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The Effects of in Store Music on Shopping Behaviour in a Retail Setting

Ratul Kapoor  
*College of Vocational Studies, University of Delhi, India*

Rashmi  
*College of Vocational Studies, University of Delhi, India*

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THE EFFECTS OF IN STORE MUSIC ON SHOPPING BEHAVIOUR IN A RETAIL SETTING

Ratul Kapoor*
Rashmi**

ABSTRACT

This article extends research linking shopping behaviour to music as an environmental stimulus. Spanning across five sports apparel stores shoppers shopping in a real retail experience reported their perception of time spent inside the store, their overall hearing/aural rating on a ten point bi-polar scale and the actual time spent in the store was noted down. Also their level of music familiarity was asked on a 5 point bi-polar scale and the tempo of music in each store was analyzed. Results show that music familiarity has a positive relationship with the perception of time. The subjects reported shopping longer when exposed to familiar music but actually the time spent shopping was longer, when exposed to unfamiliar music. This result can be attributed to the notion that time appears to be longer when one can remember more about it and which is what happens when people listen to familiar music. The overall perception of the aural/hearing sense of the consumers also showed a positive relationship with music familiarity. An extensive literature review reveals interesting findings in various types of retail settings, on various consumer behaviour variables, and effects of various music dimensions.

INTRODUCTION

Philip Kotler in 1973 in his research paper “Atmospherics as a marketing tool” said “One of the most recent advances in business thinking is the recognition that people, in their purchase decision making, respond to more than simply the tangible product or service being offered. Buyers respond to the Total Product.” (Philip Kotler, 1973). And according to Kotler one of the most important part of this Total Product is the place of purchase. Ever since retailers are finding innovative and creative ways to enhance the shopping experience of its consumers. Every place has its own aura, which impacts the

* College of Vocational Studies, University of Delhi. He can be contacted on his mobile 8527064223 or on his email address ratulkapoor@gmail.com.
** Assistant Professor, College of Vocational Studies, University of Delhi. She can be contacted on her email address rashmiphd@fms.edu.
mood of the people in its vicinity. In a retail store a specific targeted ambience can be created using various sensory elements such as music, visuals, scent, temperature etc. to create specific feelings in the audience to fulfill their needs. These tools can also be used to fulfill the retailers motives such as monitoring the time customers spend in the store, increasing the expenditure or just simply creating a great experience for its customers.

Indian Retail has experienced a tremendous boost in organised retail over the past years but still overlooks the power of getting into the details of various sensory inputs and how playing with them can create a new wave and a new culture in Indian Retail. This research intends to study various developments done in retail with respect to sensory tools, specifically music and time perceptions, and hence come up with concrete solutions applicable for various kinds of retailers.

Music is an art of organisation of sound with an objective of evoking an aesthetic response in listeners. Music is composed of various elements which when varied show different impacts on the human mind. Experiment are being conducted since a long time to see exactly how music impacts shopping behaviour in a retail environment. Some elements of music which are varied in various researches are time, pitch and texture where tempo, meter, rhythm and duration define time; tonality melody and harmony define pitch and timbre and orchestration are variables of texture. (Kellaris & Kent, 1994). The effects of music have been considered in many areas of consumer research, including hedonic consumption and consumer aesthetics (Holbrook & Anand, 1990). And such impacts on consumer behaviour are very strong on every kind of retail environments be it a shopping mall, grocery stores, hair salons, restaurants and any kind of place where a customer is being served. Music elements are seen to impact various consumer variables such as pace of the consumer, product evaluations, store evaluations, perception of time, money amount spent etc. Although many experiments have been performed to observe the impacts of music on such variables, however such experiments have not been studied in the Indian context. This experiment conducts a similar experiment to see the impact of music on perceptions of time and also will see the overall impact of music on the aural/hearing sense of a consumer which has not been directly recorded before.

LITERATURE REVIEW

Kotler introduced the concept of Atmosphere as an important marketing tool and how the spatial aesthetics and Sensory cues can have a large impact on the consumer buying experience. Sensory elements such as: Visual dimensions (colour, size, shape, brightness), aural dimensions (pitch, tempo), olfactory dimensions (scent, freshness), tactical dimension (softness, smoothness, temperature) help in shaping a specific intended atmosphere. Atmospherics according to Kotler can be defined as “The effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability” (Kotler, 1973). The intend of the designer of designing a specific atmosphere to evoke certain feelings in the consumers may differ from the perceived atmosphere of the consumer which may occur due to differences in cultures, demographics etc.

