How Customer Shopping Motivation Influences Perceived Design of the Retail Environment

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Introduction

Previous research shows that the decisions retailers make about the retail environment influence the amount of time customers spend in retail stores and the total amount of money spent in the retail store (Turley & Milliman 2000). One recent example of a retailer’s efforts to influence customers through the retail environment is Walmart’s Project Impact. In 2009, Walmart embarked on a five year plan to remodel seventy percent of its stores (Gregory 2009). Based on feedback from customers, Walmart sought to change several aspects of the retail environment, including reducing clutter, reducing crowding, wider aisles, clearer sight lines, brighter stores, better layout and a more logical grouping of merchandise (Gregory). Even though Walmart developed Project Impact based on feedback from customers, the initiative is now seen as a failure (Dawson 2011). Shortly after initiating the changes, Walmart experienced two years of negative same store sales while competitors experienced same store growth (Dawson). Some retail analysts believe that a cluttered and crowded store is interpreted by customers as having more bargains (Dawson), so the changes to Walmart’s retail environment may have changed customer’s assessments of Walmart’s pricing. This practical example mirrors insights gained from academic research. Retail environment researchers have recently begun to research customer’s perceptions of the holistic retail environment versus single atmospheric elements such as music or scent (Baker et al 2002). Retail environment researchers acknowledge that segmentation variables may influence consumer’s perceptions of the retail environment (Turley & Chebat 2002). One potential segmentation variable is consumer shopping motivation. Only one study examines the influence a consumer’s innate shopping motivation has on perceptions of the retail environment and subsequent behavior (Baker & Wakefield 2012). Perhaps the reason for Walmart’s surprising Project Impact results is due to the types of customers that shop at Walmart. This leads to the following research questions, (1) Do customers with different shopping motivations perceive retail environments differently? If so, how? (2) How do customer’s perceptions of retail environment design influence customer’s emotional states of pleasure and arousal?
Within the retail environment literature, there is an abundance of research that supports the premise that environmental stimuli such as music and scent influence shopper behaviors such as sales, time spent in store and approach-avoidance behaviors (Turley & Milliman). Until the early 2000s, most retail environment researchers examined individual variables in isolation (Baker et al 2002). Baker and colleagues (2002) were one of the first to examine multiple atmospheric elements simultaneously. These authors examine customer’s perceptions of employees, design and music (Baker et al 2002). Several authors have examined both music and scent, sometimes including other variables (Mattila & Wirtz 2001, Morrison et al 2011, Babin et al 2004). Two studies examine how a customer’s shopping motivation influences perceptions of the retail environment (Baker & Wakefield, Kaltcheva & Weitz 2006). One study finds that a customer’s overall shopping motivation influences their perceptions of crowding in retail environments (Baker & Wakefield). The other study manipulates customer’s shopping motivation and finds that shopping motivation moderates the relationship between arousal and pleasantness (Kaltcheva & Weitz).

In their seminal article, Turley and Milliman identify fifty-seven different atmospheric variables that have the potential to influence shopper behaviors. However, the vast majority of research on the retail environment is conducted on just two of these variables—music and scent. Recently, several studies (Babin et al 2004, Baker et al 2002, Jang & Namkung 2009, Mattila & Wirtz, Morrison et al, Rayburn & Voss 2013) attempt to study multiple retail environment variables simultaneously. However, there is little consistency in the variables studied or the measures used. Two studies examine the influence of a customer’s shopping motivation on perceptions of the retail environment (Baker & Wakefield, Kaltcheva & Weitz). However, one study examines one dimension, social shopping motivation, of a customer’s overall innate shopping motivation (Baker & Wakefield), while another manipulates a shopper’s situational shopping motivation (Kaltcheva & Weitz). To complicate matters further, shopping motivation is examined as both an independent variable (Baker & Wakefield) and as a moderating variable (Kaltcheva & Weitz). The proposed study seeks to fill two gaps. First, to examine if and how customers with different shopping motivations perceive retail environments differently. Second, to examine how design perceptions of the retail environment influence customer’s emotional states of pleasure and arousal.

