Title:  Music and Consumer Behaviour: To Play or Not To Play

Track: Retailing Marketing
ABSTRACT

This study focuses on the links between consumer behaviour and environmental factors through changes in emotional states. Customers of a major Chinese optical retail store were exposed to different types of music in an experiment lasting 3 days for it. Participants (n=226) reported their emotional and behavioural responses in an exit survey. The results of this study find support for music as an important environmental stimulus of consumer behaviour. For instance, not playing music is found to be better than playing the wrong type of music when it comes to in service environment evaluation by consumers. Additionally, music does ameliorate the potential negative emotional response by consumers to waiting regardless of music valence. This study also finds that ‘pleasure’ positively enhances behavioural responses when liked music is played whilst arousal is only significantly related to wait in which the greater the experienced ‘arousal’, the more negative response to wait. The findings however point to some inconsistencies with the predictions of Mehrabian-Russell’s (1974) model. Nonetheless, this study contributes to a better understanding of consumers’ emotions and behaviours in response to music manipulation. It also offers retailers practical insights into how to create competitive advantages by using music as an effective tool for managing in-store atmospherics.
INTRODUCTION
Previous studies have shown that consumer behaviour is often shaped by in-store atmospherics and environmental ambient conditions. This current work adds to these studies through its exploration of the effects of music on customers’ shopping experiences in a Chinese retail environment. It is an important addition given the paucity of research in this context; and, especially given China’s emergence as a significant retail market in recent years.

RESEARCH RATIONALE AND OBJECTIVES
Studies in this area have generally focused on retail environments for the purchase and/or consumption of services and non-durable goods e.g. in supermarkets and restaurants (Milliman, 1982, 1986; Yalch and Spangenberg, 1988). Given the foregoing, one of this study’s key objectives is to gain insights into consumer behaviour in environments that combine both a service and manufacturing element. Its research setting is therefore a major Chinese optician’s store. As well as being durable goods that are not everyday purchases, glasses also combine both a service and manufacturing element, which often means that customers have to wait in-store for collection. The waiting can sometimes be for periods of up to 1 hour. This certainly makes some of the issues around emotional responses to service and waiting time quite important. Another important objective of this study is to gain a better understanding of consumer behaviour in one of the most important emergent retail markets i.e. China. Finally, the use of an in-situ research methodology, which allowed data collection in an actual retail setting, enabled the researchers to capture consumers’ moods and emotions much more accurately; and more importantly, during their exposures to certain in-store environmental cues and stimuli.

BACKGROUND AND LITERATURE REVIEW
A number of authors have in the past highlighted the key role played by in-store environmental conditions (see for examples Kotler, 1973; Bruner, 1990; Bitner, 1992) and how these lead to emotional responses by consumers, which can in turn trigger purchase behavior on their part (Darden and Babin 1994; Baker, Grewal and Levy, 1992). Bitner (1992) indeed proposes the notion of “servicescape” – i.e. the built or man-made environment – as well as three types of objective, physical, and measurable stimuli that constitute a servicescape: ambient conditions, spatial layout and functionality; and, signs symbols and artefacts. These, Bitner (1992:59) argues, have significant implications on how consumers “respond cognitively, emotionally, and physiologically to the environment”. The influence of environmental cues and stimuli has certainly been examined and explained by several of environmental psychologists, notably Mehrabian and Russell (1974) and their S-O-R model (see for examples Mehrabian and Russell, 1974; Donovan and Rossiter, 1982, Donovan et al 1994). Mehrabian and Russell’s (1974) S-O-R model, for instance, primarily posits that customer interactions with certain features of the environment i.e. environmental stimuli (S) arouse a range of emotional states (O), which can then trigger approach-avoidance behaviors (R) in individuals. Approach behaviors, include a desire to spend more time in the environment looking and exploring around as well as enhanced communications with others within that environment. Avoidance behaviors are exactly the opposite. The three basic emotional states, proposed by Mehrabian and Russell (1974), which mediate these approach-avoidance behaviors are: pleasure, arousal and dominance (PAD). Although not specifically conceptualized for the retail environment, the Mehrabian and Russell (1974) model has been, in recent decades, been adapted to the retailing and marketing environments by commentators like Baker et al (1992). A number of studies have in fact highlighted the importance of music in retail stores and environments as a key atmospheric and environmental variable in eliciting a range of cognitive and behavioural consumer responses (see for examples Oakes, 2003; Alpert and Alpert, 1990; Areni, 2003; Milliman, 1982, 1986; Morin et al, 2007). Areni (2003), for instance, contends that music can help manage customers’ perceptions of time; and, also determine how long a customer stays within the store environment as well as what they do within it. Furthermore, Morin et al., (2007), also contend that pleasant music has favourable effects on retail outcomes in terms of consumers’ positive service evaluations and purchase intentions.

