Atmospheric Components of a Commercial Website and the Behavioral Responses of the Cyber-Consumers: Case of an Online Store of Cultural Products

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Abstract

With the development of the Information Technology (IT) and communication, electronic marketing has drawn a wide interest, especially with regard to the evolution that it marked in the field of delivery. This continuous development is urging to adopt new rationale, since the classical approaches of marketing and merchandise delivery have proven to be no longer practical. Within this perspective, the atmosphere and mood in the virtual stores deserve to be evoked by researchers, website designers and commercial managers responsible for virtual stores. Actually, attributing a sensorial personality to the virtual commercial stores, while considering the atmospheric elements as key factors capable of guiding favorably the behavior of the cyber consumers, seems to be a strategy that contributes to knock over the classical model of purchasing behavior of the customer. Thus, the aim of this research is to put into evidence the contribution of the designed mood of the website in accounting for the cyber consumers’ reaction. Hence, the study firstly aims to identify, via a qualitative analysis, the different components of the website atmosphere and secondly, seeks to study the procedure by which those components set an influence on the behavioral responses (timing of the visit and access frequency to the website, etc.) and the emotional reactions (pleasure, satisfaction, dissatisfaction, etc.) of the cyber-customer while browsing the commercial website. To collect data, a lab experiment was set while the customers were browsing a cultural product website.

Keywords: Online Stores, E-consumer, Behavioral Reactions, Emotional Responses, Website Atmosphere, in Lab-Experiment

JEL Classification: M31

Paper Classification: Research Paper

Introduction

With the development of information technology and communication, E-commerce and virtual marketing have grasped, in the recent years, a particular interest thanks to the added value that they brought to the field of marketing. This advancement requires the adoption of new techniques and strategies, since the classical approaches of marketing and retail delivery have
proven to be no longer practical. Within this perspective, new propositions that offer insight into the consumers’ responses to the atmospheric cues in the virtual stores deserve to be evoked by researchers, website designers and marketers.

As shown throughout the recent work on web atmospheric and customers reactance, the “atmospheric cue” proves to be a very relevant concept that allows marketers, on one hand, to explain how the design of web interfaces is likely to affect the quality of the customers’ interactions and responses and on the other, to differentiate the contributions of the web atmospherics’ cues based on the customers’ navigational behaviors (Lemoine, 2012; Loureiro & Roschk, 2014).

Kotler (1973) was the first researcher who had delineated and used the term “atmospherics”. He had described it as “the conscious designing of the store environment to create certain buyer’s responses and produce specific emotional effects that would enhance the customer’s purchasing likelihood. Derbaix (1987), from his perspective, defines “atmospheric cues” as “an organization of space of affective orientation that aims to create impressions of well-being, welcome, joy, pleasure, and happiness”. Milliman and Fugate (1993) define the store’s atmosphere as any components of the purchasing environment (ambient smell, music, colors, decor and design and quality of the service), affecting the perception of the consumers and able to stimulate their senses.

Turley and Milliman (2000) also report that the “atmospheric cues” refer to “any component within an individual’s perceptual field that stimulates one’s senses”. They conclude that the effect of the atmospheric cues on the customer’s behavior is strong and solid, and it can be designed to increase the likelihood of producing specific purchasing behaviors from consumers. Turley and Milliman (2000) study highlights a diversity of purchasing behavior that marketer can affect and the variety of atmospheric cues that can be used. In their review of numerous research studies, Turley and Milliman (2000) noted that a basket of in-store cues might influence and shape the shoppers’ behavior. These atmospheric cues can be more powerful than any other marketing inputs that are not used in the retail store (Baker, 1986; Baker, Grewal & Parasuraman, 1994; Dailey, 2004) and may be even more powerful to the buying decision than the product itself (Kotler, 1973).