Literature Review and Hypotheses Development

Mehrabian-Russell stimulus-organism-response framework

The most commonly used theory in atmospherics research is Mehrabian and Russell’s stimulus-organism-response framework (1974). This theory suggests that environmental stimuli influence emotional states such as pleasure, arousal and dominance and in turn, these emotional states influence an individual’s approach or
avoidance behaviors (Mehrabian & Russell). Donovan and Rossiter (1982) specifically test this theory in retail environments. These authors find that Mehrabian and Russell’s emotional state of dominance does not apply to retail environments (Donovan & Rossiter). In addition, the emotional state of pleasure strongly influences approach-avoidance behaviors, but the emotional state of arousal only positively influences approach-avoidance behaviors when the emotional state of pleasure is already present (Donovan & Rossiter). Bitner (1992) expands the Mehrabian-Russell framework in several ways. Two of these additions are particularly pertinent to the present study. First, Bitner notes that researchers should examine customer’s holistic perceptions of business environments. Second, Bitner proposes that personality traits and tendencies moderate the relationship between perceptions of the business environment and internal responses such as emotions.

**Conceptual model**

The conceptual model is shown in Figure 1. The independent variables are two different innate shopping motivations. While Bitner does not use the terms shopping motivation, a customer's shopping motivation is an innate, relatively stable trait of a person. In contrast to Bitner's proposition that these types of traits moderate the relationship between perceptions of the retail environment and internal responses such as emotion, the current study hypothesizes that a customer's shopping motivation directly influences perceptions of the retail environment. The proposed study examines customer's perceived design of the retail environment. Similar to Bitner, perceptions of the retail environment are hypothesized to influence the emotional states of pleasure and arousal, which will in turn influence approach/avoidance behaviors. Due to the overwhelming support for a relationship between emotional states (pleasure and arousal) and approach/avoidance behaviors in the literature, these relationships will not be empirically tested in the current study.

**Figure 1: Conceptual Model**
Shopping motivation

For the purposes of this study, shopping motivation is defined as an individual’s predisposition toward shopping in general. Research suggests that customers have shopping motivations that persist over time (Büttner, Florack, & Göritz 2014), suggesting that shopping motivation is an innate trait. Prior researchers who have sought to identify a typology of shoppers often find that shoppers differ based on utilitarian and hedonic motivations (Arnold & Reynolds 2003, Ganesh, Reynolds & Luckett 2007, Westbrook & Black 1985). While Westbrook and Black identify six types of shoppers and Ganesh and colleagues identify five types of shoppers, a utilitarian motivation versus a hedonic motivation is prevalent in discussing the differences among the shopping types. For example, Ganesh and colleagues repeatedly use the words reluctant and enjoy to describe the five types of shoppers they identify. Westbrook and Black argue that shoppers act primarily to acquire products (utilitarian motivations) or to provide satisfaction for other needs (hedonic motivations) or some combination of the two. Babin and colleagues (1994) find that customer’s evaluations of shopping experience vary along a utilitarian dimension and a hedonic dimension. Another study examines how a task shopping motivation versus a recreational shopping motivation influences perceptions of hassles and uplifts while shopping (Machleit, Meyer & Eroglu 2005).

Arnold and Reynolds specifically investigate hedonic shopping motivations and identify six hedonic shopping motivations—adventure, social, gratification, idea, role, value. Individuals with an adventure shopping motivation seek stimulation from their shopping experiences. Individuals with a social shopping motivation enjoy shopping with others and socializing while shopping. Individuals with a gratification shopping motivation shop to reduce stress and to treat themselves. Individuals with an idea shopping motivation enjoy shopping to be exposed to current trends and fashions. Individuals with a role shopping motivation enjoy shopping for and finding the perfect item for others. Finally, individuals with a value shopping motivation enjoy finding discounts and bargains while shopping.