The notion of music as part of the ambient environmental conditions which have implications on the behaviour of customers has been explored by a number of authors who have argued that it can elicit a number of responses e.g. cognitive – music tempo having an effect on customers perception of their waiting time, which they perceive to be shorter when music is present (Oakes, 2003); emotional – music as a powerful stimulus affecting moods with happy moods the result of happy music (Bruner 1990; Alpert and Alpert, 1990), sad music evoking negative consumption emotions as compared to happy music (Lin and Wu, 2006); and, behavioural – pleasant music leading to stronger intentions to purchase (Morin et al, 2007), slow tempo music
resulting in customers staying longer and spending significant more in a supermarket (Milliman, 1982) and restaurant (Milliman, 1986).

Music is thus important for marketers and retailers especially as an arguably powerful emotional stimulus capable of evoking different cognitive and behavioural responses in consumers (Bitner, 1992). This is more so given its use by consumers, as part of wider environmental cues or influences, in their cognitive processing and evaluation of the value of an offering by retailers. Bitner (1992:63) indeed posits that “in addition to influencing cognitions, the perceived “servicescape” may elicit emotional responses that in tum influence behaviors”. These influences, it has been argued by a number of other commentators, lead to certain emotional states, namely: pleasure, arousal and dominance (PAD). Donovan and Rossiter (1982) have, for instance, identified upbeat music as one of the in-store stimuli that induce ‘arousal’. Some studies have found positive relationships between both ‘arousal’ and ‘pleasure’ with customers’ willingness to purchase in-store and affiliations to the store (see for examples, Baker et al. 1992; Sherman et al 1997; Sweeney and Wyber, 2002; Dube et al., 1995). Other commentators have focused on the properties of music and consequent implications of in-store or background music on consumers’ behaviours, moods and emotional responses to waiting (Andersson et al., 2012; Hui et al., 1997; Gorn, 1982). These have covered a range of areas including music valence – liked/not-liked – and its influence on time perceptions (Gorn, 1982, Kellaris and Kent, 1991). Additionally, the mood effect of music “may then influence consumers’ emotional response to the wait (e.g., getting less upset with the wait), which has been shown to affect the evaluation of any service encounter that involves waiting” (Hui et al.,1997:88). Based on the above literature review, Figure 1 in Appendix A represents the conceptual framework for the hypotheses tested in this study.

RESEARCH METHOD AND HYPOTHESES JUSTIFICATION

The research method used in this study is an experiment conducted in a major Chinese optical retailer’s store using real consumers and based on several non-directional hypotheses. It is used to examine the implications of a number of environmental stimuli including music tempo, genre as well as valence. However, given the fact that tempo and genre have been a focus of many previous studies – unlike valence – and some of the interesting insights around the latter as well as demands for brevity, this paper’s focus is on the selected number of hypotheses outlined below. Whereas H1 and H2 are general ones, H3, H4 and H5 relate to the impact of music on such customers’ emotional states as ‘pleasure’ and ‘arousal’ and how these will in turn affect their behaviour.

