

# Impact of Store Atmospheric on Customer Behavior: Influence of Response Moderators

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*This study aims to explore the theme of creating and managing the store atmosphere of exclusive stores from a customer's point of view. The findings from the study indicate that store atmospheric factors have a significant positive correlation with customer approach behaviors, with intangible factors having the most significant impact among all factors. Store atmospheric factors influence not only customer emotions, but also customer perceptions of commodities and services. Price shows a negative correlation with the customer behavioral response. An important finding of the study reflects that a customer's perceptions and emotional state can affect their behavioral responses and perceptions. Emotional responses act as a moderator between store atmosphere and customer behaviors. A very interesting finding of the study is that the customer behavioral responses are influenced by both social and intangible factors. So, although social factors are difficult to manage, they are of considerable importance to the service provider.*

Managers of retail and service outlets are increasingly recognizing that the store environment significantly affects sales (Milliman, 1982; Smith & Curnow, 1966; Stanley & Sewall, 1976) and customer satisfaction (Bitner, 1990; Harrell, Hutt, & Anderson, 1980). Attitudes towards the store environment have been studied and were found to sometimes be more important in determining store choice than attitudes toward the actual merchandise (Darden, Orhan, & Darden, 1983). Past researchers have found that specific attributes such as product assortment, price, location of the store, and

store layout have a strong impact on the store's overall image (Bearden, 1977; James, Durand, & Dreves, 1976). A positive store image and affordable merchandise are the keys in order for retailers to attain and maintain success in such an increasingly competitive marketplace (Dodds, Monroe, & Grewal, 1991). Moreover, as stated in many studies, store image is an important input in the consumer decision-making process (e.g., Nevin & Houston, 1980). Retailers are working hard to strengthen the environment in their stores in order to create a store atmosphere that will inspire consumer loyalty. Kotler (1973) suggested using atmospherics as a competitive tool in an attempt to attract and maintain a specific target market, especially where product or price differences were nominal. Some retailers claimed that they influenced customers' buying behavior by manipulating store atmosphere via the store's layout, color, lighting, and music.

The idea that store environmental factors can also influence subjective feelings experienced by consumers and influence the shopping intentions, satisfaction, consumption amount, and perceived quality has also been studied (Babin & Attaway, 2000). Since the store atmosphere can affect shopping behavior within the store, it is necessary to develop a framework with which to study such effects. This study attempted to apply the Mehrabian-Russell model (M-R model), an environmental psychology framework, to explore environmental variables in retail settings. The logic of the M-R model emerged as the dominant concept of explaining atmospherics' effects on emotions and behavior (Havlena & Holbrook, 1986). Holbrook and Gardner (1993) investigated the relation between the emotional dimensions of pleasure and arousal and the duration of a consumption experience, which was, in the case of their study, listening to music.

Mehrabian and Russell (1974) proposed the stimulus organism response model (S-O-R), which indicated that the external physical environment influenced an individual's internal state and behavior. Baker, Parasuraman, and Grewal (2002) described the three categories of environmental cues: design, ambient variables, and social variables. Many researchers have shown how environmental cues (music, scent, etc.) affected the emotional state of the consumer, which in turn caused behavioral changes (Chebat & Michon, 2003). Mattila and Wirtz (2001) added that consumers perceived service scapes holistically, and that responses to physical environments depended on a combination of effects. Olney, Holbrook, and Batra (1991) indicated that emotional dimensions like pleasure and arousal mediated the relationship between advertising content and attitudinal components.

The retail industry is concerned with how to improve shopping experiences in order to create a positive impression on customers and increase the length of time they spend in the store. To increase the overall consumption of the shopper, retail stores need to provide a shopping environment that attracts shoppers. To find the answer to all these questions, it is necessary to find the impact of an external shopping environment on customer shopping behaviors and how the store atmosphere should be managed in order to satisfy the customers. To fulfill these objectives, this study explored the relationship between the environment and human behavior in a retail context by using the M-R model, the emotional states induced, and the approach-avoidance behavior of the shoppers. The study explored the mechanism of the atmosphere in a retail store and its influence on a customer's perceived values (PERVAL Scale) and emotions (PAD Scale),

and their approach-avoidance behavior. The impact of perceived values and emotions as a moderator on shopping behaviors was also analyzed in the study.

## Literature Review

Recent work has shown that emotions experienced in the store environment affected the outcome variables of interest to retailers (Donovan & Rossiter, 1982). According to Bitner (1992), retail environments interconnected the store's image and customers, they induced emotional reactions (Donovan et al., 1994), influenced the customers' decisive satisfaction with the service, and the amount of money and time spent in the store by the consumers (Bitner, 1990). Many retailers acknowledged the importance of store environment as a tool for market differentiation (Levy & Weitz, 2000).

