Impact of Store Environment on Adult Generation Y Consumers' Impulse Buying

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Generation Y is emerging as an enormous force in the U.S. marketplace, with its growing spending power and its members' unique spending patterns. This research employs the Mehrabian and Russell (1974) S-O-R model to study the impact of store environments on the impulse buying behaviors of adult Generation Y consumers. Results show that store environments have a significant influence on these consumers' emotional states, including pleasure and arousal, which in turn influence consumers' impulse buying behaviors in the store. This study also indicates that the relationship between store environment and adult Generation Y consumers' emotional states is moderated by personal factors such as arousability, and by situational factors such as time pressure. Suggestions are provided for future research.

Introduction

Until recently, Baby Boomers, with over 76 million members strong, were the largest consumer market in the U.S. However, as members of this generation have gradually entered retirement age and their spending has shifted from trendy goods to more mature, need-driven products, Generation Y has emerged as an enormous force which will inevitably rival Baby Boomers' market dominance (Cortes, 2004).

Born between 1977 and 1994, members of Generation Y, also called "Millennials" or "Echo-Boomers," represent an estimated 71-80 million consumers in the United States (Gronbach, 2000; Martin and Turley, 2004). Cortes (2004) states that Generation Y is a less homogenous market than its predecessors, and because of this, Generation Y is typically examined in terms of different age groups. According to Paul (2001), in the US in 2001, 30% of Generation Y were between the age of 7 and 11 (also known as "tweens"), 34% were between the ages of 12 and 17 ("teens"), and 36% were between the ages of 18 and 24 ("young adults" or "adult" Generation Y). Collectively, this generation has an estimated spending power of around $300 billion (Bronson, 2000).

Among the age cohorts of Generation Y, the adults of Generation Y represent the wealthiest group, as many members of this group are employed in either part-time or full-time jobs. A significant number of these adult Generation Y consumers are also either part-time or full-time college students. Of those adult Generation Y consumers attending college, nearly 80% are employed. According to Gardyn (2002), the average college student has about $287 to spend on discretionary items per month, or about $3,444 per year, which equals a buying power of $200 billion each year for the group. And from year to year, Generation Y members' expenditures on fashion items, including apparel, accessories, and footwear, is increasing (Generation Y spending on the rise, 2004). In addition to the growth of its spending power, Generation Y has been recognized as having distinctively different tastes and preferences from other

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generations. Generation Y has been characterized as media and Internet savvy, trend-setting in fashion, being receptive to new products, and having the potential to become lifelong customers (Bush et.al., 2004). They have also been described as consumers that "love adventure and expect immediate gratification." (Cortes, 2004). Known for "jeans, music, and fast food" consumption patterns, this generation is said to "prefer directness over subtley, action over observation, and cool over all else" (Marlatt, 1999, p. 39). Generation Y consumers are very likely to spend their cash as quickly as they acquire it, usually on consumer goods and personal services (Der Hovanesian, 1999). Compared to their predecessors, members of Generation Y are more likely to be involved in compulsive and impulse buying ("Research in Action," 2004).

Due to its size and spending power, Generation Y deserves close attention from both the retail industry and academia. Research has been done to describe the consumer traits of Generation Y (e.g., Bakewell and Mitchell, 2003; Martin and Turley, 2004) and general consumer impulse buying (Bellenger et al, 1978; Rook and Fisher, 1995). However, there are very few studies which have focused on the impulse buying behavior of Generation Y consumers. The purpose of this research is to study one component of this: the impact of store environments on the impulse shopping behavior of adult Generation Y consumers.

Theoretical Background

Store Environment

Retailers are known to design store environments in a manner that will enhance consumers' positive feelings, under the assumption that this will lead to desired consumer behaviors, such a higher willingness to purchase or stay in the store for longer. The importance of store environment in enhancing the shopping experiences of consumers has long been appreciated. One recent comprehensive study on the influence of store environment was conducted by Baker et al (2002). This study shows a significantly positive influence of a store environment on consumer patronage. Three types of store environment cues were studied in their research: *ambient*, *design,* and *social*. *Ambient* cues refer to the background characteristics of a store, such as temperature, lighting, noise, music, and ambient scent. *Design* cues include stimuli that exist at the forefront of consumers' awareness, such as architecture, color, and materials. *Social* cues refer to conditions related to the number, type, and behavior of customers and employees, and similar characteristics (Bitner, 1992).

Many researchers argue that the influence of store environment on consumer purchase behavior is mediated by the consumer's emotional state. Donovan and Rossiter (1982) were one of the earliest in studying the mediating role of consumer emotion in this context. They suggest that store atmosphere, engendered by the usual myriad of in-store variables, is represented psychologically by consumers in terms of two major emotional states: pleasure and arousal. These two emotional states are significant mediators of shopping behaviors within the store, such as enjoyment of shopping in the store, time spent browsing and exploring the store's offerings, willingness to talk to

sales personnel, tendency to spend more money than originally planned, and likelihood of returning to the store.