H1 Playing music will affect customers’ (a) approach-avoidance behaviour, (b) emotional evaluation of service environment and (c) emotional response to wait.

H2 The valence of music (i.e. likeability of music) played will affect customers’ (a) approach-avoidance behaviour, (b) emotional evaluation of service environment and (c) emotional response to wait.

H3 The valence of music (i.e. likeability of music) played in the retail service environment will affect customers’ levels of (a) pleasure and (b) arousal.

H4 The levels of pleasure will predict customers’ (a) approach-avoidance behaviour, (b) emotional evaluation of service environment and (c) emotional response to wait.

H5 The levels of arousal will predict customers’ (a) approach-avoidance behaviour, (b) emotional evaluation of service environment and (c) emotional response to wait.

The experimental manipulation included two musical stimuli that vary according to two levels of music valence (‘like’ and ‘dislike’) and a ‘no music’ control group. The likeability factor was predetermined in a survey of 100 store customers randomly selected in the weeks prior to the actual experiment. The experiment took place over 3 days with ‘liked’ and ‘disliked’ music played on Day 1 and 2 respectively and ‘no music’ on Day 3. The participating store has been in the optical business for over 30 years. In terms of process, a typical customer business transaction at the store includes personal consultation (e.g. eye examination) and product selection followed by an in-store waiting period (average about an hour) for the selected product to be fitted according to individual requirements. During the experimental period, the customers filled out a store exit survey upon collection of their purchase. The questionnaire measures customers’ emotional states (Mehrabian and Russell’s pleasure-arousal scales) induced by the presence of music while in-store (Donovan et al., 1994), approach and avoidance behaviour (liking, loyalty, words-of-mouth), evaluation of store environment (rushed, stressful, tense), and emotional response to the wait (frustrated, irritated, dissatisfied) (Hui et al., 1997). Additional measures for manipulation check (e.g. likeability of music) and a number of demographics were also included.
In terms of demographics: 60% of the respondents are women and 40% men with the largest age group being between 25 to 35 years.

RESULTS AND DISCUSSION
A total of 226 customers participated in the exit survey across the three days of experiment. Manipulation check on the experimental treatment is deemed satisfactory and reliability of the measures based on Cronbach’s alpha is considered acceptable. The mean ratings of the two music groups and the no music control group are given in Table 1 (Appendix B).

Music and consumer behaviour (H1 and H2)
The ANOVA results show that music has significant effect on all three behavioural dependent variables—approach behaviour (F(2,223)=2.97, \( p < .10 \)), evaluation of service environment (F(2,144)=3.60, \( p < .05 \)), and emotional response to the wait (F(2,223)=292, \( p < .01 \))—thus provides support for H1 and H2. As shown in Table 1, the group with liked music reported the most positive emotional response to the wait and the strongest approach behaviour towards the service retailer but the most negative emotional evaluation of the service environment. Post-hoc tests reveal significant difference in approach behaviour between the liked and disliked music groups but not the ‘no music’ group. This suggests that not playing music could be better than playing the wrong type of music. In terms of evaluation of service environment, no music is better than playing any kind of music even if it is the right kind of music. In contrast, regardless of its valence, music ameliorates the emotional response to the wait with positive effect significantly higher when music is played than it is not.