### *Environmental Psychology Model*

Environmental psychology focuses on two major constructs: the emotional impact and effects of physical stimuli on a variety of behaviors (Mehrabian & Russell, 1974). The theoretical model developed in work by environmental psychologists Mehrabian and Russell (1974) and Russell and Pratt (1980) were the main inputs to the study. Typically studies looked at the effects of store atmosphere on shopping behavior. In the S-O-R environmental psychology model proposed by Mehrabian and Russell (1974), three dimensions were provided that could describe the emotional states: pleasure, arousal, and dominance. The combination of these three different emotions resulted in different behavioral consequences that led a person to decide whether to remain in a specific environment or not (i.e., approach or avoid).

Donovan and Rossiter (1982) were the first to utilize the S-O-R model and studied retail stores as testing objects. They found the relation between environmental stimulus and behavioral intention existed in two emotional dimensions: pleasure and arousal. Eroglu, Machleit, and Davis (2001, 2003) empirically studied a model that proposed that the atmospheric cues of the online store influenced shoppers' emotional and cognitive states, which then affected their shopping outcomes. They laid the conceptual foundations for the extension of the S-O-R paradigm to online retailing, and provided empirical support for the significant effects of site atmospherics on shopper attitudes, satisfaction, and a variety of approach/avoidance behaviors. The S-O-R psychological model propositions showed a significant effect of site atmospherics on shopper attitudes, satisfaction, and various approach/avoidance behaviors as a result of the emotions experienced during the shopping episode. Marketing articles that have used the S-O-R framework to explain atmospheric effects include Spangenberg, Crowler, and Hasty (1996) and Bitner (1992).

Singh (2006) introduced customer experience value on the basis of the S-O-R model and took the foundation of customer valuations and perceptions to explore how the environmental perceptions and valuations of customers with different shopping motives affected their shopping behavior. Jacoby (2002) contradicted the traditional S-O-R model and emphasized that the traditional model lacked parsimony, comprehensiveness, coherence, and flexibility. In the modern model provided by

him, the three stimulus factors – stimulus, organism, and response – were integrated. Lindenberg and Steg (2007) analyzed the literature in environment psychology in light of this goal framing theory.

Baker (1986) considered that the design of a business environment could produce unique emotional impacts in customers' minds and could increase buying possibilities. He divided environmental factors into three categories: (1) ambient cues, that is, the ambient conditions that could potentially influence customers, such as temperature, music, noise and lighting; (2) design cues, referring to those aesthetic feelings that could be perceived by customers directly, including style, layout and architecture; and (3) social cues, referring to factors related to people in the environment, including customers and store employees. The number, type, and behavior of people were proposed to influence customers' perceptions of stores.

### *Customer Perceived Value*

Customer perceived value states that “value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml, 1988). If it is true that retail customers are “value-driven” (Levy, 1999), then managers need to understand what a customer's value is and where they should focus their attention in order to achieve the needed market place advantage (Woodruff, 1997). In this context, Holbrook (1996) measured three dimensions: (1) extrinsic value and intrinsic value; (2) self-oriented value and other-oriented value; and (3) active value and passive value. Mathwick, Malhotra, and Rigdon (2001) took “economy” and “experience” as two measuring dimensions. Though the names used by the aforementioned scholars were different, their intentions all focused on “customer perception” and “customer benefit”. The shopping value under a retail context included tangible shopping results and intangible value perceptions as well as customer emotions. Customers' shopping behaviors were considered from the acquisition view of the overall experience of value. Babin and Darden (1995) thought that experience value provided two kinds of benefits for customers: external and internal benefits. The former was to acquire concrete benefits from shopping, for example, the commodity purchased and the service enjoyed, etc. The latter referred to the preference of the purchasing experience itself and how the type of preference was related to the results of the experience (Holbrook, 1994).

Bitner's (1992) service scapes model was the earliest theoretical model that involved the concept of perception in store atmosphere. It considered that in the store atmosphere, customers would have perceptual, emotional, and psychological reactions against the environment they were in. These three kinds of reactions would have varying effects on customer behaviors. Sweeney and Wyber (2002) considered that customers' emotional and perceptual reactions must be considered at the same time when exploring the impact of store atmosphere stimulus on customers. The findings showed that the emotional condition and perceptual process could interfere with the impact of musical stimulus on approach-avoidance behaviors at the same time. Sanchez-Fernandez, Iniesta-Bonillo, and Holbrook (2009) documented that deep classification customer perceived value had two constructs. The first defined customer value as a one-dimensional construct based on price and means end theory.

In the second, consumer value was a multidimensional construct that entailed several interrelated dimensions and focused on hedonistic and utilitarian value.

### *Customer Shopping Emotions*

Mood states are a vital set of affective factors that influence consumer behavior in a number of contexts. Specifically, consumers' emotion or mood states are considered a situational variable that affects one's purchasing behavior (Dawson, Bloch, & Ridgway, 1990). Dawson et al. (1990) worked upon the transient emotions that influence shoppers' satisfaction and future shopping intentions. Swinyard (1993) showed interacting effects of in-store mood and the quality of consumers' shopping experiences on future shopping intentions. Mehrabian and Russell (1974) examined ambient (lighting and music) and social cues (number and friendliness of employees) on respondents' pleasure and arousal, and willingness to buy.