Bitner (1992) argues that the physical environment of the store may elicit cognitive, emotional, and physiological responses which will influence consumers' approach or avoidance behavior in the retailing context. Approach behavior may include staying longer in the store, spending more money, and/or buying more merchandise. Bitner also suggests that the strength and direction of the relation between store environment and a consumer's response to the environment is moderated by personal and situational factors. Previous studies have shown that personality traits can influence a person's reaction to the physical surroundings (Mehrabian and Russell, 1974; Russell and Snodgrass, 1987). An individual's response to an environment often depends on situational factors as well, such as their plans or purposes for being in the environment (Russell and Snodgrass, 1987).

Donovan et al (1994) found that the emotional states of a consumer induced by store environments (e.g., pleasure and arousal) appear to be a strong reason why consumers spend extra time in certain stores, and spend more money than initially intended. Their research also suggests that the contribution of these emotional variables to consumer behavior is independent of cognitive variables such as individual perceptions of quality and price. However, impulse buying or overspending may result from a desire to alleviate negative emotions as well as from experiencing positive emotions. In other words, people may have various negatively-originated or positively-originated motives for overspending. Donovan et al. (1994) believes that further classification of the relationship between shopping motives and emotional states is needed.

Sherman et al (1997) also studied the mediating role of consumer emotions in the influence of store environment on consumer purchase behavior. Their results suggest that although cognitive factors may largely account for store selection and for most planned purchases within the store, the environment in the store and the emotional state of consumers may be important determinants of certain purchase behaviors, such as impulse buying. Sherman et. al. (1997) recommends that future studies investigate different types of shoppers and their motivations when entering the store and how various consumer groups react to store image and atmosphere.

In addition to ambient, design, and social cues, crowding is another factor that researchers believe to have an influence on consumer shopping behavior. Perceived crowding is a result of physical, social, and personal factors that sensitize the individual to actual or potential problems arising from scarce space (Stokols, 1972). When the number of people, objects, or both, in a limited space restricts or interferes with activities and goal achievement, an individual will perceive the environment to be crowded. Research has shown that the level of in-store crowding perceived by shoppers can affect their patronage decisions as well as their satisfaction with overall shopping activity (Eroglu and Machleit, 1990).

Impulse Buying

Impulse buying is an important phenomenon in consumer behavior and retailing. Extensive research has been conducted to define, explain, and measure purchase on impulse. A widely adopted definition is proposed by Rook and co-authors (Rook and Hoch, 1985; Rook, 1987; Rook and Fisher, 1995): impulse buying occurs when an individual feels a sudden, often powerful and persistent desire to make an unintended, unreflective, and immediate purchase after being exposed to certain stimuli. The purchase is unintended because it is made while shopping, when the individual is not actively looking for that item, has no preshopping plans to purchase the item, and is not engaged in a shopping task, such as looking for a gift, which the item satisfies. Unintended buying arises from a sudden urge to buy a specific item while shopping. Impulse buying is unreflective in that the purchase is made without engaging in a great deal of evaluation. An urge toward action discourages consideration of the potential consequences of the behavior. Impulse buying is immediate in that the time interval between seeing the item and buying is short, and the decision to buy is made on the spur of the moment.

A study by Beatty and Ferrell (1998) suggests that impulse purchasing is closely linked to hedonic consumption and sensory stimulation. Rook (1987) also suggests that consumer impulsivity is a lifestyle trait which can be linked to materialism, sensation seeking, and recreational aspects of shopping. Recreational shoppers, like shoppers motivated by hedonic values, are less likely to have an idea of what they are going to buy when they go shopping, which suggests greater levels of impulse purchasing, and they spend more time shopping per trip on average (Bellenger and Korgaonkar, 1980).

In their study of buying impulses, Rook and Hoch (1985) found that impulsive shoppers tend to enjoy shopping more than those who are more cautious in their buying styles. Gender differences also exist, as females in the study enjoyed shopping more than males and tended to be more impulsive. This gender difference in consumer impulsivity could partly reflect the fact that men and women typically shop for different kinds of products and have different shopping motivations.

Research Model

This research uses the S-O-R model from Mehrabian and Russell (1974) to study the impact of store environment on impulse buying behaviors of adult Generation Y consumers. According to this model, environment sensory variables (Stimulus) influence affective response (Organism) to the environment, which in turn induces consumers to approach or avoid the environment (Response). Further, as argued by Bitner (1992), the moderating factors on the stimulus-organism (environment-emotional response) relationship are also studied. Accordingly, the following propositions and hypotheses are presented:

Proposition 1: *Store environment induces emotional responses*. Mehrabian and Russell (1974) argue that there are three emotional responses to physical and social environments: pleasure, arousal, and dominance. Pleasure refers to the degree

to which a person feels good, joyful, happy, or satisfied in a situation. Arousal refers to the degree to which a person feels excited, stimulated, alert, or active in a situation. Dominance refers to the extent to which the individual feels in control of, or free to act in a situation. Russell and Pratt (1980) note that the two dimensions of pleasure and arousal are adequate to represent people's emotional or affective responses to a wide range of environment. Therefore, the following two hypotheses can be developed for this proposition:

H1:   *Store environment (in terms of design, ambient, employee, and crowding factors) positively influences pleasure experienced in the store.*

H2:   *Store environment (in terms of design, ambient, employee, and crowding factors) positively influences arousal experienced in the store.*

Proposition 2: *Consumers' emotional responses to the store environment will influence their impulse buying behavior in the store.* Previous studies (Donovan, Rossiter, Marcoolyn, and Nesdale, 1994; Sherman, Mathur, and Smith, 1997) show that when an individual feels happy and enjoys the environment, they will intend to stay longer in the store, buy more items, and spend more money. Therefore, the following two hypotheses can be developed:

H3:   *Pleasure experienced within the store positively influences impulse buying.*

H4:   *Arousal experienced within the store positively influences impulse buying.*

Proposition 3: *The strength and direction of the relationships between store environment cues and emotional responses will be moderated by personal and situational factors.* Individuals with different personal factors, such as arousal-seeking and the ability to screen environment stimuli, will respond differently to the same environment. Arousal-seekers enjoy and will look for high levels of stimulation, while arousal-avoiders prefer environments with lower levels of stimulation. An arousal-avoider may dislike crowded, noisy, and brightly-colored store environments, whereas an arousal-seeker may feel happy and comfortable in such environments. While some people are sensitive to the environment, there are others who are "immune" to the influence of the environment.

The shopping situation of a consumer will also influence their response to an environment. A person with plenty of time to enjoy the socialization or boredom escapism while in a store may respond very differently to the environment than someone who is on a mission to find a specific item.

Taking all of this into consideration, the following hypotheses can be developed for this proposition:

H5:   *Personality traits (in this study, Trait Arousability) will have a significant influence on the relationship between store environment and adult Generation Y consumers' emotional responses to the environment. Specifically, the emotional responses to the environment will differ between arousal-seekers and arousal-avoiders.*

H6:   *Situational factors (specifically perceived time pressure for this study) will have a significant influence on the relationship between store environment and emotional responses to the environment.*

The proposed research model for this research is given in Figure 1.

Methodology

Data Collection and Analysis

Since Generation Y is diverse, the target sample in this study focused on a segment of this population group: consumers aged 18-30, or adult Generation Y. Surveys were administered using a mall intercept interview method in four large shopping malls located in two Midwestern states. The interviewers were four upper division students at a Midwestern university. Considering part of this target population is college students while others may have full-time jobs, the interviews took place both weekends and weekdays to reduce bias.

The typical shoppers targeted for the intercept interview were those who appeared to be in the 18-30 age range and had a shopping bag in their hands. The interviewers intercepted the target shoppers and asked about their interest in participating in the survey. Respondents were offered a small gift to encourage participation. These consumers were given a questionnaire that takes about 10 minutes to complete. Of the 415 surveys completed, 324 were usable.

Two statistical software applications were used for data analysis. SPSS 14.0 was used for descriptive statistics. LISREL 8.7 was used to conduct Confirmatory Factor Analysis and Structural Equation Modeling (SEM) to test the hypotheses.

A Confirmatory Factor Analysis was conducted for each of the variables that were measured by several items. The results show that a majority of the variables are well-measured by their respective items. However, for crowding, three items were removed due to low factor loadings. For the Trait Arousability Scale (TAS), only seven out of the 14 items had a significant relationship with the latent variable, as suggested by the high factor loading. These seven items were used to calculate a TAS score, which was employed to split the sample as described later in this paper.

Measurement of Variables

Impulse Buying. Respondents were asked to recall the store in which they stayed the longest or bought the most items. Then they were asked to indicate how many items were bought in that store and among those items, how many were bought
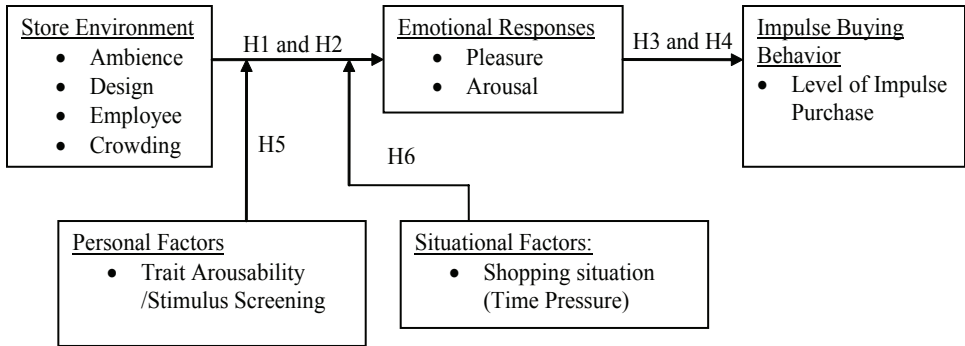
Figure 1.
Research Model.

on impulse. The proportion of the items bought on impulse to the total items bought in that store was calculated to measure the level of impulse buying, with 0 indicating no impulse buying and 1 indicating all items were bought on impulse.