A thorough literature has demonstrated the capacity of the real atmospherics’ cues in modifying the consumers’ behaviors towards deeper engagement and better approach reactance. Little is known on how stimuli and cues emerging from the online environment influence purchasing behavior. Therefore, researchers studying the application of environmental psychology have proposed a set of e-atmospheric cues and analyzed their effect on the consumers’ behavioral responses to suggest ways to apply these variables on online retailing. For this purpose, a large variety of atmospherics cues have been identified and empirically tested both for online and offline retails. Vis-a-vis this large mixture of cues, researchers contend that it seems to be an underlying assumption that each context is unique and has its own cues and offline and online atmospheric cues are idiosyncratic to their respective environment (Loureiro, Almeida & Rita, 2013). Nevertheless, researches relating to the retail environment agree that the atmospherics cues can be a means of impacting the consumers’ behavior in both contexts since both atmospheres are comparable and share similar characteristics which need to be more analyzed (Loureiro & Roschk, 2014).

Quite conventionally, a literature review is warranted, including initially an effort to clarify the fuzzy concept of online atmosphere. In a second step, the behavioral and emotional reactance is presented that may show e-customer once facing an online atmospheric stimulation. A presentation of the methodology used will be announced thereafter. Finally, the article ends by discussing the results, presenting the key findings, recommendations and limitations, and pointing
out the future research scopes.

**Literature Review**

Notwithstanding, the virtual atmosphere is a topic of particular importance in the context of virtual selling stores, the field of e-marketing and the e-consumer behavior, as it has been studied very little. Indeed, the literature on this new concept is considerably less developed than that related to the atmosphere of the offline selling store (Shim, Youn, Shin & Nottingham, 2002; Degor & Deschodt, 2006; Lemoine, 2008, 2012).

**The Atmosphere of an Online Shopping Store**

The dramatic growth of the Internet technology and the e-commerce led marketers to rethink their marketing strategies and to adopt new pathways leading to a better understanding of the e-retail environment and the elicited e-consumer behavior (Childers, Carr, Peck & Carson, 2001). In this regard, marketers, hand-in-hand, with academics and practitioners, have started designing new e-marketing strategies where new concepts and techniques have been developed. As in the offline environment, the “atmospheric cues” have been posited again by marketers, academics and practitioners to influence consumers in the online context. In a seminal effort to define this variable, academics tend to rely on the classical definition of “atmospherics” stated by Kotler (1973), by altering it into the context of online shopping stores. Other researches on web atmospherics have further delineated this variable, similar to Dailey (2004) who defined the “web atmospherics” as “the conscious designing of web environments to create positive effects (e.g., positive affection, positive cognitions, etc.) on users in order to increase favorable consumer responses (e.g. site revisiting, extended browsing timing, etc.)” vis-à-vis the website in terms of site attitudes, site involvement, exploratory behavior, pre-purchase and purchase intentions (Michon, 2005; Lemoine, 2008; 2012). Dailey (2004) in his seminal piece on navigational consumer’s behavior stated that “when marketers design web interfaces in order to entice consumers, they are utilizing web atmospherics”.

To further explain this variable, additional conceptualizations were developed based on a review of existing findings about how and why consumers are influenced by atmospheric cues in the online stores (Dailey, 2004). The first group of definitions was relatively poor as they present the online retail environment only from the perspective of the quality of the web interface features and graphics (Lohse & Spiller, 1999). Subsequently, Ladwein (2000) from his perspective proposes the concept of layouts and design to define the Internet atmospherics cues by referring to the readability of pages, the easiness of navigation, the website structure, the interface features and the easiness of usage. Childers et al, (2001) also advanced a new concept altering that of the offline atmospheric retailing store, called “web-mospherics” so as to describe the online stores’ atmospherics cues. Other authors (Steuer, 1992; Helme, 2001; Coyle & Esther, 2001; Eroglu, Machlet & Davis, 2001; Dailey, 2004; Degor and Deschodt, 2006; Housman & Siekpe, 2009; Chen & Hsieh, 2011; Lemoine, 2012; Loureiro et al, 2013; Loureiro & Rosck, 2014) developed clear and well-designed consumer researches to describe, explain, and predict what would impact the e-consumer preferences, attitudes, orientations and behaviors within this changing marketing landscape.

