

THE OUTSIDE ENVIRONMENT TEMPERATURE AND ITS EFFECT ON EMOTIONAL RESPONSES TO THE COLOUR AND MUSIC

W. T. M. De Silva

Department of Marketing, University of Ruhuna, Matara, Sri Lanka

Abstract: The research endeavours to investigate the nature and the extent of the emotional responses elicited to same colour, and music under two different outside environment temperatures called hot and mild. To analyse the emotional responses elicited to colour and music under hot and mild outside environment temperatures, data were collected from two clusters of sample where each consisted of 50 respondents. One cluster of sample represented customers of a supermarket where its outside environment temperature is hot and other cluster of the sample consisted of customers of a supermarket where its outside environment temperature is mild. The study found that when outside environment temperature changes, customers exhibit different emotional responses to same colour, and music. It was found that a warm colour, red produces positive emotional responses under mild outside environment temperature while in contrast, the same colour produces negative emotional responses under hot outside environment temperature. Moreover, it was recognized that fast-tempo music is capable of evoking positive emotional responses under mild outside environment temperature whilst evoking negative emotional responses under hot outside environment temperature. Ultimately, the results proved that the extent and the nature of the emotional responses elicited to same colour, and music are different between hot outside environment temperature and mild outside environment temperature. The Research provides interesting insights into the retailers by emphasizing the importance of development of colour, and music in line with the outside environment temperature as the outside environment temperature is beyond retailers' control.

Keywords: Colour, Music, Emotional Responses, Outside Environment Temperature.

I. INTRODUCTION

In an era of increasing competition, dollars spent on designing, building, and refurbishing retail stores has been tremendously increased (Baker, Grewal, & Levy, 1992) although the impact which a design or design change can have on customers is not fully gauged or understood (Bitner, 1992). Despite huge cost involved, yet, retailers continually invest on planning, building, and changing the organisation's physical surrounding without really knowing and/or gauging the impact that a specific change has (Bitner, 1992). In the services businesses such as hotels, restaurants, professional offices, banks, retail stores, and hospitals it has been found that the physical environment influences behaviours and to create an image (Baker, 1986; Bitner, 1992; Booms and Bitner, 1982; Kotler, 1973; Shostack, 1977; Zeithaml, Parasuraman, & Berry, 1985). As aforementioned literature stream revealed consumers were influenced by physical stimuli, and then to create an influential atmosphere has become an important marketing strategy for services organisations. According to Bitner (1992), atmospheric planning can determine the success or the failure of a business. In some cases, service organisation's atmosphere acts as a powerful customer action influencer than the product itself does (Milliman, 1986). Accordingly, with the increasing competition the store itself offers an opportunity for retailers to differentiate them among competitors when it is difficult them to differentiate based on the merchandise, price,

promotion, and location (Baker et al., 1992). Nevertheless, yet, pricing, advertising, added features, and special promotions are given much more attention than the physical environment in order to attract and/or satisfy the customers (Bitner, 1992).

Numerous studies were found that dealt with the physical environment. Among them, physical environment evokes varying levels of emotions among customers (Baker et al., 1992; Bitner, 1992; Darden & Babin, 1994; Baker, Dhruw, Parasurman, & Voss, 2002), and how these emotions impact store shoppers' approach/avoidance behaviours (Donovan & Rossiter, 1982), willingness to buy (Baker et al., 1992), price perceptions (Baker & Grewal, 1994), perceived value (Babin, Darden, & Griffin, 1992) are noteworthy. According to Mehrabian & Russell affect model (1974), environmental stimuli affect the emotional states of pleasure, arousal, and dominance, which, in turn affect approach or avoidance behaviours. Accordingly, it is evident that behaviours are mediated by emotions.

Baker (1986) categorised physical environment/physical stimuli into three categories, namely, ambient, social, and design factors. Baker (1986) and Bitner (1992) categorised colour, music, lighting, scent, noise, and temperature as ambient factors. Baker (1986) stresses "ambient factors may or may not be consciously perceived, but that affect human senses" (p. 79). Music is an ambient factor which is capable of evoking emotional responses (Bruner, 1990; Milliman, 1982, 1986; Yalch & Spangerberg, 1990; Hui, Dube, & Chebat, 1997). Moreover, colour is capable of evoking emotional responses and attracting shoppers (Belizzi, Crowley, & Hasty, 1983; Crowley, 1993). Although studies have been conducted to analyse the emotional responses elicited to colour and music in Europe and United States, there is no adequate literature on this topic in Sri Lankan context. Moreover, almost no research has been conducted to analyse the emotional responses elicited to same colour and music under different particular settings and/or situations.