Of the six shopping motivations identified by Arnold and Reynolds, two shopping motivations are the most likely to influence perceptions of the retail environment: adventure and gratification. An adventure motivation is defined as an individual’s predisposition toward shopping to seek excitement and adventure (Arnold & Reynolds). Respondents with an adventure shopping motivation describe their trips as searching for suspense, being in a different world and seeking sensory stimulation (Arnold & Reynolds). Certainly, retail environments can stimulate the senses of shoppers. Of the six shopping motivations identified by Arnold and Reynolds adventure shopping motivation has the highest correlation with involvement in the shopping activity, time distortion while shopping and appreciation of the design of the retail environment.
The other shopping motivation of interest in this study is the gratification shopping motivation. A gratification shopping motivation is defined as an individual’s predisposition toward shopping to relieve stress or to treat themselves (Arnold & Reynolds). Respondents with a gratification shopping motivation describe their shopping trips as rewarding, relieving depression, escaping and taking their mind off stressors (Arnold & Reynolds). Retail environments can be designed to help a shopper feel as if they are escaping the stresses of the world. In Arnold and Reynolds article, a gratification shopping motivation has the second highest correlation with involvement in the shopping activity and time distortion while shopping. Gratification shopping motivation is also highly correlated with appreciation of the design of the retail environment.

**Perceived design of the retail environment**

One of the issues in studying the retail environment is there is little agreement among researchers concerning which dimensions should be included in studying the retail environment. Bitner's conceptual framework includes an ambient dimension, a space/function dimension, and a signs, symbols and artifacts dimension. Turley and Milliman identify five categories of retail environment variables: external, general interior, layout and design, point-of-purchase and decoration, and human variables. Baker et al. (2002) empirically test a model that includes social factors, design factors, and ambient factors.

A second issue is there is little agreement in the definitions or conceptualizations used in describing and explaining the different dimensions of the retail environment. For the purposes of this paper, five dimensions of the retail environment are identified: exterior, ambient, design, signs/symbols/artifacts and human. The exterior dimension of the retail environment includes aspects that customers can see prior to entering the retail location including but not limited to the shape of the exterior, areas surrounding the exterior and entrances (Turley & Milliman). The ambient dimension of the retail environment includes background sensory stimuli such as music, scent and temperature (Bitner) that are generally relatively easy to change. The design dimension of the retail environment includes the layout, functionality, and interior design of the retail environment (Bitner). The signs/symbols/artifacts dimension of the retail environment includes orientation aids and point-of-purchase displays. Finally, the human dimension of the retail environment includes other people (both employees and customers) in the environment.

The focus of the present study is customer’s perceptions of the design dimension of the retail environment. While many retail environment studies examine the ambient dimension, which includes music, temperature and scent, ambient variables are very easily changed. For example, music and temperature
can be changed with a flip of a switch. However, layout and design of a retail environment can only be changed by expending significant time and money.

Unfortunately, there is not a clear definition or measurement of perceived design of the retail environment in the literature. Retail environment scholars often define and measure the different dimensions of the retail environment similarly. For example, of the dimensions identified by Bitner, the design dimension is most similar to the dimension she labeled spatial layout and functionality. Bitner discusses spatial layout including the arrangement of furnishing and equipment. However, in developing her propositions, she also mentions aspects such as crowding which is included in the human dimension and orientation aids which are included in the signs/symbols/artifacts dimension.

Similarly, Wakefield and Baker examine the influence of a mall’s physical environment on excitement at the mall and desire to stay at the mall. These authors conceptualize the mall’s perceived physical environment as one construct including ambient, design and layout factors. Since ambient and design dimensions are included in the same construct, it is unclear from this research how each individually influences outcomes such as excitement and staying at the mall. Further, since these authors examine the mall as the unit of analysis, it is unclear whether their findings would hold when examining individual retail stores.

