, 1990). Thus, atmospheric music played in the physical environment can influence customers' perceptions of the hotel's brand personality. Empirical evidence to support the notion that music can influence perceptions of brand personality was found in an experiment conducted upon undergraduate students in which the presence of classical music (versus) no music spawned them to rate a restaurant as more 'intelligent' (Magnini and Thelen, 2008).

In recent years, hotel firms are finding it increasingly difficult to differentiate themselves from one another (Cai and Hobson, 2004). With the advent of internet shop bots that check hundreds of sites, gather and assemble information, and bring it back to the consumer, many hotels are at risk of becoming price-based commodities. Thus, the research that indicates that the use of music in a physical environment can signal a brand's personality is useful information for hoteliers.

The influence of physical environment music on perceptions of décor

Past findings indicate that emotional responses to the physical environment can be transmitted to individuals and/or objects within that space (Maslow and Mintz, 1956; Mintz, 1956; Obermiller and Bitner, 1984). Music, a facet of the physical environment, can, therefore, influence this transfer of emotional responses to objects within a physical space. From a theoretical perspective, music played in the physical environment is capable of stimulating moods and emotions (Bruner, 1990). More specifically, the proper use of music is known to increase a customer's pleasure and arousal

(Baker, Levy and Grewal, 1992; Garlin and Owen, 2006). Pleasure refers to the valence of a feeling state, whereas arousal refers to its level of activation (Holbrook and Garner, 2000). In other words, an affective approach should be used to study service environments (Donovan and Rossiter, 1982). This approach relies on the notion that a consumer's perceptions of, and behavior within, a given environment are a function of emotional states created by that environment (Mehrabian and Russell, 1974b). If music is capable of causing pleasure to increase, and since attitudinal responses can be transmitted to objects, then perceptions of décor should improve as well.

The proposition that music can influence perceptions of décor was empirically validated in an experiment conducted upon undergraduate students in which the presence of classical music (versus) no music spawned them to rate a restaurant as more decorative (Magnini and Thelen, 2008). Again, since many hotel companies have had difficulty differentiating themselves in recent years (Cai and Hobson, 2004), the finding that classical music can influence perceptions of décor is useful for practitioners.

The influence of physical environment music on employee productivity

There have been a number of studies throughout the years that have examined the effects of background music on employee performance (Burris-Meyer, 1943; Fox and Embrey, 1972; Humes, 1941). The general consensus of most of the past studies is that music has a small positive influence on employee performance (Sundstrom, 1986). For instance, research conducted by Wyatt and Langdon (1937) found that, in their sample, the productivity of factory workers increases by 6–11% when background music is present. In a similar study, conducted on radio assemblers, productivity increased between 4–25% (Smith, 1947).

Not only have researchers investigated the main effect of the presence of background music on productivity, but they have also examined the potential influence of type of music and the length of programming. Most of these latter studies have failed to find any significant influence of music type (Newman, Hunt and Rhodes, 1956) or whether workers are continuously [versus occasionally] exposed (Fox, 1971). Nevertheless, despite these insignificant results, the fact remains that music has a well-documented positive influence on employee productivity.

It has been empirically demonstrated that this increase in productivity is due to the following reactions that employees typically have to music: 1) increased relaxation; 2) reduced nervousness; 3) increased enthusiasm; and 4) decreased fatigue (Oldham et al., 1995; Terry, 1975).

This contention that playing background music increases productivity comes with some limitations that need to be recognized. First, if music is repeated too frequently, it can have a negative impact on employee performance (Areni, 2003). Also, few could refute that music should be present in front-of-the-house areas that are shared by guests and associates, but should music be piped into back-of-the-house areas such as in a kitchen or in the laundry area? With modern technology, doing so would be relatively inexpensive, but survey research indicates that some employees (21% according to one study) prefer no music (Muzak, 1989) and even find background music to be annoying (Uhrbock, 1961). Of course other employees, particularly those in repetitive motion job positions (i.e. in the laundry or dish area), may welcome music.

Some of the limitations associated with airing music in the back-of-the-house may be circumvented by allowing employees to utilize personal headsets. At first glance, hotel operators may frown at the suggestion of the use of such devices, but research is needed to address the feasibility of the idea since it is typically non-customer contact employees, particularly those in repetitive motion roles, that experience the highest rates of turnover. From a theoretical perspective, the notion of *environmental interface* contends that personal stereo headsets reduce the number of distractions and interruptions an associate experiences (Lipman, 1993; Oldham et al., 1995). Headsets achieve this by 1) muffling equipment noise and peripheral conversations and 2) headset users are perceived by co-workers

as less available for conversation (Huber, 1984; Powell, 1994). From a different perspective, workers often desire a sense of control over workplace variables (Greenberger and Strasser, 1986) and the ability to program their personal stereos may produce a sense of control, thus increasing workplace satisfaction (Oldham et al., 1995). Lastly, it is not uncommon for a diverse set of employees to bicker regarding music type; hence, the use of personal stereo headsets could circumvent the issue.