Keells Super is one of the leading supermarket chains in Sri Lanka which is being carried out by the Jaykay Marketing Services (pvt) Ltd. Keells Super Mount Lavinia outlet is placed in Colombo where its outside environment temperature is hot while Keells Super Matara outlet is placed in Matara in which the outside environment temperature is mild when compared to Colombo. Colombo in Sri Lanka is a region with a typically hot climate (Emmanuel, Rosenlund, & Johansson, 2007) and Matara located in the Southern Province of Sri Lanka in which the climate is mild when compared to Colombo (Seo, Mendelsohn, & Munasinghe, 2005). In the present study, the term "outside environment temperature" is being used, if it is merely mentioned as "temperature", as it leads reader to misinterpret and misunderstand what the researcher exactly meant by the temperature. It is important to note that temperature in the present study is not the ambient temperature.

The researcher has the experience of working in the aforementioned outlet located in the hot area where there were massive customer complains in terms of hotness although the air conditioners were turned on, which finally resulted in negative customer emotional responses. On the other hand, discussion conducted with the area manager (Mr. Nirmal Nonis) revealed that relatively fewer customers complain in terms of hotness recorded in the outlet located in the mild area. In the outlet located in the hot area, most of the time customers were making complains verbally. They seldom write them on the customers' comment book. Therefore, they were not entered into the customer complain database. If the complain seems severe it is entered into the database, if only it carries a written evidence. Most of the time complains were made related to hotness, but they were not entered into the system since they were just verbal complains. Thus, there is no evidence to prove that complains. As mentioned above, customers were complaining as it was too hot although the air conditioners were turned on. Since all the outlets within the chain are characterized by same/identical ambient factors, it is noteworthy to gauge whether these emotional responses are affected and can be manipulated by the colour, and music.

Grayston's (1974, p. 38) premise reveals that "the music must fit the situation in which it is to be used; the wrong music can produce effects that totally neglect the objective of the exercise". Hence, rather than attempt to draw conclusions about the effects of music in general, it is appropriate to analyse the emotional responses elicited to same music under different situations (under different outside environment temperatures in this study) in order to understand the nature of the emotional responses is vary between hot and mild outside environment temperatures. Moreover, compatibility of the colour used positively effects perceptions of order, preference, and emotions (Nasar 1987). According to Nazar (1987), compatibility refers to how well a place blends in with its surrounding and others.

Due to the nature of the colour and music are similar in both of the outlets, the research endeavours to find out whether the customers exhibit different emotional responses to same colour and music under hot and mild outside environment temperatures.

II. LITERATURE REVIEW

In practice, retailers utilize ambient factors, specifically colour and music as they can be easily controlled by the firm to enhance the customer actions (Bitner, 1992; Milliman, 1986, Baker et al., 1992). Moreover, extant studies on emotions evoked in a retail context have found that emotions were affected by colour and music (e.g., Bellizzi & Hite, 1992; Milliman, 1982, 1986). Hence, it is expected to discuss on colour, music, and emotional responses under the literature review.

2.1 Colour

Colour is a strong visual component in a servicescape (Vida, 2008) and use of colour is particularly effective in retail stores and service organisations as it directly affects consumers' emotional responses (Pham, Cohen, Pracejus, & Hughes, 2001; Swinyard, 1993; Vida, 2008). Extant studies have been conducted on colour and its effects found, colour appears to influence simulated purchases (Bellizzi & Hite, 1992), purchasing rates (Bellizzi & Hite, 1992), time spent in a store (Bellizzi & Hite, 1992), pleasure (Bellizzi & Hite, 1992; Crowley, 1993), arousal (Crowley, 1993), store and merchandise image (Bellizzi et al., 1983; Crowley, 1993), and the ability to attract a consumer towards a retail store (Bellizzi et al., 1983). Literature in the area of colour and its effect on emotional responses are diverse and eclectic. Among them, Eroglu, Machleit, & Davis (2003) found that colour had a positive impact on pleasure, but not on arousal while Sherman, Elaine, & Smith (1997) revealed that colour had a positive impact on arousal than pleasure. Moreover, Bellizzi & Hite (1992) found that colour influences people's emotional pleasure more strongly than arousal.