Psychological evidence has shown that emotional states can be represented in nearly three orthogonal dimensions, and the pleasure-arousal-dominance (PAD) emotional state model (ESM) provided a sufficient description of emotional states. In the ESM, emotions were classified into six categories (+/- Pleasure, +/- Arousal, and +/- Dominance). The M-R model, which explained the relationship between environments, intervening variables, and behaviors relevant to retail setting using a Stimulus-Organism-Response paradigm, received the widest usage in order to explain shopping emotions in consumer research. According to the M-R model, three emotional responses of pleasure-displeasure, arousal-non arousal, and dominance-submissiveness mediated people's approach or avoidance reactions to environments.

Donovan and Rossiter (1982) showed that pleasure and arousal were significant mediators of intended shopping behaviors including time spent in the store, interpersonal interaction tendencies, willingness to return, and estimated monetary expenditures. The relationship was strongest for the pleasure state, whereas arousal increased the time spent in the store, willingness to interact with sales personnel, and overspending in pleasant environments. It was found that pleasure resulting from exposure to the store atmosphere influenced such in-store behaviors as spending levels, amount of time spent in the store, and willingness to visit again. These findings further specified the nature and range of emotional experiences encountered at the retail level, the marketing/retail factors that affected them, and their impact on the outcome measures of interest to retailers. A particular purpose of this study was also to add to this research stream. Consumers understand that a wide variety of store types can provide the nature of emotional responses to shopping. Emotions are extensively discussed in the marketing research. However, shopping emotions are not extensively described in the marketing literature (Machleit & Eroglu, 2000). The previous research explored the interaction factor for emotional responses to products and services (Desmet, 2005).

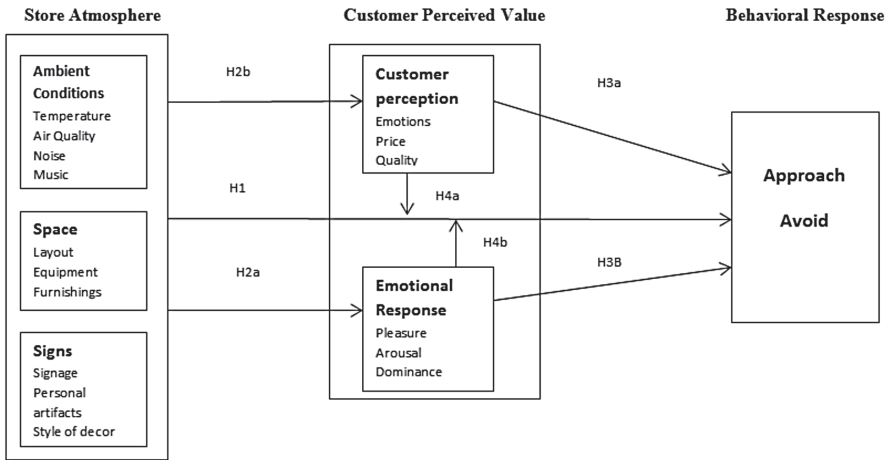
### *Customer Behavior Responses*

In Mehrabian and Russell's (1974) S–O–R model, customer behavioral responses were the customer's intentions of approaching or avoiding a certain environment, referred to as approach-avoidance behaviors. Approach behavior referred to the approach to certain environments by staying, exploring, interacting, and identifying with it, having a good impression of the environment and having the intention to return to that environment again. Avoidance behavior referred to just the opposite; to express dissatisfaction, boredom with the environment and wanting to leave without any intention to return. Customers' responses depended on the extent initiated by the environment and could be used to predict customer emotions and their responses to environment.

In a retail context, Donovan and Rossiter (1982) applied the S–O–R model to study the impact of emotion on customers' presence behaviors. They considered: (1) in general conditions, appropriate arousal level can promote customers to enact accepting behaviors, but excessively high or excessively low arousal level will make customers choose avoidance behaviors; (2) in a pleasant environment, arousal level and customers' acceptance have a positive correlation; (3) in a unpleasant environment, arousal levels and avoidance behaviors have a positive correlation. Baker (1986) and Baker, Levy, and Grewal (1992) studied the connection between a physical environment and a customer's psychological status. Baker et al. (1992) considered that an individual's emotional response to an environment revealed the ability of the environment-regulated emotions; that is, the extent that a customer perceived pleasure and arousal in the environment. They examined the impact of two kinds of environmental factors on customers' emotional assessments and found that surrounding environment factors (background music) affected the extent of customer pleasure along with social factors (store service staff). The extent of arousal that social factors influenced customers complied with the opinions of the S–O–R model in their findings in that customer emotions regarding a store environment had important moderating effects on buying behaviors.

### *Conceptual Model*

Bitner (1992) first introduced the opinion of cognitive valuation in the S–O–R model, and proposed that customers make use of environmental information to infer and value the commodity and service quality, as well as the behaviors they should perform. Retail stores presented commodity and service information to customers through the design of a store atmosphere. Customers would sort the retail store into a certain type according to their perception of the environment and thus form an overall impression to apply as the standard of purchase decisions. In contrast to research of emotions, the current study focused on how the environment affected customers' perceptions towards the store. A conceptual model has been framed which is described in Figure 1. The model explains the individual impact of all three factors of the store atmosphere (ambient conditions, space, signs) on the customers' perceptions and their emotional response. Moreover, the model is extended to determine the relationship of store atmosphere, customer perceptions, and emotional responses with behavioral responses (Avoid and Approach).