The research “the effects of music in a retail setting on real and perceived shopping times” conducted by Yalch & Spangenberg (1993) focuses on the impact of music dimensions on the difference between the actual and perceived times of consumers in a retail setting. Their research mainly uses Mehrabian PAD framework. (Mehrabian, 1974) which stands for Pleasure, Arousal and Dominance. These three measures together define the overall emotional state of a person, in the following case the state of the consumer. Pleasure dimension measures how happy and how much the
consumer is enjoying the shopping experience. Arousal measures how much the environment stimulates the consumer. Whether he is moving fast or slow, level of activeness etc. Dominance is how much submissive and influenced the person feels. For example the behaviour of a sales person has a strong effect on the dominance dimension of emotion. These emotional variables are further believed to effect four parameters which directly affect the shopping results and motives of the retailer i.e. taxonomy of possible behavioural reactions to the environment (Donovan and Rossiter, 1982). The first element is Time. How much time the consumer spends in the store, whether the consumer is willing to spend time in the store, the time perception of the consumer all depend on this factor. The next factor is Exploration. It defines how much a consumer is willing to explore the store and products, how much area is covered etc. The third element Communication describes how the emotion dimensions of the consumer effects his willingness to communicate with others in the store. This is more of a concern in stores where the sales person needs to communicate with the customer to explain the details or to make a deal. The last factor Satisfaction refers to the overall experience of a consumer. Waiting in a line, easily finding what a consumer needs, transport items from store to car or it can be said every touchpoint till the completion of the experience in a retail setting effects how satisfied a consumer is.

Time is a scare resource and most consumers consider time as part of the total cost of transaction. Therefore manipulating time perceptions is very important for marketers especially in a retail setting. For example a retailer might want to reduce perceived time in a waiting line but may want to increase it in exposure to an advertisement. And such perceptions of time are influenced by what fills the environment, specifically stimulus which appeals to the five senses.

“When more stimulus information is encountered/ processed/ stored during a time interval, that interval will be perceived as longer in duration.” (Kellaris & Kent, 1992). One of the most important factor which fills the environment is music, and different types of music have its own aesthetic character and hence different effect on feelings and time perceptions of consumers. Yalch (1993) believed that retailers use a lot of atmospheric tools to modify the behaviour of the shoppers and used some interesting examples for the same. For example in restaurants faster tempo and bright lightening is used in rush hour periods when there are long waiting lines whereas in the same restaurants slower tempo music of the same type is played to make the customer sit for longer time. In retail shops where high customer and sales personnel interaction is needed soothing music is played whereas same music might not be played in grocery stores where the customers come fill the carts pay and then leave.

Researches done regarding the effects of music on shopping behaviour and creating certain atmospheres have all focused its effects on measures either reported by respondents via questionnaires or by studies done in simulated retail settings. Areni and Kim (1993) took a different approach and conducted a research on the influence of background music on shopping behaviour: classical versus top-forty music in a wine store to understand the effects of music on variables like (1) the number of shelf items examined, handled, and purchased, (2) the shelf location of the items examined, handled, and purchased, (3) the total dollar amount of the merchandise purchased, (4) the total amount of time spent shopping, and (5) the frequency with which patrons consumed merchandise on site, under two background music conditions (Areni and Kim, 1993).

To conclude the results obtained from their research it can be said that retailers should define their store atmosphere according to the fit environment i.e. according to the symbolic meaning which their product or service is conveying or what the retailer intends to convey. This is done as suggested by Kotler in the same way customers are targeted while product design. The fact that classical music made people spend more and buy more expensive wines can be attributed to two causes. First, customers
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who did not have a prior experience in a wine cellar and being exposed to classical music must have been
tempted to buy expensive wines as they thought of it as a norm or must be pressurised to buy expensive
wines. Second, the classical music may have communicated a cue that the store had high quality and
high priced wines and hence the customers making a purchase of the same kind of wines. The
parameters such as actual time spent in the store, quantity of items purchased etc. which were
unaffected by the genre of music might be effected by other factors of music such as tempo, pitch etc.
which is seen as a case in other literature.

