The Role of Physical Environment in Consumers’ Relationship with a Retail Outlet Offering a Regional Product

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Abstract
This paper reports the results of a quantitative study that examined the effect of a store’s physical environment on consumers’ relationship with a retail outlet. The results retained most of our research hypotheses. We found that a design with references to regional products positively influences consumer attachment to the point of sale. However, atmospherics have no significant impact on loyalty to the point of sale.

Key words: Retail; Atmospherics; Regional product; Design; Brand loyalty; Commitment; Attachment

INTRODUCTION
In the retail sector, promoting a good differentiation strategy depends more and more on creating a lasting relationship with customers. To this end, in order to maintain a good relationship with the consumer, retail outlet managers seek to create a specific atmosphere to the purchase place that combines the different variables of physical environment like music, colors, design, lighting, scents, etc. (Lemoine, 2003; Daghrir & Frikha, 2010).

In this line of thinking, retailers always look ahead to improve the environmental factors within the point of sale. This leads us to claim that shelved products, whatever their quality, are not enough to sell optimally. Therefore, we can say that atmospheric variables (exterior, general interior, decor and furnishings, design and layout and staff) are stimuli that may influence consumers’ shopping behavior in such a way that they create a response like first choosing the store, and then acquiring the product (Turley & Miliman, 2000).

Thus, given the importance of these environmental stimuli, several studies examined their influence on consumer behavior. Indeed, several experiments were conducted to study the role of music (Miliman, 1982; Rieunier, 2000; Sibérl, 2000; Ben Dahmane Mouelhi & Touzani, 2003), visual ambience (Kwallek, Lewis, & Robbin, 1998; Backer, Grewal, & Levy, 1992; Backer, Grewal, & Parasuraman, 1994; Spies, Hesse, & Loesch, 1997; Titus & Everett, 1995; Divard & Urien, 2001) and also other components (Dion-Le Mee, 1998; Lemoine, 2003; Ben Dahmane Mouelhi, 2008).

According to previous research, some atmospheric variables affect behavior, others customer attitude while others act on the two dimensions of loyalty. Accordingly, it can be claimed that atmosphere helps to build up customer brand loyalty.

Subscribing to these assumptions, in this study we propose to examine the role of the physical environment of a point of sale on consumer decisions while highlighting the influence of a store design promoting a regional product.

In this paper, first we will present our theoretical framework and research hypotheses. Then, we will present the research methodology. Subsequently, we present the results. Finally, in conclusion, we will discuss the results, while presenting the limitations and future research.

1. THE LITERATURE REVIEW
1.1 The Physical Environment of a Point of Sale
Atmosphere is a concept that has been defined by several
researchers. Indeed, the concept has been the subject of several studies. The first use of this marketing concept is attributed to Kotler (1973, 1974). He considers atmosphere as “efforts to design a shopping environment able to produce specific emotional effects among buyers which may increase their likelihood of purchasing” (Themessek & Mouelhi, 2009). That said, from the start, we must highlight the importance of taking into account emotions felt in a store (Litchlé & Plichon, 2009).

Recently, other researchers proposed more accurate definitions that highlight the components of atmosphere. For Yoo, Park, and McInnis (1998), atmosphere consists of design, light, air quality, interior design and music. On the other hand, for Daucé and Rieunier (2002), atmosphere consists of items related to the physical (music, scents, colors and lights) and social environment (style of salespeople and customers, crowd management) of the store.

Ultimately, we can say that atmosphere consists of all the intangible elements of the store that promote the product.

Many studies pointed to the positive influence of the environment of a selling point on customers’ emotional states and the time spent in stores. However, studies in the French context, measuring the impact of manipulating sensory stimuli on consumers’ purchasing behavior in a point of sale, could not determine significantly the influence on the purchase amount (Filser, 2001).