**Figure 1: Conceptual Framework**

Using the study of literature and the conceptual framework developed, this study intended to explore the relationship among the shopping environment of a retail store, customer buying perceptions, customer emotional responses, and customer behavioral responses. Research hypotheses were developed as follows:

*H1. Store atmosphere has a positive impact on customer behavioral response.*

*H2a: Store atmosphere has a positive correlation with emotional state.*

*H2b: Store atmosphere has a positive correlation with customer perceptions.*

*H3a1: Product quality is positively correlated to customer behavioral response.*

*H3a2: Product price is negatively correlated to customer behavioral response.*

*H3a3: Product emotions are positively correlated to customer behavioral response.*

*H3a4: Social attributes are positively correlated to customer behavioral response.*

*H3b1: Pleasure has a positive correlation with shopping behavior.*

*H3b2: Arousal has a positive correlation with shopping behavior.*

*H3b3: Dominance has a positive correlation with shopping behavior.*

*H4a: Customer perceptions will moderate the impact of store atmosphere on customer shopping behavior.*

*H4b: Emotional states will moderate the impact of store atmosphere on customer shopping behavior.*

## Research Methodology

### *Research Designs*

The research design of the study involved constructing a survey that measured parameters of customer perceptions and emotional responses and also studied the impact on behavioral responses. A structured questionnaire was designed which had five sections. The first section consisted of basic personal data including gender, age, qualification, monthly income, etc. The second part of the questionnaire included the construct of store atmosphere measurement instruments. The third and fourth parts of the questionnaire showed the items for customer perceptions and emotional states. Finally, the fifth part of the questionnaire had items that reflected the construct of behavioral response. This study adopted the convenience sampling method and data was collected from 15 exclusive apparel stores in Jammu City of the J&K state in India. The stores were selected at random. The customers who were leaving the store after shopping or the customers who were shopping at the store were selected at random and asked to answer a few questions. Some customers denied responding, so a total of 273 customer responses were collected.

### *Measurement Scales*

Store atmosphere factors:

The construct of store atmosphere was measured using the scale provided by Bitner (1992). He separated physical environment into three categories: ambient conditions (12 items), spatial layout and functionality (7 items), and signs, symbols, and artifacts (3 items). A 5–point Likert scale was used which had a total of 22 items that were slightly modified in the context of the present study.

Customer Perceived Value:

Customer perceived value was measured using the scale developed by Sweeney and Soutar (2001). The PERVAL scale measured the customer perceived value, consisting of 19 indicators in 4 categories. This scale aimed at evaluating customer perception of value on a long-term brand level. This kind of measuring method was used to determine the consumption value that could result in attitude and behaviors in the retail transaction environment. It formed four independent value dimensions: emotional, social, quality/performance, and price/value for money. The scale was measured using a 5–point Likert scale.

Emotional state:

Mehrabian and Russell's (1974) PAD semantic differential measure approach was adopted to determine the construct of emotional state. The Mehrabian and Russell emotional dimensions of pleasure and arousal have become principal to marketing contexts, and have the ability to capture a wide range of emotional states experienced in consumption experiences (Dawson et al., 1990). Yet a number of earlier studies found that the third dimension, dominance, was a poor indicator of purchase behaviors. Hence, the third dimension of dominance was not included. The twelve scales drawn from the PAD paradigm were: (Pleasure) happy/unhappy, pleased/annoyed, satisfied/



unsatisfied, pleasant/unpleasant, contented/depressed, important/unimportant; (Arousal) frenzied/sluggish, excited/calm, stimulated/relaxed, jittery/dull, wide awake/sleepy, aroused/not aroused. The order and directions of the scales were randomized, and each was measured using a 7-point scale between bipolar adjectives as in the semantic differential scale.

#### Customer Behavioral Response:

The construct of customer behavioral response was taken from Mehrabian and Russell (1974). Customer behavioral responses were customers' intentions of approaching or avoiding a certain environment. This study used the revised scale proposed by Sweeney and Wyber (2002) on the basis of Donovan and Rossiter (1982), expressing the approach behaviors under retail context as seven items that included customer intentions of visiting, impulse buying and a satisfactory experience, etc. The scale was purified using factor analysis and finally a 4-item scale was generated to be answered on a 5-point Likert scale.