Store Environment. Four types of environment cues were measured for the store where the respondent reported to have purchased the most items or stayed for the longest time: ambience, design, employee, and crowding. Items adopted from the study of Baker et al. (2002) and the scale developed by Sherman, Mathur, and Smith (1997) were used to measure the design, ambient, and employee cues of the store environment. These items were measured with a 5-point semantic-differential scale. Crowding was measured using the 7-point Likert scale developed by Machleit et. al (2000).

Consumer's Emotional Responses. Pleasure and arousal were measured with the Mehrabian-Russell (1974) scale, using an 8-point semantic-differential scale. A confirmatory factor analysis was employed to test the association of each item to the variable measured.

Trait Arousability. The Trait Arousability Scale (TAS) developed by Mehrabian (1994) was used in this study to measure individuals' different levels of reaction to their environments. This study adopted the 14-item abbreviated version, where each item is measured on a 5-point Likert scale. A confirmatory factor analysis was employed to test the association of each item to the variable measured.

Time Pressure. The respondent was asked to indicate their perception of time while in the store. Two time perceptions were provided for the respondent to choose with one having time pressure experienced and the other having no time pressure.

Results

Sample Profile

The majority of the respondents were female (77.2%), white (88.6%), single (77.2%), and students (67.6%). About 60% of them had a college degree or were

attending college. One-third of the respondents worked full time, one-third part-time, and one-third were not working. Consistent with their diverse work situations, the respondents also varied significantly in their available disposable money per month. About 26% of the respondents had less than $100 a month, 31% between $100 and $200, 22% between $200 and $400, and the remaining 20% had more than $400 a month in disposable income. Mall shopping frequencies also varied; about 30% shop at least once a week, 17% twice a month, 34% once a month, and 20% less than once a month. There was a long list of favorite brands of the respondents, including American Eagle Outfitter, Abercrombie & Fitch, Forever 21, J Crew, Gap, and Express.

Respondents' General Shopping Situation for this Specific Shopping Trip

The respondents in general were slightly more hedonic-driven than task-oriented in their responses when asked about their motivation for their shopping trip. About 72% of the respondents stated that their motivation for this trip was to have fun. Only about 53% stated that they primarily wanted to get things done, and just 27% stated they were task-focused for this trip. Only 28% of the respondents had a shopping list.

The respondents were divided equally with respect to their budget; 50% had a predetermined budget, while the other 50% did not think that their budget was an issue for this trip. About 88% of the respondents had a companion or companions for this trip.

Each respondent was asked to identify the store where they bought the most items or stayed for the longest time. While about 21% of the respondents stated that they were in a hurry while in that particular store, the remaining 79% did not experience any time pressure and were just enjoying themselves while exploring the store. Out of the 324 respondents, around 65% bought something on impulse, including clothing items, shoes, accessories, small gifts, and music. Among those respondents who made impulse purchases, about 50% stated that "when I saw the item, I just loved it and desired to own it," when asked to describe the reason why they purchased those items on impulse.

Hypotheses Testing

A Structural Equation Model was developed to test the relationships among the three sets of variables: environment cues, emotional responses, and impulse buying behavior. The overall fit of the model is given in Figure 2. Although the chi-square statistic does not suggest that the data fit this model ($\chi2 = 1055.61$, $df = 358$, $p < 0.01$), an overall evaluation of the fit can be based on multiple indicators, such as Goodness of Fit Index (GFI), Non-normed Fit Index (NNFI), Comparative Fit Index (CF), and Root Mean Square Error of Approximation (RMSEA). While GFI and NNFI may underestimate the fit for small sample sizes (Bollen, 1990; Ullman, 2001), CFI is robust to sample size (Bentler, 1990). The overall evaluation indicates that the data fit the model quite well, justifying further interpretation.
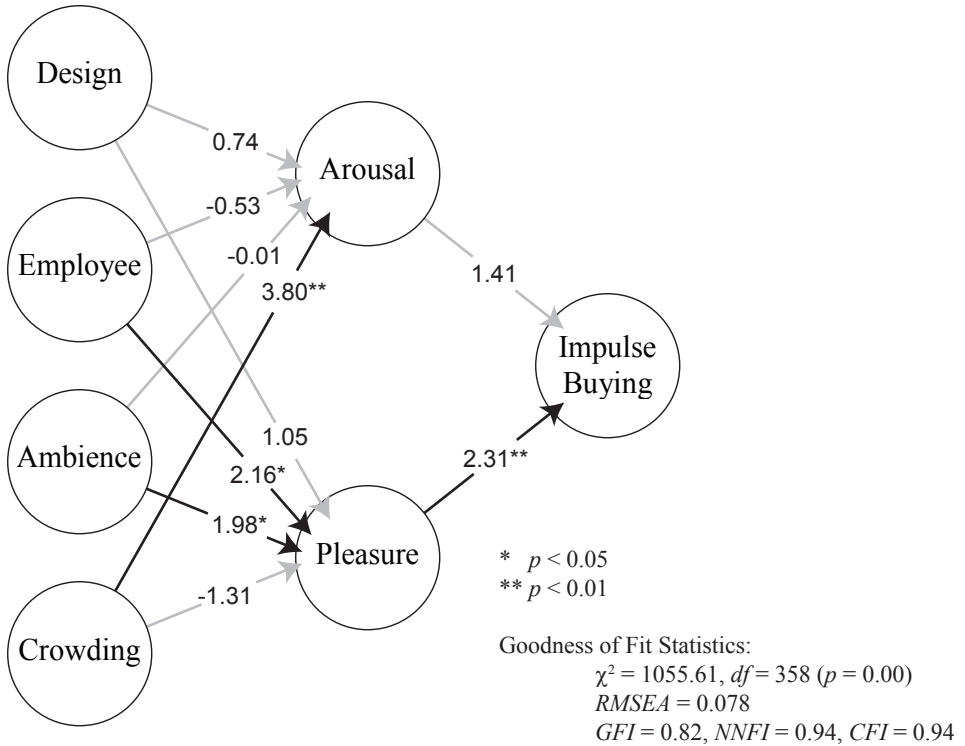
Figure 2.
Structural Equation Model Results for Complete Data.