In their review of the literature on the retail environment effects on shopping behavior, Turley and Milliman do not clearly distinguish between the design and ambient dimensions of the retail environment. These authors review a category of the retail environment they label layout and design variables. They include space design and placement of furnishings/equipment in this category. However, these authors also include design variables such as aisle width and flooring in a category labeled general interior variables that is more closely aligned with the ambient dimension.

Baker and colleagues (2002) examine the influence of store employee perceptions, store design perceptions and store music perceptions on store choice criteria. These authors do not offer a definition of store design perceptions but include layout, upscale versus rundown, modern versus traditional, carpeted floors versus tile, width of aisles and restroom cleanliness in their hypothesis development. While customer perceptions of restroom cleanliness likely influence their perceptions of the retail environment, cleanliness and design are distinctively different concepts. Also, in their measurement of the store design perceptions construct, these authors include an item that measures merchandise organization. While organization and design are related, they are also distinct concepts. For example, it is possible for a store to be well designed and be disorganized or to be poorly designed and very organized.
Two studies combine the design and ambient dimensions into one construct. Jang and Namkung find that customer perceptions of a restaurant environment influence customer’s emotions and behavioral intentions. These authors do not differentiate between the different dimensions of the restaurant environment and include elements of both design and ambience in their conceptualization of the perceived restaurant environment. Shukla and Babin (2013) examine the influence of consumer psychographics and store characteristics, including ambience, on shopping value. These authors do not offer a specific definition of ambiance, but the measurement scale for ambience includes design, lighting and music.

Perceived design is defined as the customer’s perceptions of the layout, functionality and interior design of the retail environment. While Bitner conceptualized that personal and situational factors should moderate the relationship between perceptions of the retail environment and emotional states, a direct relationship between shopping motivation and perceptions of the retail environment is more likely. Since shopping motivations are defined here as innate, the customer enters the retail environment with existing goals and motivations. These existing goals influence how an individual customer perceives the retail environment. Baker and Wakefield found that a customer’s shopping motivation directly influenced the customer’s perceptions of the retail environment. Customers with an adventure shopping motivation “often described the shopping experience in terms of adventure, thrills, stimulation, excitement, and entering a different universe of sights, smells and sounds” (Arnold & Reynolds, p.80). Customers with an adventure shopping motivation rated aesthetic appeal higher than customers with any other shopping motivation (Arnold & Reynolds). It is expected that customers seeking thrills and stimulation will have more positive perceptions of the design of the retail environment. Based on these arguments, the following hypothesis is offered:

H1: An adventure shopping motivation is positively related to perceived design.

Arnold and Reynolds found that consumers with a gratification shopping motivation rated aesthetic appeal higher than three of the other shopping motivations they identified. Since customers with a gratification shopping motivation seek to relax or treat themselves, they are likely to appreciate the design of the retail environment. Based on these arguments, the following hypothesis is offered:

H2: A gratification shopping motivation is positively related to perceived design.
Emotional states

In Mehrabian and Russell’s stimulus-organism-response framework, the organism that connects the stimulus to the response is a person’s emotional state. The original framework identifies three emotional states—pleasure, arousal and dominance. However, subsequent research finds that the emotional state of dominance did not apply in retail environments (Donovan & Rossiter). Accordingly, this paper examines the emotional states of pleasure and arousal.

Pleasure is defined as the degree to which the customer feels good, joyful, happy or satisfied in the retail environment (Donovan & Rossiter). The stimulus-organism-response framework suggests that perceptions of the retail environment are positively related to pleasure (Mehrabian & Russell, Donovan & Rossiter, Bitner). While no previous study could be identified that specifically examined the relationship between perceived design and pleasure, two studies have identified a positive relationship between perceptions of the retail environment and pleasure (Michon, Chebat & Turley 2005; Jang & Namkung). It is expected that as customer’s perceptions of layout, functionality and interior design increase, this will lead to an increased amount of pleasure. Based on these arguments, the following hypothesis is offered:

H3: Perceived design is positively related to pleasure.