Some researchers have assumed (e.g., Jacobs & Suess, 1975; Bjerstedt, 1960; Sallis & Buckalew, 1984) and used (Armour, 1973) colour as a nominal variable with no natural ordering while some researchers have identified colour as a ratio scale (Wilson, 1966; Crowley, 1993). As far as the wavelengths of visible light associated with each colour is concerned, colours are ordered from long to short wavelengths as follows: red, orange, yellow, green, blue, violet (Crowley, 1993). Accordingly, Red, orange, and yellow are considered as warm colours while green, blue, and violet are considered as cool colours (Crowley, 1993).

As noted by Bellizzi et al. (1983), different colours are capable of stimulating varying personal moods and emotions. Some colours are more activating (stimulating brain wave activity, skin conductance, etc.) than others (Crowley, 1993). Red is more activating than other colours (Crowley, 1993) and it is more arousing than green (Wilson, 1966). Further, as noted by Wilson (1966), colours with more extreme wavelengths are the most activating. Moreover, Clynes & Kohn (1968) found that brain function was more affected by red than by other colours. Cool colours are more preferred (Silver & McCulley, 1988) and capable of evoking more pleasure (Mehrabian & Russell, 1974) than warm colours. Similarly, Bellizzi et al. (1983) found that cool colour store environments were viewed/ perceived as more attractive and more pleasant than warm colour store environments by the subjects once they have been asked about their colour preference. In the same study, (Bellizzi et al., 1983) found that people were drawn to be warm colours although they felt them as unpleasant. Moreover, Bellizzi et al. (1983) found warm colours (red and yellow) are capable of attracting people to a store while blue and green encourage less avoidance. According to aforementioned literature stream, red, consistently emerges as the most arousing colour. On the other hand, red is found to be that the least preferred colour. However, Contrary to the aforementioned findings, Wu, Cheng, & Yen (2008) showed that warm red colour (against cool blue colour) positively effects emotions of pleasure and arousal. Moreover, a study conducted by Boyatzis & Varghese (1994) found that children elicit positive emotions to light colours while eliciting negative emotions to dark colours. Similarly Hamid & Newport (1989) found that children exhibit positive emotions when they are in a pink room than in a blue room.

2.2 Music

Music is one of the key ambient factors of the servicescape (Bitner, 1992) and which acts as a powerful mood influencer (Bruner, 1990; Yalch & Spangenberg, 1990) and affecting consumers' emotional evaluation of the service environment (Baker et al., 1992). Hui et al. 1997, (p. 90) note that "playing music in the (service) environment is like adding a favourable feature to a product, and the outcome is a more positive evaluation of the environment." Among the ambient factors, music is the most commonly studied ambient factor (Smith & Curnow, 1966; Milliman, 1982, 1986; Yalch & Spangenberg, 1990; Baker et al., 1992; Areni & Kim, 1993; Dube', Chebat, & Morin, 1995; Hui et al., 1997).

Time-related expressions, pitch-related expressions, and texture-related expressions of music effect on consumers' cognition, affect, and behaviour (Bruner, 1990). Affect is referred to as emotions in language (Russell, 1979). Playing music is capable of effect on consumers' emotional evaluation of the environment and music valence may influence person's mood state and consumers' emotional responses to the service environment (Baker et al., 1992). Accordingly, positively valenced music will evoke more positive emotional responses than negatively valenced music (Hui et al., 1997). Alternatively, positively valenced music will distract consumers' attention from the passage of time which will lead to shorter perceived wait duration, which, in turn will lead to more positive service evaluation/ emotional responses (Hui et al., 1997). When music is played in a service organisation, consumers feel the length of the wait to be shorter than with the no music which ultimately leads to minimize the negative effects of waiting (Zakay, 1989).

In a music study conducted by Yalch & Spangenberg (1990), it has been found that music affects on arousal than pleasure. Similarly, Sherman et al. (1997) revealed that music affects arousal than pleasure. According to Vanderark & Ely (1993), high tempo music led to an increased arousal among consumers (as cited in Mattila & wirtz, 2001). Moreover, Wu et al., (2008) found that fast tempo music effects both of the pleasure and arousal. Furthermore, Dube et al. (1995) revealed music affects both of the pleasure and arousal. Hui et al. (1997) found that in-store music resulted in more positive emotions which in turn resulted in more positive approach behaviour. A study conducted among managers of 52 retail stores found that music resulted in more purchasing (76 %) and that had a positive effect on the customers' mood (86%), (Milliman, 1986). In light of the findings aforementioned, effect of music on emotions is more precious.