The first part of the model suggests that environment cues have a significant influence on the emotional states of adult Generation Y consumers in the store. Specifically, pleasure experienced in the store is influenced by employee and ambient cues, while arousal is affected only by crowding. Employee and ambient cues have a significantly positive influence on pleasure, with a *t* value of 2.16 and 1.98 respectively. That is, a positively perceived employee cue contributes to the consumer's pleasure experienced in the store. Similarly, positively perceived ambient cues also contribute to pleasure. The crowding factor has a significantly positive influence on arousal with a *t* value of 3.80. Therefore, Hypotheses 1 and 2 are supported, indicating that adult Generation Y consumers' perceptions of store environments significantly influence their emotional states in these stores.

The second part of the model suggests that there is a strong causal relationship between the emotional states of adult Generation Y consumers and their impulse buying behavior. The pleasure experienced in the store positively contributes to the level of impulse buying. In other words, a consumer who experiences pleasure or enjoyment in the store will be more likely to buy more items on impulse. Therefore, Hypothesis 3 is supported. However, no significant relationship can be found between arousal and

impulse buying; therefore, Hypothesis 4 is not supported. This unexpected result will be further examined and explained later in this paper.

In general, the relationships proposed in the S-O-R model are supported when this model is applied to impulse buying behavior for adult Generation Y consumers. These consumers' perceptions of store environments affect their emotional states in stores, which in turn influence their impulse buying behavior.

To test the effect of a moderating factor on the relationship between environment cues and emotional states, the sample was split into two groups using a moderating factor. Then, a path analysis was employed to test the relationship between the environment cues and emotional states for each group.

For Hypothesis 5, regarding the effect of trait arousability, the sample was split using the total score of the Trait Arousability Scale (TAS). The path analysis employed in each group generated different relationships between environment cues and emotional states, as shown in Figures 3 and 4. For individuals with a low TAS score, the crowding factor was found to be the only environment cue that influences emotional states: it significantly contributes to the individual's arousal, but significantly reduces the pleasure experienced in the store. On the other hand, for individuals with a high TAS score, the crowding factor has a similar effect on arousal as for the individuals with low TAS scores, but it does not have any influence on the pleasure experienced in the store. Instead, pleasure is significantly influenced by ambient cues. Therefore, Hypothesis 5 is supported, indicating that personality traits such as arousability can have a moderating effect on the relationships between store environments and emotional responses to those environments.

For Hypothesis 6, regarding the moderating effect of situational factors on the relationship between environment cues and emotional states of adult Generation Y consumers, the sample was split into two groups, with one group consisting of those respondents that experienced time pressure when in the store and the other group composed of those respondents that experienced no time pressure. The path analysis for each group generates quite different results, as shown in Figures 5 and 6. For those individuals who did not have any time pressure while in the store, two environment cues, including employee and ambience, have a significant influence on the pleasure experienced in the store. The crowding factor contributes to the level of arousal, but has no influence on the level of pleasure. However, for those individuals under time pressure, no relationship exists between environment cues and emotional states. But it should be noted that the model fit for this sub-sample is not good, which can be explained by the small sample size. Overall, however, Hypothesis 6 is also supported, suggesting that situational factors such as time pressure have a moderating effect on the relationships between store environment and emotional states.