Milliman (1986) in his research on the effect of background music on restaurant patrons used the
approach and avoidance behaviour approach by Mehrabian (1974) according to which a consumer will
either show approach behaviour i.e. be willing to roam about in the store, performing tasks,
communicating with people and making eye contact etc. whereas in avoidance behaviour consumers
avoid being in the environment, avoid making eye contact with sales people, are not willing to evaluate
products etc. He used this approach successfully to give some interesting results.

On varying music between slow tempo and fast tempo music the research in a restaurant setting gave
some interesting results on the effects of music on consumer behaviour. The average time it took for the
staff to prepare and serve the meal in case of slow tempo music was 29 minutes and in case of fast
tempo music it was 27 minutes. Difference was 2 minutes was not significant. But average time it took
for the customers to finish their meals and leave in case of slow tempo music was 56 minutes and in
case of fast tempo it was 45 minutes. This shows a significant difference in the amount of dinning time.
With respect to the time people waited before getting seated, in case of slow tempo music people
waited for an average time of 47 minutes, and on the other hand in fast tempo case 34 minutes which
shows a significant difference. There was no significant relationship between the time people stayed
and left before getting seated. Dollar amount spent on food also had no significant relationship as when
patrons were exposed to slow tempo music they spent 55.81 dollars and when exposed to fast music
spent 55.12 dollars but in case of amount spent on beverages there was a big difference as when slow
tempo music was being played the average expenditure was 30.41 dollars and when exposed to fast
music amount spent on beverages was 21.62 dollars. This was 3.04 more drinks per customer group.
On comparing the overall gross margin i.e. profit after deducting the costs, slow music showed an
average margin of 55.82 dollars whereas fast music shows an expenditure of 48.62 dollars. The
difference can be attributed to the difference in the expenditures on beverages. (Milliman, 1986)

Retail Zoning is playing distinctive sorts of music in different parts of a store to engage particular
shoppers. The exploration introduced in this paper: Using Store Music for Retail Zoning by Richard
Yalch and Eric Spangenberg takes a look at the impacts of music by thinking about the possible
consequences on buyers shopping in various divisions. It was led in an expansive attire store to
guarantee a satisfactory scope of purchasers and music.

The outcomes bolster the suggestion that the impacts of store music might be changed by departmental
and customer characteristics. In spite of the fact that the general impacts of the sort of store music being
played were insignificant, they shifted significantly by the kind of customer and department. In a
division catering essentially to more youthful male customers, playing foreground music brought
about more buys. Then again, in the department catering to more established females, ambient
melodies was connected with a larger number of buys than the foreground music. Further, in a field
setting, there are numerous variables that might impact shopping conduct and influence of any single
component is liable to be little. Likewise, there are liable to be numerous higher order interactions
among these components. It creates the impression that outlining store atmospheres might remain a
craftsmanship as opposed to a science for some more years.
RESEARCH ISSUES/OBJECTIVES

“Music is one of the most frequently used atmospheric factors to enhance the delivery of services to customers” (Yalch and Spangenberg, 1990). Since music being such an influential atmospheric tool, an extensive literature review and an experiment was conducted to understand the effects of music on shopping behaviour in a retail setting. The experiment conducted wanted to study the impact of music tempo and music familiarity on the overall aural or hearing sense of the consumer. Different environmental stimulus stimulate different senses of people. The experiment wanted to see how much consumers relate to the music in a retail environment and how manipulation of different music dimensions can impact the overall hearing sense of a consumer.

The second issue is the relation between music and time perceptions. The research intended to study the impact of music familiarity on differences between actual and perceived times and hence conclude the type of music to be played according to different retail motives like increasing shopping time, increasing product evaluations, reducing waiting time etc. Familiarity of music affects time perceptions, as more familiar music increases the cognitive load on the consumer brain and hence perception of time is increased, and on the other hand being exposed to unfamiliar music is comparatively an easier task for the brain to process and hence less time being perceived as passing. Tempo of music i.e. how fast or slow the music is being played has a major impact on consumer emotional state of mind and determines the pace of the consumer in a retail setting. For example, some restaurants use bright lights and fast – tempo music to encourage rapid turnovers during lunch-times when the demand for tables is high, but in the evening when few customers are waiting use dim lights and slow music to encourage customers to linger and consume high-margin items such as cocktails and desserts. (Yalch and Spangenberg, 1990). Observing whether tempo is being used in Indian retail set ups effectively and its effects on emotional and perceptions of time was another objective of the experiment.