When "loud" music is played, time in a store becomes shorter (Smith & Curnow, 1966) and under the unfamiliar music played, people perceived they had spent more time than actually they were (Yalch & Spangenberg, 1990). Herrington (1996) found that music preference was significantly related to the time spent in a store while tempo and/or volume were not. In contrast, Caldwell & Hibbert (2002) showed that both of the tempo and music preference were significantly related to the time spent in a store. As noted by Milliman (1986), patrons stayed longer with the slow-tempo music than with the fast-tempo music and it led to create a pleasing environment. A survey conducted in a supermarket in New York revealed that people preferred to shop when the music was played than with no music (Milliman, 1986).

2.3 Emotional Responses

Various approaches have been developed to identify the emotions that a customer exhibits in a retail environment. One approach is discrete emotions perspective which suggests emotions are "set of discrete and phenomenological distinct affective states" (Maclnnis, Park, & Yoo, 1998, p. 254). In line with this approach, Dawson, Bloch, & Ridgway (1990) measured seven types of positive emotions which a customer elicits when he/she is exposed to a retail environment and which the emotions are induced by the physical environment. They were, relaxed, contented, satisfied, happy, surprised, excited and rewarded. Alternatively, through ethnographic interviews Maclnnis et al. (1998) identified both of the positive emotions such as pleased, attractive, excited, contented, pride, and satisfied and the negative emotions such as ignored, anxious, nullified, displeased and angry which a customer can elicit in a retail environment.

Another approach, namely, dimensional perspective suggests that various emotions can be reduced into a set of dimensions. Accordingly, a two dimensional model which consists of pleasure Vs displeasure, arousal Vs sleepiness was developed and it suggested that various emotions can be categorised under these two dimensions (Maclnnis et al., 1998). Similar to that, Mehrabian and Russell (1974) identified three dimensions of emotional states called pleasure, arousal, and dominance (PAD scale). Mehrabian & Russell affect model (1974) is most commonly used framework to analyse the relationship between the physical environment and consumer responses in a retail setting (Vida, 2008) which suggests environment stimuli affect emotional states of pleasure (unhappy/ happy, annoyed/ pleased, unsatisfied/ satisfied, melancholic/ contented), arousal (relaxed/stimulated, Calm/ Excited), and dominance (Mehrabian & Russell, 1974), which in turn affect approach or avoidance behaviours (Baker et al., 1992). Pleasure refers to "the extent to which a person feels good in the environment" and arousal refers to "the extent to which a person feels excited or stimulated" (Baker et al., 1992, p. 449). Dominance refers to "a feeling state that is based on the extent to which he/she has control over his/her act or not in variety of ways in a servicescape" (Mehrabian & Russell, 1974, p. 55). Nevertheless, Russell (1979) and Eroglu, Machleit, & Davis (2001) suggest that pleasure and arousal adequately capture the range of appropriate emotional responses. Hence, dominance dimension has been ignored in the subsequent studies (e.g., Bitner, 1992; Baker et al, 1992). In the present study, emotional responses are operationalised as positive and negative emotions.

III. METHODS

To analyse the emotional responses elicited to same colour and music under hot and mild outside environment temperatures, data were collected from two clusters of sample where each consisted of 50 respondents. One cluster of sample represented customers of a supermarket where its outside environment temperature is hot and other cluster of the sample consisted of customers of a supermarket where its outside environment temperature is mild. Moreover, respondents of the two clusters of sample were similar in nature, as far as their life style was concerned. Initially, about 110 questionnaires were distributed among the respondents and 100 responses were selected as the rest of the questionnaires were uncompleted. The survey strategy was used in the study and sample was drawn randomly from the population. Keells Super Mount Lavinia and Matara were considered as research sites in the present study and data were collected in days when no any other exogenous factor (e.g., rain, overcast weather) influence, in order to ensure that the outside environment temperature was actually what it was used to be.

Some researchers have assumed (e.g., Jacobs & Suess, 1975; Bjerstedt, 1960; Sallis & Buckalew, 1984) and used (Armour, 1973) colour as a nominal variable. The present study identifies colour as a nominal variable and operationalise as red due to Keells Super deploys red as their ambient colour. Moreover, music was operationalised as fast-tempo music as Keells Super deploys fast-tempo music.