Indeed, Baker (1986), and Baker, Grewal and Parasuraman (1994), in their examination of the atmospheric qualities and cues of a real selling store, define the retail atmosphere according to three dimensions namely: the atmospheric environment (music, lighting, color, crowdedness, etc.), the environmental design and architecture (size of the selling store, layout, access to the product)
and the social environment (availability and helpfulness of the staff). Converted to the online context, this typology involves the classification of the atmospherics cues of a virtual shopping outlet into three groups: the structural factors, the atmospheric factors and the social factors. Thus, navigation features (easiness of navigation, the internal search engine, the organization of menus and website structure and layouts) become the structural factors. Whereas, the design characteristics, that affect the e-customers senses and shape their emotional states (music, color, videos, light, odor, entertainment, text and images), are associated with the atmospheric factors. As for the social factors, they are presented by the overall environment agents (Baker, Parasuraman, Dhruv & Glenn, 2002).

In the same context, Eroglu et al (2001) proposed a taxonomy which classifies the atmospherics cues into two categories (Eroglu et al 2001): high “task relevant” cues and low “task relevant” cues (Dailey, 2004). The high “task relevant” cues are cues that help and enable the e-consumer in achieving his main goals. These refer mainly to the elements related to the website content and the efficiency of the browsing experience (text, informational content, buttons, links, description of the product, price, delivery and return policies, etc.) (Eroglu, Machleit & Davis, 2003; Dailey, 2004). The second category includes the low “task relevant” cues which are slightly relevant to the main task and unimportant to the completion of the consumer’s goals. This group includes elements related to the peripheral (entertainment) and the sensory aspects of the website (color, music and sounds, animation, background, entertainment, pictures etc.) (Eroglu et al, 2001; Eroglu et al 2003; Dailey, 2004; Michon, 2005; Loureiro et al, 2013; and Loureiro & Roschk, 2014). Taken together, these two types of cues compose the e-atmosphere. Many other classifications were also proposed by several researchers in this field. A good example which can be illustrated here is that of Childers et al, (2001) which brings together the different components of the online atmosphere and sort them into two groups: functional components (central) and experiential components (peripheral).

Even though the developed classifications of the web atmospherics components are very interesting, they reveal some defects. On the one hand, the proposed taxonomies do not always take into consideration all the website atmospherics cues. To illustrate a good example, the social component mentioned within the first classification of Baker (1986), Baker, Grewal and Parasuraman (1994), in the context of the real store referring to the mobility, availability and helpfulness of employees was ignored in the case of the online shopping outlet. In addition, the taxonomies proposed by Napoli and Ewing (1998), Eroglu et al, (2001) and Childers et al, (2001) do not provide us with information on how to classify this component among the other components already presented. Therefore, could this component be similar to the informational, recreational, interactivity or effectiveness as presented by Napoli and Ewing (1998) or with the two factors, high or low “task relevant” to achieving the main goal of the e-customer, in accordance with the classification of Eroglu et al, (2001) (Eroglu et al, 2003) or among the functional and experiential factors as mentioned by Childers et al, (2001) & Lemoine, (2008)? On the other hand, the classifications already stated do not reflect the behavior of the online customer where the focus was primarily on atmospherics issues rather than on the behavioral component of the e-consumer (Turley & Milliman, 2000; Michon, 2005; Cheng, Wu & Yen, 2009).

Given these limitations, Lemoine (2008), from his side, suggests resorting to Baker’s classification, which is related to the components of the traditional retailing stores, that has proven its effectiveness and easiness in explaining, describing and analyzing the selling store atmosphere (Donovan et al, 1994; Eroglu et al, 2001). Other academics and researchers argue that a web-based store can be described just like a real selling store to the extent that both of them manifest several resemblances in terms of the constituting components (Lemoine, 2012).
The Impact of the Atmosphere on the Behavior of the E-consumer