## Results and Analysis

### *Reliability and Validity*

Reliability and validity were assessed on the four multi-item constructs of store atmosphere, customer perceptions, emotional response, and behavioral response. The process of purification consisted of factor analysis (varimax rotation and elimination of items below 0.50 loadings), followed by the examination of the levels of internal consistency. The sample items were first checked for reliability using Cronbach's alpha. A value of 0.6 or less generally indicated unsatisfactory results. The value of Cronbach's alpha for the sample selected for the study came out to be 0.845, greater than 0.6. This implied that the data collected was reliable. The reliability of data collected was tested on individual scales also. The Cronbach's alpha for the construct of store atmosphere came out to be 0.883 which suggested that the three broad variables (ambient conditions, space, and signs) were highly reliable in assessing the store atmosphere construct. The reliability of variable customer perceptions came out to be 0.798, 0.875 for emotional state and 0.866 for the behavioral response construct which were all above the desired score of 0.6, also indicating satisfactory reliability. The results can be analyzed in Table 1.

The process of the purification of the factor started from running a factor analysis of the statements of impulse buying and then shopping emotions. A separate factor analysis was carried out on the 18 emotional measure items and individual factor loadings of pleasure, arousal and dominance were deduced (Billings, 1990). The results of factor analysis on this study can be analyzed in Table 1 and Table 2. The study made use of the sample adequacy of Kaiser–Meyer Olkin (KMO) and Bartlett's Test of Sphericity to measure and examine whether constructs of this study were fit for factor analysis or not. Individual KMO values of the four constructs were evaluated and the value for store dimensions, customer perceptions, emotional states and customer behavioral responses were 0.861, 0.886, 0.821 and 0.855 respectively. Meanwhile Bartlett's Test of Sphericity achieved a significant level, reflecting the data was fit for conducting factor analysis.

**Table 1:** Measures, Construct Reliability and Factor Loadings for All Constructs

Construct	Measures	Loadings	Construct Reliability
<b>Store Atmosphere</b>	<b><i>Ambient Conditions</i></b>		<b>0.883</b>
	The background music played in the stores is soothing	0.772	
	The type of music which is played at stores is the kind of music I usually listen to	0.659	
	The existence of music increases my well-being and comfort	0.813	
	The lighting in the store makes the merchandise more attractive	0.792	
	The lighting in the store makes me evaluate the quality of merchandise	0.881	
	The overall lighting at the store is adequate	0.847	
	The better the lighting, the more comfortable I am	0.691	
	Noise at the store distracts me from selecting the goods	0.852	
	The cleanliness of the store attracts me towards the store	0.819	
	The overall ambience in the store increases my duration at store	0.901	
	The quality of air in the store makes me relaxed	0.783	
	The temperature of the store makes me stay for a longer time at store	0.918	
	<b><i>Space and functions</i></b>		
	The corridors within the store allow for good circulation	0.683	
	The store has sufficient space to locate my product easily	0.728	
	Each section of the store is properly managed	0.739	
	The product organization allows me to identify the location of products easily	0.843	
	The furnishing of the store is very comfortable	0.874	
	Location of each section within the store is important	0.779	
	Store displays allow me to see the available products more easily	0.831	
	<b><i>Signs and Symbols</i></b>		
	The signs used within the store make it easier to locate my product	0.938	
	Signs and symbols within the store are important	0.846	
	Signs and symbols help me recall the brand	0.862	

Construct	Measures	Loadings	Construct Reliability
<b>Customer Perceptions</b>	<i>Quality</i>		<b>0.866</b>
	Product has consistent quality	0.918	
	Product is well made	0.883	
	Product has an acceptable standard of quality	0.831	
	Product would last for a long time	0.532	
	Product will perform consistently	0.853	
	<i>Emotions</i>		
	Product is one that I would enjoy	0.694	
	Product would make me want to use it	0.785	
	Product is the one that I would feel relaxed about using	0.763	
	Product would make me feel good	0.753	
	Product would give me pleasure	0.798	
	<i>Price</i>		
	Product is reasonably priced	0.859	
	Product offers value for money	0.818	
	Product is a good product for the price	0.786	
	Product would be economical	0.583	
	<i>Social</i>		
	Product would help me to feel acceptable	0.885	
Product would improve the way I am perceived	0.831		
Product would make a good impression on the other people	0.803		
Product would give its owner social approval	0.912		
<b>Emotional State</b>	Unhappy / Happy	0.943	<b>0.875</b>
	Annoyed / Pleased	0.918	
	Unsatisfied / Satisfied	0.886	
	Melancholic / Contented	0.854	
	Despairing / Hopeful	0.793	
	Bored / Relaxed	0.829	
	Relaxed / Stimulated	0.859	
	Calm / Excited	0.837	
	Sluggish / Frenzied	0.903	
	Dull / Jittery	0.951	
	Slept / Wide Awake	0.893	
	Unaroused / Aroused	0.851	
	Controlled / Controlling	0.897	
	Influenced / Influential	0.752	
	Cared For / In Control	0.694	
	Awed / Important	0.736	
Submissive / Dominant	0.862		
Guided / Autonomous	0.803		
<b>Behavioral Response</b>	I will recommend the product to my friends	0.894	<b>0.866</b>
	I am willing to buy	0.905	
	I will repeat my purchase in the store	0.861	
	Shopping in the store was a nice experience	0.786	

After the factor analysis, each of the constructs was further reduced and a smaller set of constructs was developed. For the first construct, store atmosphere, a factor analysis was conducted and reduced the data into 7 factors. The attribute value of each factor dimension was bigger than 1 with a cumulative total variance explained ratio of 91.956%. The dimensions of factor analysis were named as Intangible Factors, Image of Service Provider, Physical Ambience, In Store Spacing, Store Friendliness, Social Attribute, and Store Design. A total of 18 items were present in the customer perception construct which was reduced into 4 factors with a total variance explained of 88.933%. The dimensions of the factor were named as Sociability with Product, Value for Money, Acknowledgment with Product, and Perception of Service. For the third construct of customer behavioral response a factor analysis was run which reduced it into two factors which were named as Approach and Avoid.