Mehrabian & Russell affect model (1974) is most commonly used framework (e.g., Donovan & Rossiter, 1982; Bitner, 1992; Eroglu et al., 2001, 2003) to analyse the relationship between the physical environment and consumer responses in a retail setting (Vida, 2008). As noted by Russell (1979) and Eroglu et al. (2001, p. 54) pleasure and arousal adequately capture the range of appropriate emotional responses which a customer exhibits in a retail setting. Accordingly, twelve types of emotional responses identified under pleasure and arousal dimensions by Mehrabian & Russell (1974) were used as indicators of emotional responses in the study and emotional responses were operationalised as positive emotions and negative emotions as the study is expected to analyse the nature and the extent of the emotional responses elicited to same colour, and music under two different outside environment temperatures called hot and mild. Pleased, satisfied, contented, and excited were used as indicators of positive emotions as MacInnis et al. (1998) revealed them as positive emotions which a customer exhibits in a retail setting. Moreover, happy and relaxed identified as indicators of positive emotions as well due to Dawson et al. (1990) identified them as positive emotions. On the other hand, unhappy, annoyed, unsatisfied, melancholic, stimulated, and calm were identified as indicators of negative emotions as they were corresponding emotional responses to happy, pleased, satisfied, contented, relaxed and excited in the Mehrabian & Russell affect model (1974).

In terms of colour and music, separate 12 items semantic differential scales were developed by following the Mehrabian & Russell affect model (1974). Subsequently, the grand mean for the each of the colour, and music scale was calculated and if the mean value is 3 or more than 3, it is said to be that the particular colour, and music lead to evoke positive emotional responses while less than 3 denotes for particular colour, and music lead to evoke negative emotional responses (3 was taken as the decision criteria).

3.1 Hypotheses

As noted by Pham et al. (2001), use of colour is particularly effective in retail stores and service organisations as it directly affects consumers' emotional responses. Studies have been conducted on colour and its effects found, colour appears to influence on pleasure (Bellizzi & Hite, 1992; Crowley, 1993; Eroglu et al., 2003), and arousal (Crowley, 1993; Sherman et al., 1997). Moreover, Wu et al. (2008) showed that warm red colour (against cool blue colour) positively effects emotions of both of the pleasure and arousal. Furthermore, Boyatzis & Varghese (1994) found that children elicit positive emotions to light colours while eliciting negative emotions to dark colours. According to Nasar (1987), preference and/or emotions are associated with compatibility and it refers to how well a place blends in with its surroundings. Hence, based on the compatibility (with the outside environment temperature in the present study), emotional responses elicited to same colour can be vary/different under two situations (hot and mild outside environment temperatures in the present study). In other words, same colour is capable of evoking positive emotional responses under hot area while evoking negative emotional responses under mild area or vice versa.

H 1: Based on the compatibility with the outside environment temperature, same colour can evoke varying emotional responses under hot outside environment temperature and mild outside environment temperature.

As noted by Baker et al. (1992), playing music is capable of affecting consumers' emotional evaluation of the environment and positively valenced music will evoke more positive emotional responses than negatively valenced music (Hui et al., 1997). Moreover, Dube et al. (1995) revealed that music affects both of the pleasure and arousal. Hui et al. (1997) found that the in-store music resulted in more positive emotions. Moreover, Wu et al. (2008) found that fast tempo music effects both of the pleasure and arousal. As noted by Milliman (1986), slow-tempo music led to create a more pleasing environment than the fast-tempo music. Although music affects emotional responses, Grayston's (1974, p. 38) premise reveals that "the music must fit the situation in which it is to be used". By following the aforementioned premise, the study Hypothesizes as,

H 2: Based on the fit with the outside environment temperature, same music can evoke varying emotional responses under hot outside environment temperature and mild outside environment temperature.

IV. RESULTS AND FINDINGS

The internal consistency of the study constructs were measured based on the Cronbach's Alpha. As can be seen in Table 1, Cronbach's Alpha for each measure exceeds 0.85 and it reflects a higher level of internal consistency. The overall Cronbach's Alpha also was around 0.85.

Table 1: The Internal Consistency of Study Constructs Based on the Cronbach's Alpha

Measure	Cronbach's Alpha
Colour - Emotional Responses	0.915
Music - Emotional Responses	0.874

4.1 Hypotheses 1

The test results given in Table 2 indicate the mean ranks for emotional responses elicited to same colour under hot outside environment temperature and mild outside environment temperature. Accordingly, it was found that same colour (red) evokes positive emotional responses (mean = 3.11) under mild outside environment temperature while in contrast, negative emotional responses are evoked (mean = 2.74) under hot outside environment temperature. Moreover, according to the t test statistics, it was evident that there was a significant difference between these mean ranks ($p < 0.05$), assuming equal variances in two populations.