Given the obvious strategic interest that the atmosphere of e-store manifests for researchers and practitioners, it is not surprising that numerous researches are interested in the influence of the e-store atmospherics cues on the behavior of the e-consumer (Eroglu et al, 2003; Lemoine , 2012; Loureiro et al, 2013; Loureiro & Roschk, 2014). Thus, many researches were in turn interested in the relationship between the atmosphere and consumers’ behavior. The idea of looking jointly at a “basket of atmospheric cues” and studying their respective influences on the behavioral responses of the customer dates back to and is explained by the existence of a ploy-sensorial consumer (Lemoine, 2005; Michon, Chebat & Turley, 2005; Dailey, 2004; Biswas & Krishnan, 2004; Hunter & Mukerji, 2011) who requires a move towards synergistic integration of many sensorial registers (Lemoine, 2012).

The impact of this bundle of atmospheric cues on the nature and outcomes of an online shopping has been analyzed and tested by researchers based on the Stimulus-Organism -Response (S-O-R) paradigm. This framework states the atmospherics cues can influence the customers by affecting their behavioral and emotional responses. The SOR model of Mehrabian and Russell (1974) has served as a basis to describe the approach and/or avoidance behavior of the consumer. According to this model, the atmospherics cues can trigger within the consumer several sensations classified into three dimensions as follows: pleasure, arousal and dominance. These dimensions will subsequently shape the responses and behaviors of the customers within the retail environment.

In fact, the SOR paradigm was firstly introduced by Mehrabian and Russell (1974) in the context of environmental psychology and then applied on selling context by Donovan and Rossiter (1982). The rationale of this model is to investigate the potential relationship between the emotional states, induced by certain environmental stimuli, and their behavioral impacts (Loureiro & Roschk, 2014). The SOR framework suggests three-group factors: the atmospheric stimuli, the organism states (internal states) and the behavioral responses (approach/ avoidance). Within this model, the stimulus (S) is conceptualized as a set of environmental characteristics which arouse the overall internal organismic states of the consumer (Eroglu et al, 2001; McKinney, 2004; Loureiro & Roschk, 2014). The organism (O) is considered in this framework as an intervening variable aroused by the atmospheric stimuli and refers to the three-dimensional-pleasure, arousal and dominance (PAD) emotional states of the individual. As a natural response (R) to this stimulation process, the consumer demonstrates an approach/avoidance behavior to the shopping experience (Donovan & Rossiter, 1982; Eroglu et al, 2001; Loureiro, Almeida & Rita, 2013).

Actually, a number of empirical and theoretical studies in this area has shown the usefulness of the SOR model and proven its validation in the explanation and analysis of the consumers’ behavior in the traditional offline store (Baker, Grewal & Parasuraman, 1994; Donovan & Rossiter, 1982; Donovan, Rossiter, Marcoilyn & Nesdale, 1994; Dailey, 2004; Lemoine, 2008, 2012; Loureiro & Roschk, 2014). Overall, these studies have as well recognized the usefulness and effectiveness of this model in the explanation of the shoppers’ behaviors within an online shopping context (Dailey, 2004; Koo & Ju, 2010; Lemoine, 2008, 2012; Loureiro et al, 2013). Therefore, a number of researchers have begun to call for a more systematic usage of SOR paradigm to elucidate the role of the atmospheric cues in the online shopping context and to demonstrate the impact of online atmospheric cues on consumers’ emotional states and shopping behaviors. Consequently, a number of research questions have arisen in this regard.