Arousal is defined as the degree to which the customer feels excited or stimulated in the retail environment (Donovan & Rossiter). The stimulus-organism-response framework suggests that perceptions of the retail environment are positively related to arousal (Mehrabian & Russell, Donovan & Rossiter, Bitner). Several studies have identified relationships between perceptions of the retail environment and arousal (Wakefield and Baker, Chebat & Michon 2003, Morrison et al, Baker & Wakefield). While no previous study could be identified that specifically examined the relationship between perceived design and arousal, it is expected that as customer’s perceptions of layout, functionality and interior design increase the customer will experience arousal, excitement and stimulation. Based on these arguments, the following hypothesis is offered:

H4: Perceived design is positively related to arousal.

Methodology

Proposed sample

The proposed sample will include a minimum of 300 adults from the database of an online panel research firm. Every effort will be made to make sure that the panel
includes customers of various demographic backgrounds including gender, age, race, income level and family status.

**Proposed measures**

Prior to being exposed to the stimulus, the sample will be asked questions about their shopping motivations. Adventure shopping motivation will be measured using a three-item scale (α = .86) previously used by Arnold and Reynolds. Gratification shopping motivation will be measured using a three-item scale (α = .79) previously used by Arnold and Reynolds. All of the shopping motivation items will be measured using a 7-point likert scale anchored by ‘strongly disagree’ and ‘strongly agree’. Table 1 lists the measurement items for adventure shopping motivation and gratification shopping motivation.

After answering the shopping motivation survey questions, the respondents will view multiple pictures of the inside of a retail environment. Respondents will be told to view the pictures and imagine that they are in the retail environment. After viewing the pictures, respondents will answer questions about their perceived design of the retail environment. Respondents will also be asked questions concerning pleasure and arousal. An appropriate existing scale for perceived design could not be identified. Wakefield & Baker measured a construct labeled interior design and décor with a four-item scale (α = .931). However, these authors also measured a separate construct labeled layout with a four-item scale (α = .904). Since design includes layout, this measurement needs to be refined. Baker et al (2002) measured a construct labeled store design perceptions with a three-item scale (α = .76). However, one of the items in this scale measures organized merchandise which is conceptually different than design. Further, the authors mention several other aspects of design (e.g. layout, aisle width) in their hypothesis development that are not included in their measure of design. Several authors (Bitner, Baker, Grewal & Parasuraman 1994, Turley & Milliman) offer conceptual aspects of perceived design that may inform scale development. Several other studies attempt to measure the retail environment holistically and include individual items that measure design in their scales (Yoo, Park & MacInnis 1998, Jang & Namkung, Dennis et al 2012, Rayburn & Voss). These individual items should also be considered for inclusion in a perceived design scale. Shukla and Babin measure a construct labeled ambience with a three-item scale (α = .73). However, one item in the scale measures design. Based on these measurement issues, a robust scale for perceived design needs to be developed. Table 2 lists potential measurement items for this scale.

While several authors have measured both pleasure and arousal, the items used and the reliabilities reported vary greatly (Mattila & Wirtz, 2001; Kaltcheva & Weitz, 2006; Chebat & Michon, 2003). To resolve these inconsistencies, pleasure will be measured using an eight-item semantic differential scale previously used by
Donovan and Rossiter (1982). Arousal will be also be measured using an eight-item semantic differential scale previously used by Donovan and Rossiter (1982). Table 1 lists the measurement items for pleasure and arousal.