In the final analysis, null hypotheses can be rejected; that is, based upon these findings, there is sufficient evidence to conclude that the nature, and the extent of the emotional responses elicited to same colour are significantly different between hot outside environment temperature and mild outside environment temperature.

Table 2: Summary of Independent Samples t Test Results for Emotional Responses Elicited to Colour

Temperature	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Hot	50	2.74	0.59114	-3.033	0.003
Mild	50	3.11	0.60680		

4.2 Hypotheses 2

As shown in Table 3, it was found that same music (fast-tempo) is capable of evoking positive emotional responses (mean = 3.01) under mild outside environment temperature whereas evoking negative emotional responses (mean = 2.70) under hot outside environment temperature. Furthermore, according to the t test statistics it was proven that there was a significant difference between these mean ranks ($p < 0.05$), assuming equal variances in two populations. Hence, null hypothesis can be rejected and conclude that the emotional responses elicited to same music are significantly different between hot outside environment temperature and mild outside environment temperature.

Table 3: Summary of Independent Samples t Test Results for Emotional Responses Elicited to Music

Temperature	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Hot	50	2.70	0.56513	-2.923	0.004
Mild	50	3.01	0.51710		

V. CONCLUSIONS

Having studied the emotional responses elicited to same colour, and music under two different outside environment temperatures called hot and mild, the results provide interesting insights to figure out the nature and the extent of the emotional responses elicited. The results revealed that same colour (red) is capable of evoking positive emotional responses under mild outside environment temperature whilst evoking negative emotional responses under hot outside environment temperature. Moreover, it was found that the emotional responses elicited to same colour were significantly different between hot and mild outside environment temperatures. As noted by Bellizzi et al. 1983, people are drawn to be warm colours although they feel them as unpleasant. Moreover, Boyatzis & Varghese (1994) found that children elicit positive emotions to light colours while eliciting negative emotions to dark colours. Nevertheless, based on the results, the researcher indicates that emotional responses elicited to red can be either positive or negative depending on the situation which it is to be used or compatibility of the colour with the outside environment temperature. As the results proved that red evokes negative emotional responses under hot outside environment temperature, and blue (cool colour) suggests coldness (Vida, 2008), the researcher suggests that cool colours are more eligible to be used in order to evoke positive emotional responses under the hot outside environment temperature. Since the red is the most heat-producing colour (Wilson, 1966), it can cause customers to perspire than other colours do. Hence, the researcher indicates the appropriate blend of colours to be used in a retail environment under different outside environment temperatures.

Furthermore, it was proven that same music (fast-tempo) evokes negative emotional responses under hot outside environment temperature whereas positive emotional responses are evoked under mild outside environment temperature and the difference is significant. Slow -tempo music creates more relaxing environment and greater approach behaviour (Milliman, 1986) and which is induced by the positive emotions (Hui et al., 1997). According to the Grayston's (1974, p. 38) premise "the music must fit the situation in which it is to be used, the wrong music can produce effects that totally neglect the objective of the exercise". Accordingly, the researcher indicates the nature of the emotional responses (positive or negative) depends on the fit with the situation or particular setting (outside environment temperature in the present study) in which it is to be used. As customers walk fast when the fast-tempo music is played (Milliman, 1986), it can cause customers to perspire and will lead them to evoke negative emotions. Hence, the researcher suggests the importance of utilization of the music which fits with the situation. In order to evoke positive emotional responses under hot outside environment temperature, slow-tempo music is more adequate to be used per se.

As negative affect leads consumers to leave (Donovan & Rossiter, 1982), retailers should endeavour to design physical environment, specifically, ambient factors in a way which customers evoke positive emotions. Moreover, since outside environment temperature is beyond the retailers' control and ambient factors, specially music can be controlled by the firm to enhance the customer actions (Bitner, 1992; Milliman, 1986) and further, emotional responses can be manipulated by colour and music the paper emphasizes on the importance of the development of colour, and music in line with the outside environment temperature to evoke positive emotional responses.

ACKNOWLEDGEMENT

The Researcher would like to extend special gratitude to Mr. C V Rathnayake for providing valuable comments during this research work.

REFERENCES

- [1] Areni, C. S., & Kim, D. (1993). The Influence of Background Music in Shopping Behavior: Classical Versus Top 40 Music in a Wine Store. *Advances in Consumer Research*, 20, 336–340.
- [2] Armore, S. J. (1973). *Elementary Statistics and Decision Making*. Columbus, OH: Merrill.