Looking at how online atmospheric cues affect the e-customers’ behaviors led the researchers to examine the relationship between cognition, emotion and conation (behavior) (Derbaix &
Palm, 1989; Gouteron, 1995; Fisler, 1996; Lemoine, 1997, 2000, 2008, 2012). This relationship can, in fact, be understood from an emotional inspiration of the SOR Model which highlights the role of mediating variables in explaining the atmospherics cues – behavior responses relationship. The review of all the existing findings in this area shows that the atmosphere may influence not only the e-customer’s behavioral reaction (conative) (exploratory behavior, pre-purchase and purchase intentions, impulsive purchase), but also the emotional (mood, emotion, feeling, flow, involvement, attitude) and cognitive internal states of the customers (evaluation of the overall quality of the service) (Milliman, 1982; Milliman, 1986; Rieunier, 1998; Rieunier & Dauce, 2002; Lemoine, 2005; Garlin & Owen, 2005; Michon, 2005; Degor & Deschodt, 2006). These findings were reflected in the results of Lemoine (2008) work, which focused on the customer’s behavioral responses. Lemoine (2008) advocated that a commercial website can be considered just as a real retail store and that there are a lot of similarities between the online and the offline consumer behavior (Dailey, 2004; Biswas & Krishnan, 2004; Koo & Ju, 2010; Lemoine, 2008, 2012; Loureiro et al, 2013).

Given the demonstrated and substantial impact of the e-atmospheric cues on the e-consumers purchasing behaviors, a variety of other studies emerged in this regard (Dailey, 2004; Michon, Chebat and Turley, 2005; Cheng, Wu & Yen, 2009; Hunter & Mukerji, 2011; Lemoine, 2012; Loureiro & Roschk, 2014). The conducted studies proclaim that the web atmospherics cues can affect the overall e-customers’ mood, browsing experience and control over web navigation, which, in turn, arouses psychological and emotional reactance and leads to negative and/or positive behavioral responses such as exploratory behavior and avoidance behavior or approach behavior. Overall, the mood in the e-consumer’s behavioral responses circle could swing from extreme excitement to a response of extreme carefulness. It is, therefore, imperative to develop a better understanding of the impact of atmospherics cues on e-consumer behavior (Dailey, 2004; Michon et al, 2005; Degor & Deschodt, 2006; Housman & Siekpe, 2009; Chen & Hsieh, 2011; Lemoine, 2012; Loureiro et al, 2013; Loureiro & Roschk, 2014).

Based on all findings about web atmospherics, psychological reactance of the customer and the flow experience, a model has been developed. This framework intends to help in explaining the role of the atmospheric cues in the virtual context and in identifying the principles of the online shopping experience.

Figure 1. An S-O-R Model for an online shopping experience

Given the particularity of the mediated environment where customers interact with and through the media, several researchers (Csikszenmtihalyi, 1990; Ghani, Supnick & Rooney, 1991; Trevino & Webster, 1992, Trevino, Webster & Yung, 1993, cited by Novak & Hoffman, 1996; Novak & Hoffman, 1997) suggest referring to the ‘The flow’ variable to properly trace the interface customer-machine interaction (Csikszenmtihalyi, 1977 cited by Novak & Hoffman, 1996; Novak, 2000; Dailey, 2004; Lemoine, 2012), and better understand the behavior of e-consumer within an online context (Degor & Deschodt, 2006).
Research Gap and Contribution of the Study

In the recent years, online shopping has greatly attracted the attention of both marketers and shoppers. Indeed, from the marketers’ perspective, online shopping offers a number of benefits in terms of use of time, technology and information. Whereas, from the shoppers’ viewpoint, online retailing store offers a value and convenient shopping experience for them. Therefore, marketers emphasize the importance of analyzing and understanding the consumers’ behaviors to this new retail environment. Despite the importance of this new environment and all the hype, limited research has been conducted in this area and not much research attention has been given to the effectiveness of web-atmospherics cues in shaping the shopping outcomes relationship.

This research will extend the online atmospheric literature by specifically taking a step forward in examining the atmospheric cues of online retail store and illustrating their impact on shoppers responses. Based on recent work on web atmospherics and online consumer behaviors, the present work can offer an insight into the question of how atmospheric factors influence the consumers’ emotional and cognitive states which would lead to various aspects of purchasing behavior.