An additional path analysis was conducted to examine the relationship between emotional states and impulse buying behavior for each time perception group. Although no relationship exists between arousal and impulse buying in the model developed with the complete data set, this analysis shows that without time pressure, impulse buying is significantly influenced by both the arousal and pleasure experienced in the store, as both arousal and pleasure are positively contributed to the level of impulse buying in the store.
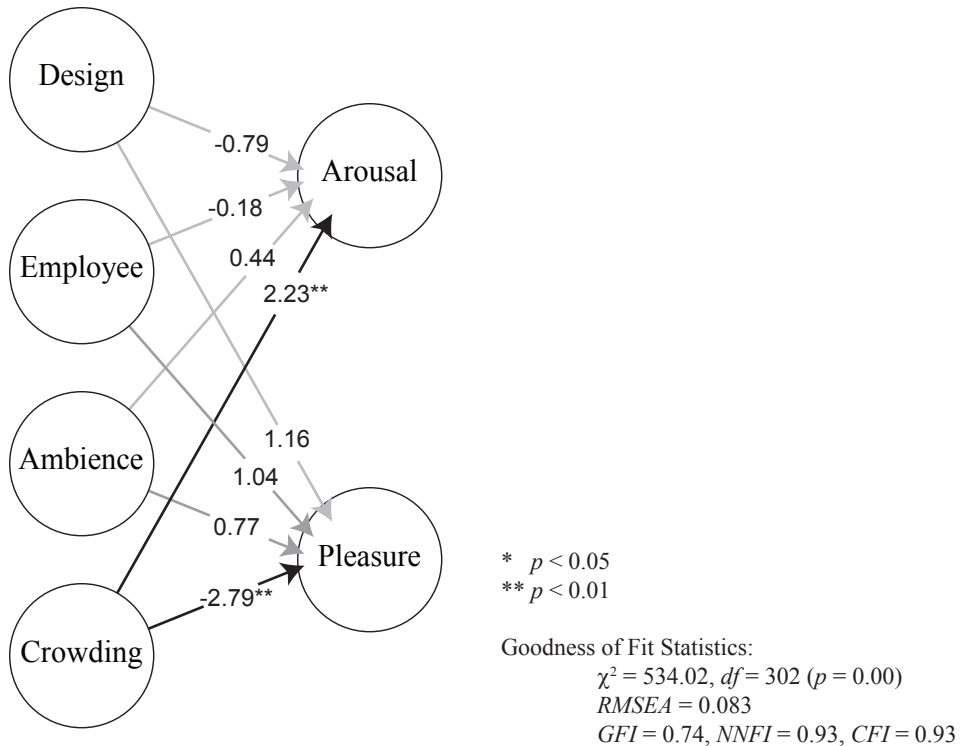
Figure 3.
Structural Equation Model Results for Individuals with Low TAS Score.

Discussions and Implications

In this study, the S-O-R model developed by Mehrabian and Russell (1974) was used to study the impact of store environment on the impulse buying behavior among adult Generation Y consumers. This specific market segment was chosen for this study due to the growth in the spending power of this group in the marketplace and their spending patterns, such as the high likelihood of compulsive and impulse buying. This study indicates that store environments do have a significant influence on adult Generation Y consumers' emotional states, which in turn influence their impulse buying behavior. This study also indicates that there is a high level of impulse buying (65%) among the surveyed adult Generation Y consumers.

The results of this study suggest that employee and ambient cues have a significant positive influence on pleasure. Similar results are found in the study conducted by Baker et. al. (1992). This current study also indicates that arousal among adult Generation Y consumers is positively affected by the level of crowding in the store. That is, their feelings of alertness and excitement tend to increase in a crowded store environment. These results are consistent with previous studies (Banziger and
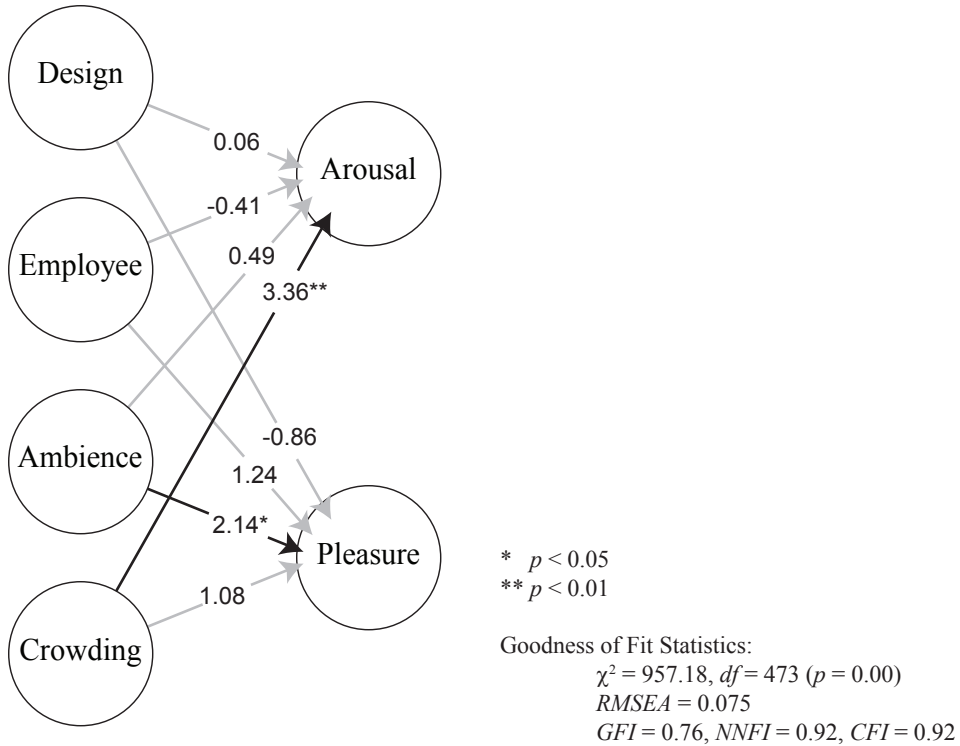
Figure 4.
Structural Equation Model Results for Individuals with High TAS Score.