The final research objective pertains to the effects of music on the emotional state of the consumer. Mehrabian and Russell’s (Mehrabian and Russell, 1974) study indicates that individuals react to their surroundings by means of three factors: pleasure, arousal and dominance. These three factors together define the emotional state of an individual at any point of time. The research critically evaluates the literature done on this subject to understand the impact of different music dimensions on these three factors and how manipulation of music dimensions can affect the emotional state of a consumer and hence his shopping behaviour.

HYPOTHESES

Music familiarity is believed to have a positive impact on the perceived time of the consumer, i.e. More familiar the music the higher the perceived time and vice versa. Such prediction is made as in more familiar conditions people have higher cognitive load i.e. are exposed to a difficult environment and hence perceive time to be higher and may actually spent less time. Hence the following hypotheses were made

H0: Shoppers perceive time longer than actual time while familiar music is played (Null hypotheses).
H1 : Shoppers perceive time longer than actual time while unfamiliar music is being played. (Alternate Hypotheses).
The research also intends to study the relationship between music tempo and music familiarity with the overall rating the consumer gives to his aural hearing sense on a sensory load chart. Any stimulus can be measured on a sensory load chart. A sensory load chart measures consumers response about a brand, a place etc. where respondents rate their experience on scale of 0-10 on the 5 senses i.e. sight, hearing, taste, smell and touch. In this study only the hearing sense was recorded to see how much consumers relate to the music in the environment and whether retailers are investing resources to enhance the experience of the consumer by effectively manipulating the music. Hence it was hypothesized:

H0: Music tempo and music familiarity have a significant impact on the aural hearing sense of the consumer in a retail environment. (Null Hypotheses).

H1: Music tempo and music familiarity have no significant impact on the aural hearing sense of the consumer in a retail environment. (Alternate Hypotheses).

**METHOD**

**Overview**

A research was conducted in Delhi – NCR region in India to study the impact of music dimensions on shopping behaviour in a retail setting. Five different sports apparel stores were chosen across the area and responses were taken and observed by the researcher. Songs being played in each store were noted down seven days of a week and their tempo was analyzed using digital music software. Other independent variable i.e. Music familiarity was self-reported by the respondents on a 5 point bi polar scale. The dependent variables were the overall rating of the aural sense of the consumers and actual and perceived time spent by the consumers in the store. Additional observations were made during the field research by the researcher. The results were analyzed using regression analysis.

**Design**

Total of 100 respondents were asked to fill questionnaires upon their exit from the stores. Out of those 94 people agreed to fill in the in the questionnaires consisting of questions about the overall hearing sense perception of the respondent on a bipolar scale of 0-10 where “0” is the extreme state of not liking the music and “10” being the extreme state of liking the music. The respondents were asked to fill in their perception of the amount of time they spent in the store. Also the familiarity of music was filled by the respondents on a 5 point bipolar scale where 1 being Unfamiliar and 5 being Familiar. The consumer were asked the age group in which they belonged to (Less than 18, 18-30, 31-50, more than 50).

**Independent variables**

The independent variables chosen for the research were music tempo and music familiarity. Tempo is the most common measure of music and can be defines as the speed of music measured in beats per minute. For example faster tempo music is perceived as more exciting whereas slower tempo songs are more relaxing. The research aims to note differences in tempo across the five stores and see their impact on the dependent variables. Also the effectiveness and extent of usage of music tempo is to be analysed. The second music variable which is predicted to affect the dependent variable is music familiarity. Music familiarity refers to how well known the genre and the style or a specific piece of music is to a person.

**Dependent variables**

The first dependent variable is the overall aural or hearing sense perception of a consumer. Such a
measure will give direct results of the effects of different levels of familiarity and different tempo of music being played. Also analysis is done by taking only the perceived time as a dependent variable.

**Procedure**

The data was collected on all seven days of the week at different times of the day from all the 5 stores to remove any bias. Special occasion days were not chosen to avoid any external influences. Time on a timer was started once a respondent entered the store. The timer was stopped upon the exit of that respondent and they were asked to fill in a questionnaire for a university research paper.