- [3] Babin, B. J., Darden, W. R., & Griffin M. (1992). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research*, 20, 644–656.
- [4] Baker, J. (1986). The Role of the Environment in Marketing Services: The Consumer Perspective. *American Marketing Association*, 11, 79–84.
- [5] Baker, J., & Grewal, D. (1994). Do Retail Store Environmental Factors Affect Consumers' Price Acceptability? An Empirical Examination. *International Journal of Research in Marketing*, 11, 107-115.
- [6] Baker, J., Grewal, D., & Levy, M. (1992). An Experimental Approach to Making Retail Store Environment Decisions. *Journal of Retailing*, 68(4), 445-460.
- [7] Baker, J., Parasurman, A., Dhruv, G., & Voss, G. (2002) The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions, *Journal of Marketing*, 66(22), 120-141.
- [8] Belizzi, J., Crowley, A., & Hasty, R. (1983). The Effects of Color in Store Design. *Journal of Retailing*, 59, 21-45.
- [9] Bellizzi, J. A., & Hite, R. E. (1992). Environment Color, Consumer Feelings, and Purchase Likelihood. *Journal of Psychology and Marketing*, 9, 347–363.
- [10] Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing Research*, 56, 57-71.
- [11] Bjerstedt, A. (1960). Warm-Cool Color Preferences as Potential Personality Indicators: Preliminary Note. *Perceptual and Motor Skills*, 10(2), 31-34.
- [12] Booms, B. H., & Bitner M. J., (1982). Marketing Services by Managing the Environment. *Cornell Hotel and Restaurant Administration Quarterly*, 23(5), 35-9.
- [13] Boyatzis, C. J., & Varghese, R., (1994). Children's Emotional Associations with Colors. *Journal of Genetic Psychology*, 155, 77–85.
- [14] Brunner, G. C., (1990). Music, Mood, and Marketing. *Journal of Marketing*, 54, 94-104.
- [15] Clynes, M., & Kohn, M. (1968). Recognition of Visual Stimuli from the Electric Response of the Brain. In *Computers and Electronic Devices in Psychiatry*, N. S. Kline and E. Laska (eds.). New York: Grune & Stratton.
- [16] Crowley, A. E. (1993). The Two Dimensional Impact of Color on Shopping. *Marketing Letters*, 4(1), 59–69.
- [17] Darden, W. R., & Barbin, B. J. (1994). Exploring the Concept of Affective Quality: Expanding the Concept of Retail Personality. *Journal of Business Research*, 29(2), 101– 110.
- [18] Dawson, S., Bloch, P. H., & Ridgway, N. M. (1990), Shopping Motives, Emotional states, and Retail Outcomes. *Journal of Retailing*, 60, 408–427.
- [19] Donovan, R. J., & Rossiter, J. R. (1982). Store Atmosphere: An Environmental Psychology Approach. *Journal of Retailing*, 58(1), 34-57.
- [20] Dube, L., Chebat, J. C., & Morin, S., (1995). The Effects of Background Music on Consumers' Desire to Affiliate in Buyer–Seller Interactions. *Psychology and Marketing*, 12, 305–319.
- [21] Emmanuel, R., Rosenlund, H., & Johansson, E. (2007). Urban Shading – A Design Option for the Tropics? A Study in Colombo, Sri Lanka. *International Journal of Climatology*, 27, 1995-2004.
- [22] Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric Qualities of Online Retailing: A Conceptual Model and Implications. *Journal of Business Research*, 54, 177–184.
- [23] Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2003). Empirical Testing of a Model of Online Store Atmospherics and Shopper Responses. *Psychology & Marketing*, 20(2), 139–150.
- [24] Grayston, D. (1974). Music While You Work. *Industrial Management*, 4(2), 38-39.
- [25] Hamid, P. N., & Newport, A. G. (1989). Effect of Color on Physical Strength and Mood in Children. *Perceptual Motor Skills*, 69, 179–185.
- [26] Hui, M. K., Dube, L., & Chebat, J. C. (1997). The Impact of Music on Consumers' Reactions to Waiting for Services. *Journal of Retailing*, 73(1), 87-104.
- [27] Jacobs, K. W., & James F. S. (1975). Effects of Four Psychological Primary Colors on Anxiety State. *Perceptual and Motor Skills*, 41, 207-210.