**Table 2:** *Regression Analysis Between Store Atmosphere and Consumer Behavioral Response*

<b>Order of Importance</b>	<b>Factor</b>	<b>Regression Coefficient</b>
<b>1</b>	<b>Intangible Factors</b>	<b>.898</b>
<b>2</b>	<b>Image of Service provider</b>	<b>.798</b>
<b>3</b>	<b>Social Attribute</b>	<b>.646</b>
<b>4</b>	<b>Store Friendliness</b>	<b>.886</b>
<b>5</b>	<b>Store Design</b>	<b>.825</b>
<b>6</b>	<b>In Store Spacing</b>	<b>.734</b>

A multiple regression analysis was run between the store atmosphere factors and the behavioral responses. Store atmosphere showed a significant relationship with consumers' behavioral responses with all beta values having a significantly strong value. The results can be viewed in Table 2 and depict the importance of Intangible Factors on customer behavioral response with the strongest beta value of .898, which illustrated the importance music, scent, noise, and room temperature had on consumers' behavior. Consumers enjoyed shopping at those stores where the intangible factors were maintained by the retailer. Consumer behavioral response was also influenced by Store Friendliness with the beta value .886 which suggested that the relationship maintained by the retailer with the customers affected their overall behavior. Although the lowest beta value but significantly strong value was reported for Social Attribute at .646. Thus, all the store atmospheric variables significantly affected the customer behavioral responses, hence supporting H1.

**Table 3:** Regression Between Store Atmospherics and Customer Perceived Value

Factor of Store Atmospherics	Regression Coefficient		
	Pleasure	Arousal	Dominance
Intangible Factors	.891	.798	.831
Image Of Service Provider	.849	**	.674
Physical Ambience	.769	**	.791
In Store Spacing	**	.676	**
Social Attribute	.772	.784	.742
Friendliness	.810	**	**
Store Design	.696	.812	.861

Note: \*\* = not significant ( $p > .005$ )

A multiple regression analysis between store atmosphere factors and emotional states (pleasure, arousal, and dominance) was also run. Pleasure, arousal, and dominance reported a significant relationship with store atmosphere. In the case of pleasure, all store atmosphere factors showed a significant B coefficient except in store spacing. While in the case of arousal, image of the service provider, physical ambience, and friendliness showed an insignificant B coefficient. When dominance was measured, all the factors showed a positive regression coefficient except in store spacing and friendliness. It can be said that store atmosphere factors were significantly affected by emotional states (pleasure, arousal, and dominance), which supported H2a.

**Table 4:** Regression Between Store Atmosphere and Consumer Perception

Factor of Store Atmospherics	Regression Coefficients			
	Sociability with Product	Value for Money	Acknowledgement with Product	Perception Service
Intangible Factors	.684	.846	**	.831
Image of Service Provider	.761	**	.759	.781
Physical Ambience	.747	.612	.812	.842
In Store Spacing	.695	**	.775	.649
Social Attribute	.819	.854	**	.762
Friendliness	.779	**	.614	.883
Store Design	**	.775	.845	.819

Note: \*\* = not significant ( $p > .005$ )

Table 4 depicted the result of the regression between store atmospherics and customer perceptions. Sociability with product showed the highest beta value (.819) for social attributes, whereas intangible factors revealed the lowest beta value (.684) for intangible factors. But store design had an insignificant regression coefficient. In the case of value for money, in store spacing, social attribute, and friendliness showed an insignificant relationship. The relationship between acknowledgements with product and intangible factors, and social attributes also showed an insignificant association. In acknowledgements with product, physical ambience showed the highest beta value (.812). Hence, it can be deduced that store atmosphere had a significant relationship with customer perceptions. Emotional states and customer perceptions both had a significant relationship with store atmosphere so H2 was supported.