Music, emotional responses and consumer behaviour (H3, H4 and H5)
Varimax rotated factor analysis of the 12 pleasure and arousal items produced two factors which accounted for 89.6% of the variance. The two-factor solution showed a clear demarcation between the pleasure and arousal items consistent with the Mehrabian-Russell model. One problematic arousal-related item was dropped and the final two factors display satisfactory reliability. The differences in emotional responses due to the presence/absence of music and its valence are shown in Table 1. ANOVA results indicate a significant effect of music valence on both pleasure and arousal. Participants reported greater degree of both pleasure (F(1,138)=375.2, \( p < .01 \)) and arousal (F(1,120)=103.6, \( p < .01 \)) when listening to liked music compared with disliked music; therefore, H3 is supported. The next step is to use multiple regression to investigate whether pleasure and arousal predict consumer behaviour in liked and disliked music condition. The results in Table 2 show that when liked music is played pleasure is a significant predictor of all three dependent variables whilst arousal is only significant for response to the wait, but is in the negative direction, i.e. the greater the experienced arousal, the more negative response to wait. Although this finding is inconsistent with the prediction of Mehrabian-Russell model but it replicates to some extent Donovan et al., (1994) study in which higher arousal did not predict more positive consumer behaviour (e.g. more spending) even in pleasant environment i.e. liked music condition. On the other hand, when disliked music is played, the only significant relationship found is between pleasure and response to the wait, indicating that greater pleasure leads to more positive response to wait regardless of whether the experience is induced by liked or disliked music. Based on the above H4 is confirmed but H5 is only partly supported (See Table 2 in Appendix B).

SUMMARY AND IMPLICATIONS
To summarise, this study finds support for music as an important environmental stimuli of consumer behaviour in a Chinese retail store setting. The results highlight areas where the impact of music is inconsistent with previous work, which may be attributed to cultural differences but could also be due to differences in consumers’ motivational orientation, i.e. utilitarian (task-oriented) and hedonic (recreational) orientation (Kalthcheva and Weitz, 2006). One clear implication of this study is that not playing music is better than playing the wrong type of music in service environment evaluations by consumers. Another implication is that music can be used to ameliorate the consumers’ potential negative emotional response to waiting in-stores. Also, in terms of “servicescape” design, it is clear from the results that managers can use the right types of music to influence specific types of consumer behaviour within retail store environments.

This study is certainly just a starting point to investigate the extent to which Chinese retailers can learn from the extant knowledge on the impact of in-store atmospherics. Future research needs to consider the impact of cultural difference on music influence.
REFERENCES


Figure 1 Conceptual Framework and Hypotheses
### Table 1 Mean ratings of dependent variables across different experimental groups

<table>
<thead>
<tr>
<th></th>
<th>Liked Music</th>
<th>Disliked Music</th>
<th>No Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach behaviour</td>
<td>6.42</td>
<td>6.17</td>
<td>6.39</td>
</tr>
<tr>
<td>Emotional evaluation</td>
<td>6.53</td>
<td>6.68</td>
<td>6.81</td>
</tr>
<tr>
<td>Emotional response to the wait</td>
<td>5.86</td>
<td>5.59</td>
<td>2.03</td>
</tr>
<tr>
<td>Pleasure</td>
<td>6.13</td>
<td>2.93</td>
<td>n/a</td>
</tr>
<tr>
<td>Arousal</td>
<td>4.60</td>
<td>3.23</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Notes: All variables used 7-point scales with higher ratings denote more positive behaviour/ responses/ evaluations and higher emotional states (pleasure and arousal). Negatively coded statements were recoded in the positive direction.

### Table 2 Multiple regression of pleasure-arousal as predictors of consumer behaviour

<table>
<thead>
<tr>
<th></th>
<th>Liked music condition</th>
<th>Disliked music condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approach behaviour</td>
<td>Evaluation of service environment</td>
</tr>
<tr>
<td>Pleasure</td>
<td>.61***</td>
<td>.34**</td>
</tr>
<tr>
<td>Arousal</td>
<td>-.20</td>
<td>-.17</td>
</tr>
<tr>
<td>R²</td>
<td>.28</td>
<td>.09</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.26</td>
<td>.06</td>
</tr>
<tr>
<td>F</td>
<td>F(2,63)=12.51***</td>
<td>F(2,63)=2.95*</td>
</tr>
</tbody>
</table>

Notes: *p<.10, **p<.05, ***p<.01