According to Miliman (1982), there is a relationship between consumer behavior in terms of their movement speed, time spent, amount spent and the tempo of the musical stimulus to which they are exposed. Thus, tempo acts on the behavioral dimension of loyalty. In addition, background music acts, through manipulating the tempo, genre and volume, on triggering positive emotions such as good humor and fun, thus enhancing customer attitudinal loyalty (Areni & Kim, 1993).

Sibérali (1994) could not find a significant effect of music tempo on the amount of total purchases. However, the author found a significant effect of music genre on the number of and the amount of unplanned purchases. In the same vein, Rieunier (2000) assumes that neither tempo manipulation, nor music reputation, have a direct effect on the final purchase behavior of individuals.

As for the visual atmosphere, it also promotes behavioral as well as attitudinal loyalty. Indeed, several researchers found that warm colors create greater stimulation than cool colors (Kwallek, Levis, & Robbin, 1998). Thus, colors influence the nature and the rate of purchase. They therefore promote behavioral loyalty. In addition, lighting was the subject of several studies (Backer, Grewal, & Levy, 1992; Backer, Grewal, & Parasuraman, 1994). These authors showed that lighting acts not only on behavioral loyalty but also attitudinal loyalty. However, Daucé (2000) shows no influence of odors on the amount of purchases or the number of items purchased.

Design also attracted the interest of several researchers who pointed to its strong influence on both affective responses, in particular mood and pleasure (Spies, Hesse, & Loesch, 1997) and behavioral responses such as time spent in the store (Titus & Everett, 1995; Lemoine, 2002).

Lombart and Pinlon (2006) suggest that the relationship between the different environmental factors (atmosphere, design and social environment) and the amount of purchases made is not significant. They therefore confirm the results of previous research that found no relationships between the environment of a point of sale and consumer purchasing behavior (Sibérali, 1994; Daucé, 2000; Rieunier, 2000). However, other studies conducted in the US showed a significant statistical relationship between sales and the store environment (Tureley & Milliman, 2000).

Atmospheric factors may have a strong evocative power (of a country, of a product category, a universe, etc.) (Daucé & Rieunier, 2002). Then, a customer, exposed to the same atmospheric factor, is attracted to a specific product category. Under this perspective, North, Hangreaves, and Mc Kendrick (1999) conducted a study and found that there is a significant relationship between the geographic origin of the music played in a supermarket and choice of products. According to these authors, the geographic origin of music activates in memory thoughts related to the country and influences individuals’ choices. Thus, evocation generated by the atmosphere is often used by means of playing regional music or disseminating smells in supermarkets during theme weeks (Daucé & Rieunier, 2002). Thus, a change in music or smell, if it remains within acceptable limits, is not enough to push the customer to the purchase act. Nevertheless, it is likely that the atmosphere influences purchasing in the long-run: the customer will easier become loyal to the brand that pleases them.

In marketing, most research has focused on the effect of physical environment on consumer (Kotler, 1974; Daucé & Rieunier, 2002). In a more recent way, theory on the concept of atmosphere started to consider its influence on the occupants of a place, both consumers and employees (Rieunier, 2000; Themessek & Mouelhi, 2009).

Referring to the above-cited assumptions, we formulate the following hypotheses:

H1: playing regional music positively influences commitment of local consumers to the point of sale.

H2: playing regional music positively influences loyalty of local consumers to the point of sale.

H3: a design promoting references to regional products significantly influences consumer attachment to the point of sale.

1.2 The Mediating Role of Commitment

Several studies have investigated the relationship between commitment and consumers’ behavioral responses. Many researchers assume that commitment goes beyond a positive attitude towards the brand; it is an essential component of long-term loyalty (Morgan & Hunt, 1994; Meyer & Allen, 1991).
The concept of commitment was defined as “the will to pursue a relationship with a supplier or a brand” (Dess, Nicholson, & Buisson 2009). It represents the psychological attachment of the customer to their partner (Morgan & Hunt, 1994; Fullerton, 2003; Bansal, Irving, & Taylor, 2004). This concept also explains the relationship between consumers and brands (Verhoef, Frances, & Hoekstra, 2002; Sharma & Petterson, 2000). As such, commitment can be said to be at the center of relationship marketing. It is a key concept that ensures the continuity of a relationship. In the same line of thinking, Kaabachi (2007) argues that commitment is “an essential ingredient of relation marketing for the stability and sustainability of any exchange relationship”.