**RESULTS**

**Effects of music familiarity on overall aural rating**

Music familiarity was self-reported on a bipolar scale of 1 to 5 and overall aural hearing was also rated on a bi polar scale of 0 to 10. For each store from the 5 stores surveyed values of the overall aural rating were averaged for each familiarity level. Then a single final value of overall aural hearing rating was calculated for each familiarity level by averaging the average results of the corresponding familiarity levels of all the store. On averaging the average results obtained for each store corresponding to each familiarity level Table 1 was obtained. On testing the data in table using regression analysis we get R square as 0.973505059 with Significance F as 0.001845105 and P- value 0.0175825. We see the regression fits the data and the data obtained is reliable. The regression equation being $Y = 1.261X + 1.897$, where $Y$ is the average aural hearing sense rating and $X$ is the familiarity rating we see a positive relationship between familiarity and the hearing perception of a consumer in a store. And hence we accept the Null Hypotheses of the second hypotheses that music familiarity has a significant impact on the aural hearing sense of the consumer in a retail environment.

**Table 1:** Average overall aural hearing rating recorded for each familiarity level

<table>
<thead>
<tr>
<th>FAMILIARITY</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.766667</td>
</tr>
<tr>
<td>2</td>
<td>4.7</td>
</tr>
<tr>
<td>3</td>
<td>5.983333</td>
</tr>
<tr>
<td>4</td>
<td>7.056667</td>
</tr>
<tr>
<td>5</td>
<td>7.893333</td>
</tr>
</tbody>
</table>

**Graph 1:** Positive relationship between the familiarity rating and the overall aural rating
Effects of music familiarity on time perceptions

The effects of music familiarity on time perceptions is analyzed in two ways. First the impact of music familiarity was analyzed on the perceived time directly and second its impact on the mod value of the difference between perceived time and actual time. For each store the perceived and actual time were averaged for each familiarity level and then their mod value was calculated. (Refer to Table 2, 3,4,5,6 for Store 1, 2,3,4,5 respectively). Then in a final table the average mod values and average perceived time of each store was calculated corresponding to each familiarity level. (Refer to the Tables 7 and 8 respectively). (All Time Values are in Minutes)

Table 2: Average Perceived and Actual time and their Mod difference for Store 1

<table>
<thead>
<tr>
<th>FAMILIARITY LEVELS</th>
<th>PERCEIVED TIME</th>
<th>ACTUAL TIME</th>
<th>MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.5</td>
<td>6.25</td>
<td>0.25</td>
</tr>
<tr>
<td>2</td>
<td>8.5</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>8.25</td>
<td>5.5</td>
<td>2.75</td>
</tr>
<tr>
<td>4</td>
<td>12.5</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>5</td>
<td>11.5</td>
<td>7</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Table 3: Average Perceived and Actual time and their Mod difference for Store 2

<table>
<thead>
<tr>
<th>FAMILIARITY LEVELS</th>
<th>PERCEIVED TIME</th>
<th>ACTUAL TIME</th>
<th>MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>5.75</td>
<td>2.25</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>6.33</td>
<td>2.67</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>6.75</td>
<td>3.25</td>
</tr>
<tr>
<td>5</td>
<td>12.33</td>
<td>8</td>
<td>4.33</td>
</tr>
</tbody>
</table>

Table 4: Average Perceived and Actual time and their Mod difference for Store 3

<table>
<thead>
<tr>
<th>FAMILIARITY LEVELS</th>
<th>PERCEIVED TIME</th>
<th>ACTUAL TIME</th>
<th>MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>11.66</td>
<td>10.166</td>
<td>1.494</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>5.25</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>8.75</td>
<td>5.5</td>
<td>3.25</td>
</tr>
<tr>
<td>5</td>
<td>7.5</td>
<td>3.5</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 5: Average Perceived and Actual Times and their Mod Difference for Store 4

<table>
<thead>
<tr>
<th>FAMILIARITY LEVELS</th>
<th>PERCEIVED TIME</th>
<th>ACTUAL TIME</th>
<th>MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.5</td>
<td>4.75</td>
<td>0.75</td>
</tr>
<tr>
<td>2</td>
<td>5.25</td>
<td>3.625</td>
<td>1.625</td>
</tr>
<tr>
<td>3</td>
<td>8.25</td>
<td>5</td>
<td>3.25</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>10.6</td>
<td>5.5</td>
<td>5.1</td>
</tr>
</tbody>
</table>
On averaging the results of each store for each familiarity level we get the following results for the mod value and the average perceived times:

**Table 6: Average Perceived and Actual Times and their Mod Difference for Store 5**

<table>
<thead>
<tr>
<th>FAMILIARITY LEVELS</th>
<th>PERCEIVED TIME</th>
<th>ACTUAL TIME</th>
<th>MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.8</td>
<td>4.7</td>
<td>1.1</td>
</tr>
<tr>
<td>2</td>
<td>6.333</td>
<td>5.166</td>
<td>1.167</td>
</tr>
<tr>
<td>3</td>
<td>6.25</td>
<td>4</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>8.75</td>
<td>4.75</td>
<td>4</td>
</tr>
</tbody>
</table>

**Table 7: Final average Mod value for respective familiarity Levels**

<table>
<thead>
<tr>
<th>FAMILIARITY</th>
<th>AVERAGE MOD VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.62</td>
</tr>
<tr>
<td>2</td>
<td>1.8072</td>
</tr>
<tr>
<td>3</td>
<td>2.634</td>
</tr>
<tr>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>5</td>
<td>4.386</td>
</tr>
</tbody>
</table>

**Table 8: Final average Perceived time for respective familiarity level**

<table>
<thead>
<tr>
<th>FAMILIARITY</th>
<th>AVERAGE PERCEIVED TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.76</td>
</tr>
<tr>
<td>2</td>
<td>7.9486</td>
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<tr>
<td>3</td>
<td>7.85</td>
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<td>4</td>
<td>9.85</td>
</tr>
<tr>
<td>5</td>
<td>10.136</td>
</tr>
</tbody>
</table>

On analyzing the results of the average perceived time with music familiarity using regression analysis R square was 0.907351, Significance F value was 0.012319 and P-value was 0.001539, which shows regression line fits the data and that the data is reliable. The regression equation came out to be Y = 0.86534X + 5.9129, where X is the familiarity rating from 0 to 5 and Y is the average perceived time we see that there is a positive relationship between music familiarity and time perceived i.e. more familiar the music more time spent will be perceived whereas less familiar the music less time spent will be perceived. The graph below shows this positive relationship.
Graph 2: Positive Relationship between Average Perceived Time and Familiarity Rating

On analyzing the results between the music familiarity and the mod difference we see that there is also a positive relationship between the two but statistically the relationship was not found out to be significant with high Significance F and P values.

Graph 3: Relationship between Average mod value and Music Familiarity

Music familiarity
Effects of music tempo

The research wanted to study the varying effects of music tempo on the dependent variables just as in music familiarity. Five stores were chosen to get 5 different average tempo values, but interestingly most of the sports apparel stores had their own radio shows and on analyzing the song tracks and their tempo in beats per minute interesting results were seen.

In store 1 the beats per minute of the music being played ranged from 98 beats per minute to 128 beats per minute. In store number 2 the music varied from 120 beats minute to 160 beats per minute. In store number 3 the music mostly varied between 125 to 128 beats per minute but played music around 120 beats per minute also. In store number 4 and 5 the beats per minute varied drastically ranging from 70 beats per minute to 130 beats per minute. Also music being played showed no consistency among other factors of music i.e. genre of music and background versus foreground music. Genre of music refers to the type of music i.e. rock, Hip – Hop, Bollywood etc. and foreground music refers to music played with vocals and background music is music with just instruments. Surprisingly it was observed that these elements were varied randomly and showed no consistency.

Music variables and preference according to age group

Generally music was seen as being more familiar to the younger age group (less than 50 years) and less familiar to the older age group. Hence rating of the store was more favourable for the younger age group though the responses were mixed in nature. Also it was observed that people whose actual time spent was higher usually had some utilitarian motives and made a purchase whereas people who spent less time generally did not make a purchase and primarily had hedonic i.e. recreation motives only.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The atmosphere of a retail environment is one of the most important factor for its success. “In some cases the place, more specifically the atmosphere of the place is more influential than the product itself in the purchase decision. In some cases the atmosphere is the primary product.” (Kotler, 1973). Although the concept of atmosphere has been there throughages Philip Kotler first introduced the concept of atmospherics and from then it has become an integral part in the designing of retail environments. The atmosphere of any place is created by various sensory inputs which affect our five senses. An efficient use of sensory inputs can produce targeted and desired effects for the targeted audience. Music is one of the most frequently used atmospheric factors to enhance the delivery of services to customers. (Yalch & Spangenberg, 1990). Various dimensions of music such as tempo, tonality, pitch, volume etc. can be varied to produce different desired shopping behaviour.