Objectives of the Study

In fact, the shift towards online retailing has made it apparent that the new concept of e-atmospherics contributes strongly to a better understanding of the e-consumer behavior and seems to be a very useful tool to come up with a new strategy that helps in designing a fit-to-the-purpose model of the “online-stores” consumer behavior. The e-atmospherics cues and the e-consumers behaviors are the focus of this research where attention is devoted to pinpoint the types of atmospherics cues and demonstrate how those cues are likely to influence the shopping habits and the overall online purchasing process (the consumer’s browsing experience, purchase intentions and shopping time) (Lemoine, 2008). The study aims to identify the different components of the website atmosphere and study the process by which it influences the emotional state of consumers and their subsequent consumption behavior.

Methodology

Type of the Study

The aim of this research is to highlight the importance of atmospherics cues in the online retailing store. It would show that the online atmospheric cues can be used, such as within an offline environment, to affect and manipulate the e-consumers’ purchasing behavior. Hence, the study firstly aim to identify, via a qualitative analysis, the different components of the website atmosphere and secondly, seeks to study the procedure wherein those cues influence the behavioral responses (timing of the visit to and access frequency to the website, etc.) and the emotional reactions (pleasure, satisfaction, dissatisfaction, etc.) of the online customer while browsing the commercial website.

Sample

The population, upon which the study relied consists of 100 students pursuing various courses. The recruited participants have experience in the use of the Internet and familiar enough with both offline and online purchasing (63 % of respondents interviewed use the Internet daily). The study was limited to a commercial website of cultural product designed specifically for the research.
Method of Data Collection

This research used an in lab-experiment with questionnaire for data collection. In this study, a questionnaire inspired from the existent literature was developed and validated with a pilot test. In fact, 20 university students with good experience of both online and offline stores have been selected to gain the validation of the pilot test.

For the experiment, cyber consumers have been gathered in groups of 20 participants; each within a laboratory well-equipped with 30 personal computers. The participants have been selected, then assigned into one of the five groups randomly to ensure a well-balanced frequency distribution. Before the beginning of the experiment, each participant was explained exactly what to do during the browsing session.

The conducted experiment was, basically, divided into two parts according to the two types of music, animation and color treatment. The first one is the static atmosphere, in which the participants were assigned into no music, no animation and cool colors condition after they entered into the laboratory. The second round of the experiment of the convivial atmosphere refers to the “with music”, “with animation” and “with warm color condition”. The content of the webpages browsed by the potential consumers was the same in both versions.

![Table1: Design of the Experiment](image)

<table>
<thead>
<tr>
<th>Website version</th>
<th>Atmosphere condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Static atmosphere</td>
<td>No music, No animation Cool color</td>
</tr>
<tr>
<td>2. Convivial atmosphere</td>
<td>Music Animation Warm color</td>
</tr>
</tbody>
</table>

Upon entering the laboratory, the participants were given a brief description about the experiment. They were asked to navigate spontaneously and not to act in a simulated way. In other words, they were requested to behave as if they were really going to make a purchase from the given online store. The participants were told that the aim of this research is to understand their online purchasing behaviors. Finally, the subjects were requested to answer the given questionnaire assessing their emotional and behavioral responses. The obtained qualitative data has been analyzed through thematic analysis conducted by the software Sphinx and, then, converted into frequency.

Variables Studied

This study has carved out four main variables to analyze the impact of atmospheric cues on the consumer’s responses. With reference to the studies of Mehrabian and Russell (1974); Lemoine (2012) and Novak et al (2000), the below mentioned variables were considered in proposed model:

1. The emotional states were probed through Mehrabian and Russell’s (1974) semantic differentials (Pleasure- Arousal –Dominance) using eighteen-item scale (Lemoine, 1997). The (PAD) scale has a Cronbach’s alpha coefficient of .829 (Refer Table 2).
2. The flux state is captured with a selection from Novak and Hoffman’s scale including 6 items with Cronbach’s alpha coefficient of .865.
3. Degor and Deschodt’s (2006) scale was chosen to measure the behavioral responses of the e-
consumers. The used scale has a Cronbach’s alpha coefficient of .843.

4. The evaluation of the atmospheric cues has been measured using four-item scale proposed by Rieunier and Dauce, (2002); and Lemoine, (2005). These authors propose a measurement scale including 4 items with a Cronbach’s alpha coefficient of .880.