Drawing on the studies cited above, we retain the following hypothesis:

H4: the stronger consumer commitment to the brand, the more they will be loyal.

The literature found that commitment plays a mediating role in the relationship between the consumer and the brand (Frisou, 1998; N’Goala, 2003; Aurrier, Benavent, & N’Goala, 2001). In this study, our research model starts with the assumption that the physical environment of a store promotes commitment, and that commitment to the store promotes loyalty to it. Then, the effect of the physical environment of the point of sale on loyalty is indirect; it is mediated by commitment (the mediating variable). Thus, in our research model, commitment mediates the effect of physical environment on loyalty to the point of sale. This leads us to formulate the following hypotheses:

H5: Commitment mediates the effect of physical environment on loyalty to the point of sale.

H5a: Commitment mediates the effect of regional music on loyalty to the point of sale.

H5b: Commitment mediates the effect of a design promoting regional products on loyalty to the point of sale.

Dimensions of commitment are cognitive (satisfaction with product performance) and affective (loyalty) (Lacoeuilhe, 2000; Desse, Nicholson, & Buisson, 2009). Therefore, attachment seems like an important determinant of commitment (Chaudauri & Holbroock, 2001, 2002; Cristau, 2003; Thomson, McInnis, Park, 2005). We will develop in what follows the concept of brand attachment.

1.3 Brand Attachment
Attachment is a concept that has been widely studied. Despite the contributions of recent research (Lacoeuilhe, 2000; Cristau, 2001, Heilbrunn, 2001), several researchers confuse the concept of attachment with the affective dimension of commitment (Gruen, Summers, & Acito, 2000; Meyer & Allen, 1991; Fullerton, 2003, 2005). Others see it as a concept which contributes to the psychological dimension of brand or supplier loyalty. Accordingly, there is still confusion between the construct “attachment” and its consequences (Mills & Roux, 2009). However, Lacoeuilhe (2000); Cristau (2001) and Heilbrunn (2001) found a content validity to the construct (Belaid & Lacoeuilhe, 2007).

Thus, the concept of attachment differs from other forms of affective reactions such as emotion, preference and attitude (Lacoeuilhe, 2000; Roux & Magnoni, 2005).

Marketing research also found differences between brand loyalty and other concepts such as involvement, commitment or loyalty (Poncin & Desse, 2008). Indeed, involvement denotes a product category while attachment often refers to a particular brand (Belaid & Lacoeuilhe, 2007). In addition, attachment differs from loyalty, in particular brand commitment. Thus, the concept of attachment feeds commitment. However, a person can be attached to a brand without an observed loyalty behavior (Pincon & Desse, 2008, Belaid & Lacoeuilhe, 2007). Similarly, Amine (1994) found that in consumer behavior research, commitment is often referred to attachment while considering that these two concepts are distinct. Thus, and following these assumptions, we can say that attachment, loyalty and commitment are distinct constructs (Pincon & Desse, 2008).

If the literature is beginning to understand the concept of brand loyalty, to our knowledge, only two studies have examined the concept of brand attachment (Pincon & Desse, 2008; Desse, Nicholson, & Buisson 2009). However, it may be a relevant concept to improve the position of affective components that can act on the consumer-brand relationship. Indeed, the concept of brand attachment should explain better consumer loyalty and commitment behavior towards retailers.

In this study, it seemed necessary to establish a distinction between the brand and the point of sale and apply the concept of attachment to the point of sale (Cristau & Lacoeuilhe, 2008). Like the producer, the retailer shows also interest in customer loyalty.