Simmons, 1984; Web, Worchel, and Brown, 1986). Therefore, to create an enjoyable experience for these customers, retailers that target this group could work to improve the ambience of the store by employing the lighting, scents, and colors suitable to their clientele and the store's image. Friendly, professional, and helpful employees are also important in creating an enjoyable experience for customers. Activities such as sales may be used to create excitement in the store.

The above relationships between store environment cues and adult Generation Y consumers' emotional states are moderated by certain personal and situational factors. For individuals with a low arousability score, who can be considered "stimulus screeners," the crowding factor is the only variable that has a significant influence on both arousal and pleasure; while a crowded environment enhances the level of arousal, the pleasure experienced in the store tends to be reduced. This result is consistent with the study from Hui and Bateson (1991), which also notes that a crowded service environment reduces consumers' pleasure. Considering the negative influence of crowding on the pleasure of stimulus screener consumers, retailers may need to control the level of crowding during high-traffic events such as sales activities to avoid driving these customers away from the store. For respondents with a high score of arousability
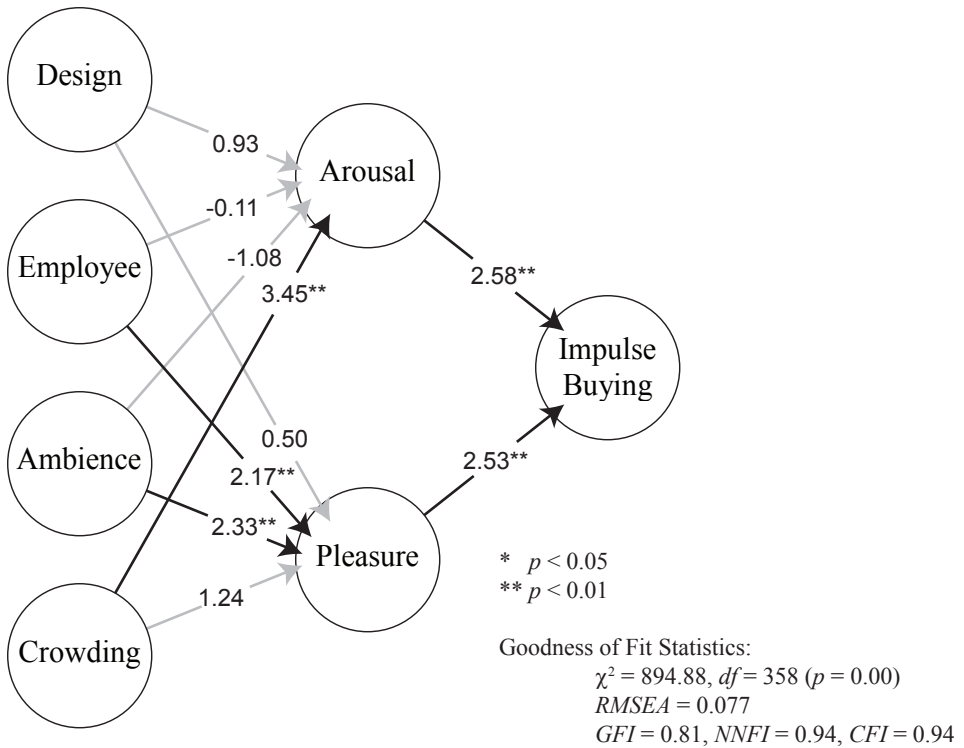
Figure 5.
Structural Equation Model Results for Individuals with No Time Pressure.

("stimulus seekers"), arousal is influenced by the crowding factor, but pleasure is influenced by the ambient factor.