The experiment conducted in this research shows that music familiarity has a positive impact on the perception of time i.e. more familiar the music the respondents perceived time to be longer than it actually was and vice versa. Ornstein (1969) said that time appears to be longer when one can remember more about it and which is what happens when people listen to familiar music. This means that when familiar music is being played the cognitive load on the consumers brain is higher than when unfamiliar music is being played. More information being processed in the mind of the consumer makes perception of time longer and actual time spent may be decreased. This result has interesting implications for various retail motives. For example in waiting areas (ticket booking counters, waiting lines etc.) a retailer might want to play unfamiliar music to reduce the perception of time. Restaurant owners can play familiar music in rush hours so the perceived time is higher but actual time spent is low and unfamiliar music in non – rush hours to reduce the perception of time and hence more time spent.
The overall rating of the aural or hearing sense is a part of the sensory load chart which records the rating of a respondent on all five senses of humans. Such a rating directly tells how much a person associates himself with a particular sense with respect to the environment. In this experiment we saw that more familiar the music more was the rating given, which shows consumers associate more to an atmosphere when familiar music is played. This can be explained as familiar conditions produce feeling of personal belongingness, and especially music being familiar people associate with it even more. This result shows that when the motive is mainly to evoke pleasant feelings and make people more associated to the environment familiar music should be played. Although in the current experiment we saw that music tempo measured in beats per minute had a very wide range in the sports apparel stores, the effects of tempo can be elaborated by the previous literature studied. Tempo has a strong impact on the pace of a consumer in a retail setting. For example in many prior researches people walked slower and spent more time in grocery stores when slower music was played and vice versa when faster tempo music was played. Music tempo variations are highly used in restaurant settings. In a research by Ronald E. Milliman he found interesting implications. Playing slower tempo music made amount spent on alcoholic beverage and desserts much higher when fast tempo music was played. This can be attributed as slower tempo music gives a feeling of relaxation. Also faster tempo music led people to finish their meal and leave the restaurant at a much less time than when slower music was played which has a major implication for rush hours. Considering the data obtained from the sports apparel stores it is suggested that music in radio shows instead of being randomly varied, should be varied on different times and days in a year after studying the time of audience coming at different times of the store. Considering impact of music on emotional states of a consumer, Mehrabian’s PAD framework which is pleasure, arousal and dominance is used in various researchers to assess the impact of different music dimensions on the emotions of consumers. Emotional states are affected by environmental stimulus which there by effect whether a consumer will show approach behaviour or avoidance behaviour towards a retail setting. Many researchers show that faster tempo leads to more arousal and pleasure level, impact of tonality of music also shows music in major keys have a positive impact on pleasure and arousal. For detail description of effects of music on emotional states of a consumer in a retail setting refer to the literature in the research.

To conclude it can be said that designing an atmosphere is an art. Every retailer should assess what atmosphere is the best to evoke certain feelings in their targeted audience and should carefully design various sensory inputs to project the intended atmosphere. Music is a very important tool to create intended atmospheres and work best when is congruent to other atmospheric stimulus. Future researches should focus more on assessing types of atmospheres for different niche stores like done in this research where sports apparel stores were assessed. Also more focus should be put on the congruent effects of music with other sensory inputs like visuals, lightening etc. as consumers view different elements in the atmosphere holistically.

LIMITATIONS

The experiment conducted although shows results in line with the previous literature has some limitations which might have affected the results. First, the independent variables were not varied by the researcher himself, familiarity rating were given by the respondent himself. Also the tempo values were not self-varied but the music already being played was analysed.

Secondly, due to not being able to get permission of interviewing the respondents inside the store, the results might be a little biased as exit interviews are not preferred for atmospheric variable studies. After an extended time period or being unexposed to the stimulus a subject might again come back to
its familiar state. Therefore it is advised not to ask post hopping exit questions but rather try to study shopper behaviour while they are still inside the retail setting and being exposed to the stimulus being studied.

Thirdly, results from a sports apparel store may not be directly applicable to different types of retail settings as every retail environment has its own audience and its own intended atmosphere. This limitation also gives a scope for future research in this field i.e. to study every type of retail setting differently according to the target.

REFERENCES