**Table 5:** Logistic Regression Between Customer Perception and Customer Behavioral Response

	B	S.E	Sig	Exp B
Product Quality	.521	.203	.000	.953
Product Price	-.786	.094	.000	.691
Emotions	.641	.125	.000	.873
Social Attribute	.588	.139	.001	.716
Pleasure	.795	.132	.002	.743
Arousal	.827	.097	.002	.818
Dominance	.712	.045	.213	.687
Constant	.973	.573	.000	.796

A logistic regression was run to find out the probability of behavioral response as a function of emotional states and customer perceptions. These 7 independent variables in logistic regression produced the likelihood ratio chi-square of 29.101 ( $p=0.002$ ). In case of Customer Perception, all four factors came out to be significant. For product quality, Exp (B), came out to be .953 and the regression coefficient was significant ( $p=.000$ ), thereby supporting H3a1. Emotions and Social attributes were also significant with Exp (B) as .873 and .716 respectively. This supported hypothesis H3a3 and H3a4. But the product price showed a negative relation with the customer behavioral response. The B value came out to be -.786 but it was significant with  $p=.000$ . So the hypothesis H3a2 is supported. Similarly when we evaluated the Exp (B) for pleasure and arousal it came out to be .743 and .818 respectively with the regression coefficient as significant ( $p=.000$ ). The results show that pleasure and arousal were important factors towards the behavioral responses of customers. This supported hypothesis H3b1 and H3b2. The logistic regression run on dominance showed opposite results. Although the Exp (B) came out to be .687, the regression coefficient was insignificant ( $p=.213$ ). This showed dominance had no impact on customer behavioral response.

It can be concluded from the aforementioned analyses that the results received from efforts on store atmosphere management and the promotion of positive emotions were much better than reducing the effects of negative emotions. Meanwhile, product quality, emotions, and social attribute had a positive correlation with customer approach behaviors, indicating commodity and service perception influenced their sense of satisfaction, impulse consumption behaviors, and intention of repeated presence.

**Table 6:** Moderating Effect of Customer Perceived Value on Behavioral Responses

Variables	STEP 1			STEP 2			STEP 3		
	B	t	p	B	t	p	B	t	p
Quality	.751	3.825	.000	.681	2.289	.003	.769	3.558	.000
Price	-.373	-2.402	.000	-.440	-.112	.003	-.210	-1.262	-.794
Emotions	.833	5.256	.002	.827	5.876	.001	.7873	2.34	.000
Social	.769	3.585	.559	.708	3.651	.516	.745	4.151	.149
Store Atmosphere	.728	3.74	.000	.864	4.963	.000	.663	2.567	.000
Behavioral Response				.745	3.788	.000	.815	4.232	.000
Quality × Behavioral Buying							.845	5.988	.002
Price × Behavioral Buying							-.491	.775	.000
Emotions × Behavioral Buying							.854	3.765	.000
Social × Behavioral Buying							.723	2.705	.090
Store Atmosphere × Behavioral Buying							.843	4.856	.000
Constant	5.374	45.92	.000	5.382	47.696	.000	10.26	7.427	.000
R <sup>2</sup>	.798			.765			.864		
Adjusted R <sup>2</sup>	.818			.795			.879		
F value	10.363			9.923			11.387		

Another important aim of the study was to investigate the moderating effect of customer perceptions on behavioral responses. The data were analyzed using a hierarchical moderated regression. The moderated regression results are summarized in Table 6 above. Entering the independent variables, the moderator, and the interaction terms in the multiple regression generated an R-square of .839 ( $F = 11.387$ ,  $p = .002$ ). It was hypothesized that customer perceptions would moderate the relationship between store atmospheric factors and customer behavioral responses but as represented in Table 6, the interaction term of quality and behavioral responses in Step 3 was statistically significant ( $t = 5.988$ ,  $p = .002$ ) and emotions also played a strong role with  $t = 3.765$  (with  $p = .000$ ). But price was seen to have a negative relation with the behavioral responses with  $B = -.491$ , although the value was significant where  $p = .004$ . Thus, the hypothesis H4a was supported because customer perceptions acted as a moderator between store atmosphere and behavioral responses. The significant value of store atmosphere and behavioral response signified that both had a strong correlation ( $t = 4.856$ ,  $p = .000$ ). Overall, findings from the moderated regression analysis demonstrated that customer perceptions have a moderating role in quality, price, and emotions.

**Table 7:** Moderated Regression Between Emotional States and Behavioral Response

Variables	STEP 1			STEP 2			STEP 3		
	B	t	p	B	t	p	B	t	p
Pleasure	.711	3.921	.000	.743	3.169	.003	.674	2.458	.000
Arousal	.883	4.487	.000	.8694	.312	.000	.762	3.262	.000
Dominance	.862	5.156	.000	.817	3.976	.001	.787	3.234	.000
Store Atmosphere				.8544	.618	.000	.887	3.232	.000
Behavioral Buying							.845	4.678	.002
Pleasure× Behavioral Buying							.818	4.775	.001
Arousal× Behavioral Buying							.754	3.765	.000
Dominance×Behavioral Buying							.723	3.705	.000
Store Atmosphere× Behavioral Buying							.756	3.662	.000
Constant	5.321	42.72	.000	5.273	45.196	.000	10.56	7.227	.000
R2	.768			.754			.839		
Adjusted R2	.832			.798			.865		
F value	9.916			9.327			10.410		

Another important aim of the study was to investigate the moderating effect of emotional states on behavioral response. The moderated regression results were summarized in Table 7. Entering the independent variables, the moderator, and the interaction terms in the multiple regression generated an R-square of .839 ( $F = 10.410$ ,  $p = .000$ ). It was hypothesized that emotional state would moderate the relationship between store atmosphere and behavioral response. As represented in Table 7, the interaction term of pleasure and buying impulsiveness traits in Step 3 was statistically significant ( $t = 4.775$ ,  $p = .001$ ) and arousal and dominance also played a strong role with  $t = 3.765$ , and  $t = 3.705$  respectively, with  $p = .000$ . Thus, the hypothesis was supported as store atmosphere was found to affect the pleasure, arousal, and dominance with behavioral response. Store atmosphere was found to be significantly associated with behavioral response. Overall, findings from the moderated regression analysis demonstrated that emotional states had a substantial moderating role in pleasure, arousal and dominance.