Table 2: Cronbach’s alpha co-efficient of the factors studied

<table>
<thead>
<tr>
<th>Factors</th>
<th>Items</th>
<th>Cronbach’s alpha coefficient (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The emotional states (PAD)</td>
<td>18</td>
<td>0.892</td>
</tr>
<tr>
<td>The Flux state</td>
<td>6</td>
<td>0.865</td>
</tr>
<tr>
<td>Behavioral responses</td>
<td>2</td>
<td>0.843</td>
</tr>
<tr>
<td>Evaluation of the Atmospheric cues</td>
<td>4</td>
<td>0.880</td>
</tr>
</tbody>
</table>

Results of the Study

The Different Components of the Atmospheric Website

The content analysis of the interview reveals several atmospherics cues. These cues can be classified into three categories namely the cues related to the suitability of the use of the website, and the cues associated with the hedonistic and sensory aspects and finally the virtual agents of the website.

Indeed, similar to the work made on a real retailing store, the visual elements (such as colors, images, animations) and sound (music) in the website background can be assimilated to the environmental factors that affect the senses and the emotional states of the e-consumer. In the same way, the navigation features (easiness of navigation, buttons, links, organization of menus and the website layouts and content) were used to present the structural factors. Yet, for the virtual agents (contact page, forums, security of transactions), they were considered as the social component of the online atmosphere (Table 3).

Table 3: The classification of the atmospheric components by order of importance

<table>
<thead>
<tr>
<th>Atmospheric components</th>
<th>Number of citation</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The informational content (information)</td>
<td>105</td>
<td>19.44</td>
</tr>
<tr>
<td>Easiness of navigation</td>
<td>76</td>
<td>14.07</td>
</tr>
<tr>
<td>Colors</td>
<td>65</td>
<td>12.03</td>
</tr>
<tr>
<td>Images</td>
<td>64</td>
<td>11.85</td>
</tr>
<tr>
<td>Links</td>
<td>61</td>
<td>11.3</td>
</tr>
<tr>
<td>Entertainment</td>
<td>51</td>
<td>9.44</td>
</tr>
<tr>
<td>Musical background</td>
<td>46</td>
<td>8.5</td>
</tr>
<tr>
<td>The menus organization and website layout</td>
<td>34</td>
<td>6.3</td>
</tr>
<tr>
<td>Security of transaction</td>
<td>26</td>
<td>4.8</td>
</tr>
<tr>
<td>Contact Sections</td>
<td>12</td>
<td>2.22</td>
</tr>
<tr>
<td>Total</td>
<td>540</td>
<td>100</td>
</tr>
</tbody>
</table>
Based upon the obtained results, it seems that respondents give particular importance to the first category of atmospheric cues which refers to the elements related to the suitability of the use of the website (51.11% of citations). Thus, the most frequently cited elements that contribute to the convenience are, in the first part, the informational content of the website (19.44%) which includes all the information related to the presentation and description of the product or the service provided. The easiness of navigation (14.07%) was mentioned in the second level in terms of the importance for the e-consumer. Those cues refer to the easiness of scrolling through the website and finding the information the prospect needs regarding the sold product or the service to be provided. The links buttons (11.3%), the overall menus organization and the website layout (6.3%) are also among the factors mentioned by the e-consumers, but to a lesser extent, and are directly
related to the website functionality.

Even though the sensory and hedonistic factors are listed by respondents in the second position (41.85%), they seem fundamental. Within this category, the visual components are most frequently cited. Those components refer to the colors (12.03% of citations), the images (11.85%), and the entertainment (9.44%). However, as to the sensory elements, the study had only the music at the background of the website (8.5%).

Finally, the least environmental characteristics mentioned by respondents are, for both, the “security of Transactions” (4.8% of citations) and the “contact sections” (contact button, forums, etc.) (2.22% of citations).