Thus, by referring to the aforementioned studies, we propose the following hypotheses:

H6: the more the consumer shows an attachment to a point of sale offering regional products, the more they will show commitment.

Figure 1
The Research Model
After presenting our theoretical framework and research hypotheses, we now move to test their validity. In what follows, we will present the methodology of our study, the results and their interpretation.

2. RESEARCH METHODOLOGY

To test our research hypotheses, we conducted a face-to-face questionnaire-based survey of 260 “Monoprix”, “Magasin General” and “Carrefour Market” customers.

2.1 Choice of Measurement Scales

2.1.1 The Physical Environment of the Point of Sale

To measure the physical environment of a selling point, we referred to Baker (1986), Baker, Grewal, and Parasuraman (1994), Greenland and McGoldrick (1994) and Plchon (1999). The measurement scale assesses factors relating to the store design (arrangement of the point of sale, movement in the outlet, its layout and access to offered products). In the study of Lombart and Pinlon (2006), the reliability of the point of sale environment is satisfactory; 0.77 for the design dimension.

2.1.2 Commitment

we used the scales of Frisou (2000), Allen and Meyer (1991) and N’Goala (2003) to measure commitment to the point of sale. In the study of Kaabachi (2007), reliability of commitment to the point of sale dimension is satisfactory, 0.88.

2.1.3 Attachment

Given the large number of studies on the determinants of loyalty, the literature provides many measurement scales. We chose the one proposed by Lacoeuilhe in his study of brand attachment (Lacoeuilhe, 2000; Lacoeuilhe & Belaid, 2007; Lacoeuilhe & Cristau, 2008). The reliability of this scale has been validated repeatedly.

2.1.4 Loyalty to the Point of Sale

To measure consumers’ future behavioral intentions towards the point of sale, we used a scale consisting of 4 items inspired by Bloemer and Ruyter (1998) and Themessuk and Ben Dahmen (2009), Boulding, Kalra, Staelin, and Zeithaml (1993) and Najar, Najar, and Zaeim (2011). We asked respondents to specify a specific probability, on a 5-point Likert scale (very unlikely, unlikely, uncertain, likely and very likely). Like Zeithaml, Berry, and Parasuraman (1996), we assume the unidimensionality of this scale.

3. DISCUSSION OF THE RESULTS

To test our hypothesis, we used the structural equations’ method by maximum likelihood using the AMOS software (Akrou, 2010). The results are presented in Table 1. The various indices calculated are very satisfactory and allow us to conclude to a good fit: The minimum chi-square is acceptable (below 5, i.e.3). The GFI, CFI, TLI, NFI indices indicate good overall quality measures. RMR is 0.042, while RMSEA is 0.071, indicating a reasonable fit quality.

Table 1
Model Parameters and Global Fit

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relationship between constructs</th>
<th>t-</th>
<th>p-</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Commitment → Attachment</td>
<td>3.076</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>H2 Commitment → Loyalty</td>
<td>2.381</td>
<td>0.022</td>
<td></td>
</tr>
<tr>
<td>H3 Design → Attachment</td>
<td>2.236</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>H4 Commitment → Loyalty</td>
<td>2.291</td>
<td>0.022</td>
<td></td>
</tr>
<tr>
<td>H5 Commitment → Attachment</td>
<td>3.076</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

3.1 Test of the Direct Effects

In Table 1, the direct effect test of a regional atmosphere on consumer commitment shows a significant relationship (t = 2.458, p = 0.014), which retains hypothesis H1.

However, the direct effect test of a regional atmosphere on loyalty shows a non-significant relationship. Indeed, playing regional music has no significant effect on customer loyalty (t = 1.705 <1.96; p = 0.088> 0.05). This finding then rejects hypothesis H2. These results confirm those of Filsier (2001) who found no significant effect of the physical environment of the point of sale on the purchase amount. Similarly, Rieuiner (2000) indicate that tempo manipulation and music reputation do not have a direct influence on the final purchase behavior of individuals.