## Conclusion

### *Store Atmosphere Factors Will Impact Customer Behavioral Response Significantly (S-R)*

All store atmospheric factors had a significant impact on customer behaviors. In order from highest to lowest according to the extent of impact, the factors were intangible factors, image of service provider, social attribute, physical ambience, store friendliness, design, and spacing. This revealed that the intangible factors of a store were the biggest environmental factors that impacted customer behavioral



response. Its power of influence and interpretation were significantly higher than other factors. Customers paid special attention to the design of a store including whether the layout and overall structure was reasonable, how the interior decoration was, whether the signs were clear, and whether the display of commodities in corridor space, commodity information and classification was complete and convenient. All the aforementioned factors have a significant positive correlation with customer approach behaviors, indicating that customer behaviors in an exclusive store were mainly affected by the environmental factors that had the biggest relevance with commodity. The image of a service provider and social attribute, that is, the clothing and attitude of service personnel, were also considered by customers as critical factors that influenced their behaviors.

#### *Store Atmospheric Factors Will Impact Customer Perceived Value (S-O)*

This study added cognitive valuation as an important driving factor of customer perceived environment on the basis of the S-O-R model to explore how customer perceptions and emotional states influenced customers' environment perceptions and their shopping behavior responses. Therefore, the effective management of service provided significantly promoted customer perceptions of commodity value. Secondly, the factors that influenced customer perceptions are sociability with the product and acknowledgement with product. When the emotional states of pleasure, arousal and dominance were discussed, all three factors showed significant importance towards the store atmospheric factors.

#### *Customer Perceived Value Will Affect Customer Approach Behavior Significantly (O-R)*

It can be concluded from the aforementioned analyses that the results received from efforts on store atmosphere management and promotion of positive emotions were much better than reducing the effects of negative emotions. Meanwhile, factors of customer perceptions, quality, emotions, and social attributes had a significant positive correlation with customer approach behaviors. Only price showed a negative correlation with the behavioral response.

Customer perceptions and emotional states showed a moderating effect between store atmospherics and customer behavioral responses. Customer perceptions acted as an interface between the store atmospherics and behavioral responses. Similarly, emotional state responses showed a moderating effect between store atmospherics and behavioral responses. The interface effect was not very obvious, which indicated that store atmospheric factors influenced customer behavioral responses through channels.

### **Managerial Implications**

According to analytical conclusions, this study proposed the following suggestions that can be taken as references when enterprises in the industry make marketing strategies.

### *Management of Retail Environment's Design Factors*

Empirical studies showed store design factors were significantly correlated with their impact on customer perception and customer behavioral response. According to the conclusion that design factors significantly affected customer perceived value, exclusive stores should pay attention to highlight the functional value of design factors and promote customers' perceptions of commodity value with a reasonable display and information presentation of commodities. Other than the common application of promotional commodities in decorated carts and large-size promotional signs, other alternatives of comparing similar commodities include putting main commodities with high profits and those with a high price side-by-side to increase the chances of a customer selecting them. All these methods can promote a customer's perception of commodity value effectively. Secondly, based on the conclusion that design factors had a significant impact on customers' positive emotions, exclusive stores should design the overall layout of the store environment based on a shopping customers' mood when managing design factors in order to make customers feel relaxed and at ease without any anxiety and promote positive emotions. Clear and explicit signs navigating the customer throughout the store should also be installed as well as the locations of other functional facilities so that customers can see them clearly when entering the store. In addition, a special atmosphere created for customers to promote their enjoyment in shopping can increase the frequency of their visits and the duration of each visit. Both can be quite effective in increasing sales volume.

### *Management of Retail Environment's Social Factors*

A retail environment's social factors mainly affected customers' perception evaluation and behavioral responses. Social factors were factors that were difficult to control by retail enterprises. But they could influence social environmental factors through the appropriate management measures and marketing strategies. For example, enterprises could improve the service staff's clothing and behavioral management through the regulation of services. They could also reduce the crowds in stores through a reasonable route design in the store so as to enable it with a favorable socially interactive atmosphere. Research outcomes showed that the service behaviors and emotional expressions of service staff were key factors that influenced a customer's consumption, emotion, satisfaction, and desire for repurchase. If the service staff were concerned about customer benefits, knowing the customer's demands and providing them with prompt services would enable customers not only to experience the perfect shopping environment, but also to perceive the amicability, honesty, and concerns of the staff. They would definitely leave the customers with an unforgettable impression and thus promote customer trust and satisfaction in the store and increase the likelihood they would return.

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