**Table 1: Measurement Items**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Adventure shopping motivation</td>
<td>To me, shopping is an adventure. I find shopping stimulating. Shopping makes me feel like I am in my own universe.</td>
<td>Strongly disagree (1) – Strongly agree (7)</td>
</tr>
<tr>
<td>Gratification shopping</td>
<td>When I am in a down mood, I go shopping to make me feel better. To me, shopping is a way to relieve stress. I go shopping when I want to treat myself to something special.</td>
<td>Strongly disagree (1) – Strongly agree (7)</td>
</tr>
<tr>
<td>Pleasure</td>
<td>Contented-depressed Happy-unhappy Satisfied-unsatisfied Pleased-annoyed Relaxed-bored Important-insignificant Free-restricted Hopeful-despairing</td>
<td>7 point semantic differential scale</td>
</tr>
<tr>
<td>Arousal</td>
<td>Stimulated-relaxed Excited-calm Jittery-dull Aroused-unaroused Frenzied-sluggish Overcrowded-uncrowded Wide awake-sleepy Controlling-controlled</td>
<td>7 point semantic differential scale</td>
</tr>
</tbody>
</table>
Table 2: Potential Perceived Design Measures

<table>
<thead>
<tr>
<th>Potential Measure</th>
<th>Source</th>
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<tbody>
<tr>
<td>The design of this store helps me achieve my shopping goals.</td>
<td>Developed based on Bitner (1992)</td>
</tr>
<tr>
<td>The aisles are an appropriate width.</td>
<td>Developed based on Baker et al. (1994)</td>
</tr>
<tr>
<td>The signs used are appropriate</td>
<td></td>
</tr>
<tr>
<td>The mall’s architecture gives it an attractive character.</td>
<td>Wakefield &amp; Baker (1998)</td>
</tr>
<tr>
<td>The mall is decorated in an attractive fashion.</td>
<td></td>
</tr>
<tr>
<td>The overall design of this mall is interesting</td>
<td></td>
</tr>
<tr>
<td>The layout makes it easy to get to the stores you want.</td>
<td></td>
</tr>
<tr>
<td>The layout makes it easy to get to the food areas.</td>
<td></td>
</tr>
<tr>
<td>The layout makes it easy to get to the restrooms.</td>
<td></td>
</tr>
<tr>
<td>Overall, the layout makes it easy to get around.</td>
<td></td>
</tr>
<tr>
<td>Pleasing color scheme</td>
<td>Baker et al. (2002)</td>
</tr>
<tr>
<td>Attractive facilities</td>
<td></td>
</tr>
<tr>
<td>The facility layout allows me to move around easily.</td>
<td>Jang &amp; Namkung (2009)</td>
</tr>
<tr>
<td>The interior design is visually appealing.</td>
<td></td>
</tr>
<tr>
<td>Colors create a pleasant atmosphere.</td>
<td></td>
</tr>
<tr>
<td>Lighting creates a comfortable atmosphere.</td>
<td></td>
</tr>
<tr>
<td>How does this mall rate on . . . welcoming atmosphere?</td>
<td>Dennis et al. (2012)</td>
</tr>
<tr>
<td>How does this mall rate on . . . general layout?</td>
<td></td>
</tr>
<tr>
<td>The [store x] has nice design.</td>
<td>Shukla &amp; Babin (2013)</td>
</tr>
<tr>
<td>Comfortable-uncomfortable (semantic differential)</td>
<td>Rayburn &amp; Voss (2013)</td>
</tr>
<tr>
<td>Charming-obnoxious (semantic differential)</td>
<td></td>
</tr>
<tr>
<td>Displeasing-pleasing</td>
<td></td>
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<tr>
<td>Appealing-Unappealing</td>
<td></td>
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</table>

Proposed analysis

Structural equation modeling will be used as the analysis technique. First, a measurement model will be analyzed using confirmatory factor analysis. Next, a structural model will be used to test the hypotheses.
References


**Keywords:** Customer shopping motivation, retail environment, atmospherics, servicescapes

**Relevance to Marketing Educators, Researchers and Practitioners:** This paper investigates how innate shopping orientations influence consumers’ perceptions of the retail environment. In addition, it offers potential measures to be used in the scale development of perceived design of the retail environment.

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**TRACK:** Retailing