However, the results reject those of Miliman (1982) and Areni and Kim (1993), which showed respectively that background music acts on the behavioral and the attitudinal dimension of loyalty.

The results in Table 1 show that the relationship between a design promoting regional products and the customer commitment to the point of sale remains significant (t = 2.236, p = 0.025). Accordingly, a design promoting references to a regional product has a positive and a significant effect on customer commitment to the store. This therefore retains hypothesis H3.

Several researchers pointed to the strong effect of the concept “design” on both affective responses, mood and pleasure, (Spies, Hesse, & Loesch, 1997) and behavioral responses (Titus & Everett, 1995). This confirms our results, which can be explained by the fact that some
consumers use their emotions to choose products and make the final purchase decision.

Analysis of the results confirms the assumption that a consumer committed to a point of sale may be loyal. The significant effect of commitment on loyalty (t = 2.291, p = 0.022) retains hypothesis H4.

As indicated in Table 1, the relationship between attachment and commitment is significant (t = 3.076, p = 0.002). The more consumers are attached to a point of sale offering regional products, the stronger their loyalty will be. Hypothesis H6 is retained. The results of our study confirm those of Chaudauri and Holbrook (2001, 2002), Cristau (2003) and Thomson, McInnis, and Park (2005), who found that attachment is an important determinant of commitment.

### 3.2 Testing the Mediating Effect of Commitment on the Relationship between Physical Environment and Loyalty to the Store

We will follow the procedure recommended by Baron and Kenny (1986). We will test that design and atmosphere (variable X) have a significant effect on brand loyalty (Y variable) via commitment (mediating Variable). First, we test the relationship between the independent variables and the dependent variable.

<table>
<thead>
<tr>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment ← Regional atmosphere</td>
<td>0.081</td>
<td>0.033</td>
<td>2.458</td>
</tr>
<tr>
<td>Commitment ← Design</td>
<td>0.178</td>
<td>0.039</td>
<td>5.62</td>
</tr>
</tbody>
</table>

The effect of the independent variable (design promoting regional products) on the variable M (commitment) is not valid. Thus, hypothesis H5b is rejected.

### CONCLUSION

The results obtained in this study point to the crucial role of the physical environment of the point of sale in consumers’ relationship with a retail outlet. Thus, we found that a design promoting references to regional products significantly affects customer attachment to the store. However, the hypothesis about the positive influence of playing regional music on customer loyalty was rejected. The hypothetical relationships between commitment, attachment and loyalty have been confirmed.

To test the mediating effect of commitment, we used linear regression and structural equations. The results reject the mediating effect of commitment on the relationship between the physical environment of the store and loyalty.

The results highlight the important role of merchandising techniques in responding to local consumers’ expectations. To this end, managers of supermarkets and hypermarkets can opt for the most effective merchandising techniques that can best meet local consumers’ expectations and therefore build up loyalty to their outlets such as a design highlighting regional products, playing regional music, spread of odors in theme weeks, Point Of Sale ads, the sample technique, testing regional product, etc.

Therefore, it is important for retailers to change the environment of their outlets and to create a regional atmosphere. Thus, playing regional music or spraying odors in theme weeks are components that can induce the purchase of a regional product. Retailers are also asked to create a design promoting regional products that encourage consumers to pay more attention to them.

However, our study is not without limitations. In our study, the hypothesis on the regional atmosphere was rejected. Lack of real music played in the study could have had an impact on our results. At this level, we consider it essential to carry out an experiment to study the influence of playing regional music, in a point of sale, on consumer behavior. To our knowledge, no study opted for this research perspective, except that of North & al (1999) who found a significant relationship between the geographic origin of the music played and product selection.

These results allow for making some recommendations to retailers. First, retailers should pay attention to the physical environment of point of sale and show interest in the merchandising discipline of “Merchan-feeling”. Furthermore, considering local consumers’ requirements will make retailers more profitable. Our results can also be a prerequisite to promoting and enhancing regional products positioning in store shelves.

### REFERENCES