- [28] Kotler, P. (1973). Atmospherics as a Marketing Tool. *Journal of Retailing*, 49, 48–64.
- [29] MacInnis, D. J., Park, J., & Yoo, C. (1998). Effects of Store Characteristics and In-Store Emotional Experiences on Store Attitude. *Journal of Business Research*, 42, 253–263.
- [30] Mattila, A. S., & Wirtz, J. (2001). Congruency of Scent and Music as a Driver of In-store Evaluations and Behavior. *Journal of Retailing*, 77(2), 273-289.
- [31] Mehrabian, A., & Russell, J. A. (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.
- [32] Milliman, R. E. (1986). The influence of background music on the behavior of restaurant patrons. *Journal of Consumer Research*, 13, 286–289.
- [33] Milliman, R. E., (1982). Using background music to affect the behavior of supermarket shoppers. *Journal of Marketing*, 46(2), 86–91.
- [34] Nasar, J. L., (1987). Effect of Sign Complexity and Coherence on the Perceived Quality of Retail Scenes. *Journal of the American Planning Association*, 53(4), 499-509.
- [35] Pham, M. T., Cohen, J. B., Pracejus, J. W., & Hughes, G. D. (2001). Affect Monitoring and the Primacy of Feelings in Judgment. *Journal of Consumer Research*, 28, 167–188.
- [36] Russell, J. A. (1979). Affective Space is Bipolar. *Journal of Personality and Social Psychology*, 37, 345–356.
- [37] Sallis, R. E., & Buckalew, L. W. (1984). Relation of Capsule Color and Perceived Potency. *Perceptual and Motor Skills*, 58, 897-898.
- [38] Seo, S. N., Mendelsohn, R., & Munasinghe, M. (2005). Climate Change and Agriculture in Sri Lanka: A Ricardian Valuation. *Environment and Development Economics*, 10, 581–596.
- [39] Sherman, E., Elaine, M., & Smith, R. B. (1997). Consumer Satisfaction With Health-Care Services: The Influence of Involvement. *Psychology and Marketing*, 14, 261–285.
- [40] Shostack, G. L. (1977). Breaking Free from Product Marketing. *Journal of Marketing*, 41 (2), 73-80.
- [41] Silver, N. C., & William L. M. (1988). Sex And Race Differences In Color And Number Preferences. *Perceptual and Motor Skills*, 66, 295-299.
- [42] Smith, P. C., & Curnow. R. (1966). Arousal Hypotheses and the Effects of Music on Purchasing Behavior. *Journal of Applied Psychology*, 50(3), 255-256.
- [43] Swinyard, W. R. (1993). Effect of Mood, Involvement, and Quality of Store Experience on Shopping Intentions. *Journal of Consumer Research*, 20, 271–280.
- [44] Turley, L. W., & Milliman, R. E. (2000). Atmospheric Effects on Shopping Behavior: A Review of the Experimental Evidence. *Journal of Business Research*, 49(2), 193-211.
- [45] Vanderark, S. D., & Ely, D. (1993). Cortisol, Biochemical, and Galvanic Skin Responses to Musical Stimuli of Different Preference Value by College Students in Biology and Music. *Perceptual Motor Skills*, 77, 227–34.
- [46] Vida, I. (2008). Atmospheric Music Fit as a Driver of Shopper Store Evaluations and Their Behavioral Responses. *Journal of Applied Business Research*, 24(2), 97-102.
- [47] Wilson, G. D. (1966). Arousal Properties of Red Versus Green. *Perceptual and Motor Skills*, 23, 947-949.
- [48] Wu, C. S., Cheng, F. F., & Yen, D. C. (2008). The Atmospheric Factors of Online Store Front Environment Design: An Empirical Experiment in Taiwan. *Information & Management*, 45, 493–498.
- [49] Yalch, R. F., & Spangenberg, E. (1990). Effects of Store Music on Shopping Behavior. *Journal of Consumer Marketing*, 7(2), 55–63.
- [50] Zakay, D. (1989). An Integrated Model of Time Estimation. In Iris Levin and Dan Zakay, (eds.), *Time and Human Cognition: A Life Spun Perspective*. Amsterdam: North Holland.
- [51] Zeithaml, V., Parasuraman, A., & Leonard L. B. (1985). Problems and Strategies in Services Marketing. *Journal of Marketing*, 49, 33-46.
- [52] Zeithaml, V. A., Bitner, M. J., & Gemler, D. D. (2006). *Service Marketing: Integrating Customer Focus across the Firm*. The McGraw- Hill companies.