MUSIC ON THE HOTEL'S TELEPHONE SYSTEM

The influence of telephone music on customer satisfaction

When transacting via the telephone, sometimes customers need to be placed on hold. This wait can occur when the customer is calling the hotel from an outside location or can also occur when a hotel guest calls the PBX operator in order to be connected to another party. In the situation in which a customer is calling from outside the hotel, the purpose of the call may be to discuss prices and accommodations; hence, this initial contact via the telephone is of critical importance to the hotel firm. Nevertheless, regardless of the situation, research indicates that how this telephone waiting time is managed can have a significant influence on customer satisfaction (Hui et al., 1997). Interestingly, managing customer perceptions during a telephone wait is different than managing perceptions during a wait in a physical environment (Whiting and Donthu, 2006). This is because, during a telephone wait, the customer is not surrounded by the servicescape; therefore, s/he cannot experience sights and smells. Also, on the telephone, the customer does not have the capability to see the number of customers waiting in front of him/her. For these reasons, music is one of the only variables that can be used to influence perceptions of the wait.

In terms of music's impact on perceived wait length while on the telephone, two studies report opposing findings on this matter. That is, the findings of one study support the notion that music reduces perceived waiting time on the telephone (Whiting and Donthu, 2006), while another study finds no such support (Tom, Burns and Zeng, 1997). Nevertheless, both studies report that music played during a telephone wait improves the customer's attitude toward the wait and, therefore, increases overall customer satisfaction (Whiting and Donthu, 2006; Tom et al., 1997). Logic supporting this finding includes the rationale that when a customer is placed on hold, the music serves as a sub-conscious means of letting the consumer know that s/he is still connected to the company (Whiting and Donthu, 2006).

It may also be a wise idea to infuse the musical line-up with information regarding the hotel's features and amenities. If done so, however, it is important that the hotel information is rich and varied so that the person on hold does not repeatedly receive the same information. It has been posited in extant literature, that the selection of music played to callers waiting on the telephone can influence the image of an establishment (Areni, 2003), but future research is needed to validate this assertion.

MUSIC ON THE HOTEL'S WEBSITE

The influence of website music on viewer's arousal and interest

While companies and researchers alike have paid attention to visual site design issues for more than a decade, a website's audio stimuli have only recently been identified as a topic of study. In a recent experiment, for example, ninety-five students were asked to rate twelve websites selling electronics products (Ma, 2006). Two of the twelve websites were embedded with music. The emotional and attitudinal responses regarding the websites revealed that background music does bolster viewer arousal and interest.

Theoretical support for these findings can be found in a concept known as 'telepresence' which can be defined as the degree to which an individual feels present in the mediated environment (the virtual environment), rather than in the his/her immediate physical environment (Steur, 1992). That is, whenever a person is viewing a website s/he is simultaneously experiencing two environments: 1) the mediated environment; and 2) his/her actual physical

environment. These two environments are, in a sense, in competition with each other for the attention of the individual (Sautter, Hyman and Lukosius, 2004). Music emitted from the website can increase the individual's telepresence because such music draws attention to the virtual environment. Heightened telepresence is typically associated with increased arousal and interest in a website since the individual is paying less attention to his/her physical environment.

The influence of website music on viewer's satisfaction and learning

In addition to increasing telepresence, music also improves the 'flow' of a website (Wang and Chang, 2006). Related to the concept of telepresence, 'flow' can be described as the state occurring during internet usage which is: '1) characterized by a seamless sequence of responses facilitated by machine interactivity, 2) intrinsically enjoyable, 3) accompanied by a loss of self-consciousness, and 4) self-reinforcing' (Hoffman and Novak, 1996). There are several consequences of increased flow. First, consumers who experience a heightened 'flow state' report more positive subjective experiences than those who do not perceive an adequate flow state. These subjective experiences include improved mood while viewing the site and overall satisfaction with the site (Hoffman and Novak, 1996). Second, research indicates that consumers in a robust 'flow state' are more likely to retain what they read on a website than those in a lower state of flow (Hoffman and Novak, 1996). Hence, learning is a documented outcome of the flow state. Therefore, to summarize the above logic, atmospheric music played on the hotel's proprietary website can increase the viewer's satisfaction and learning while viewing the site. Lastly, it is prudent to mention that there is little negative consequence to airing music on the hotel company's proprietary website because a viewer always has the option of muting it.

DISCUSSION

This article explores the potential power of music in today's highly competitive marketplace. It is the first to synthesize streams of research from the psychology, marketing, hospitality, and organizational behavior literature into a discussion of the influences of music. Implications of atmospheric music, telephone music, and website music should not be ignored. Further, by organizing and consolidating our current knowledge of the psychological effects of music additional research paths can be identified.

A potential avenue for future research lies in the fact that much of the empirical evidence referenced in this article has yet to be tested within the hospitality industry. Doing so would allow for the identification and better understanding of mediating and moderating variables unique to hospitality settings. In further testing music's effects in hospitality venues, the utilization of both qualitative and quantitative iterations could prove fruitful in advancing our body of knowledge. More specifically, due to the high visual component that characterizes the hospitality and tourism field, qualitative projective techniques (Westwood, 2007) may be particularly useful in enriching our knowledge of music's influence in the industry.

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