The time pressure perceived by the respondents while in stores is another moderating factor studied in this research. When no time pressure is experienced, consumers are able to explore the store as much as they desire. A similar relationship between store environment and emotional states exists for this sub-sample as for the complete sample. However, when the consumer experiences time pressure while in the store, no significant relationship exists between the store environment and emotional states. Those consumers under time pressure appear to be "immune" to the influences of the store environment. An advantage of this immunity is that retailers that cater to these types of consumers do not need to worry about the negative influences of store environments on customers' feelings. However, at the same time it is also difficult for retailers to have a positive impact on these customers by changing store environments. One suggestion would be to create an environment or atmosphere which would downplay the time pressure that consumers may feel in the store. A possible topic for future research could be the relationship between store environment cues and the perception of time pressure.
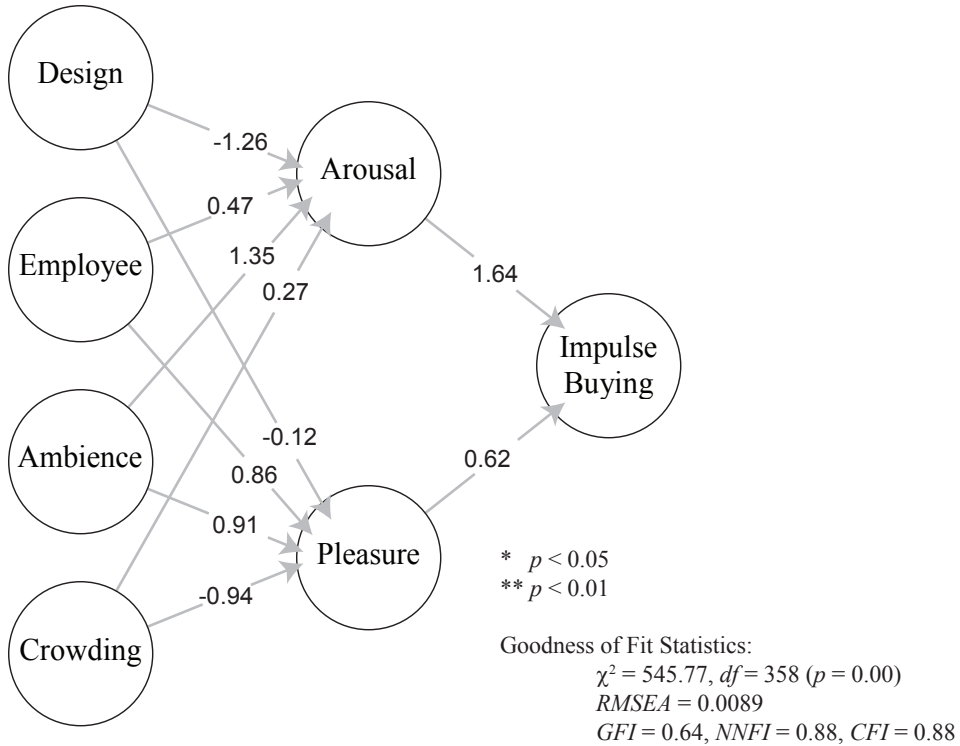
Figure 6.
Structural Equation Model Results for Individuals with Time Pressure.

A significant and positive relationship exists between pleasure and the level of impulse buying: when an individual experiences pleasure in a store, they tend to buy more items on impulse. This relationship is consistent with the relationships that have been found between pleasure and other shopping behaviors such as time and money spent in stores in previous research (Baker and Levey, 1992; Donovan and Rossiter, 1982; Kaltchev and Weitz, 2006). While in this research, pleasure has a significant influence on impulse buying by adult Generation Y consumers, no significant relationship can be found between arousal and impulse buying. As noted in Donovan and Rossiter (1982), the S-O-R model (Mehranian and Russell, 1974) hypothesizes that arousal interacts conditionally with pleasure. Donovan and Rossiter (1982) suggested that in a pleasant retail environment, arousal emerges as a significant predictor of certain shopping behaviors, such as time spending in the store. Kaltcheva and Weitz (2006) even proposed that the relationship between arousal and shopping behavior is mediated by pleasure, and the relationship between arousal and pleasure is moderated by the motivational orientation of consumers. In the results of this study, a split-group analysis by perceived time pressure shows that when the consumer does not experience time pressure, there is a significant and positive relationship between arousal and impulse buying; the environment-induced arousal level enhances impulse

buying by adult Generation Y consumers. This suggests that the relationship between the level of arousal and impulse buying is moderated by an individual's shopping situation. This result provides support for promotional activities that attempt to stimulate consumers' levels of arousal as a way to enhance their tendency to buy items on impulse.

In summary, this study suggests that the S-O-R model from Mehrabian and Russell (1974) is an applicable method that can be used to study the influence of store environments on consumer impulse buying behavior. This study also contributes to the literature by providing evidence to support the moderating effects of personal and situational factors on the relationships between store environments and emotional states of consumers in stores. Future studies should include additional personal and situational factors to study their possible moderating effects.

This current research only interviewed adult Generation Y consumers that were shopping in 4 shopping malls in two Midwestern states. Consumers from other geographic locations may present a different profile regarding the influence of store environments on buying behavior. Stores in shopping malls are also more homogeneous when compared to other types of retailers, such as grocery stores and free-standing discount stores; future studies could sample more diverse stores by including both mall-based and non mall-based retailers.

Acknowledgements

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