Hence, here are some testimonials:

- “For me, the most important is the presence of an animation well processed, the use of lively colors, and the easiness of navigation through the website”.
- “The initial configuration and the homepage are my first stimuli to continue to browse the website. Besides, buttons links and the easiness of navigation are also important for me”.
- “The website content is the most important thing for me”.
- “In a commercial website, what is important is, firstly, the attractiveness of the data, then the music in accordance with the nature of the product, but not too much animation to the point of no longer seeing the words and sentences”.
- “I think the music, the animation and essentially the usage of the website”.
- “Personally, I think it’s the organization of the website. It means, the content and usability of the website’s pages, and the organization of its structure are essential, but I also believe that the presence of elements such as images, colors, etc. seem to be important in a website”.
- “The fact of finding information about the product”.
- “Entertainment and especially the colors... but not the music”.
- “Primarily I like a slow musical background but not the animation”.
- “The colors, the simplicity of the sections, and the music”.
- “The most important are the links buttons”.
- “The presence of an animation and music does not appeal to me so you must avoid this kind of things. For me to capture the attention of the e-customer, a special focus on the informational side should be given for the website and especially the organization of the menu”.
- The images being used, the usefulness of the website, i.e. the wealth of information, colors, the sound and animation”.
- “The most important is the security of transactions, trust, and speed of downloading and the easiness of navigation; not too much colors or animation up to feeling lost”.

Feelings Arousing while Browsing the Website

Reading of the interviewees’ speeches shows that their responses are often loaded with emotional expressions. Terms such as “Pleasure (32.38% of citations), Satisfaction (31.43%), excitement and simulation (13.33%), boredom (6.66%) etc.” are frequently used (Table 5).
Table 5: Taxonomy of the emotional states listed by the e-consumer

<table>
<thead>
<tr>
<th>Emotional state</th>
<th>Number of citations</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleasure</td>
<td>34</td>
<td>32.38</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>33</td>
<td>31.4</td>
</tr>
<tr>
<td>Excitement and simulation</td>
<td>14</td>
<td>13.3</td>
</tr>
<tr>
<td>Relaxation</td>
<td>10</td>
<td>9.52</td>
</tr>
<tr>
<td>Boredom</td>
<td>7</td>
<td>6.66</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5</td>
<td>4.76</td>
</tr>
<tr>
<td>No particular feeling</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

During their interactions with the websites, the e-consumers appear to experience a variety of emotional states that range from pleasure, indifference to boredom and anxiety.

The results show that the customer tends to experience feelings of pleasure (32.38% of citations) if the website is user-friendly, unique and allows easy access to the needed information and goods (I feel a pleasure especially when the website is user-friendly and unique. It’s a real pleasure if I get an easy access to the information that I really need). Pleasure is also expressed by the consumer whenever the website is perceived as pleasant in terms of color, animation, and music (If it is a pleasant website, i.e. in terms of color, animation and music, I feel a real pleasure). Besides, some e-customers reveal satisfaction (31.43% of citations). For them, this particular state is mainly stimulated by websites that provide, firstly, an easy access to information with some animations and little music which is consistent with the nature of the product or service provided online (I feel satisfied if the information is accurate with some animation [not too much], but if the images downloaded are too heavy, it will be very boring) and secondly, high quality of service that meets exactly the needs of the e-consumers (My satisfaction is dependent on the quality of service provided by the website, i.e. if I find the product that I seek).

Regarding the degree of excitement and stimulation (13.33% of citations), it seems primarily associated with the wealth of informational content (It’s exciting that I find the web links rich and especially when I find what I look for). (I was excited, very interested ... by the consistency of the content and the clarity of the website structure). For e-consumer, stimulation is also dependent on the presence of music, the display of animation and the selection of colors (Personally, I find it very interesting; I was stimulated and excited by the choice of music, animation and colors in the background; I was really curious to dive more and more into the website content).

In light of the interviews conducted, the feeling of relaxation is systematically related to the presence of atmospheric mood factor that affects the sensory side of the navigator such as music, images, colors, and animation (I feel relaxed in the presence of good music). With regard to the dissatisfaction felt by the consumer when navigating a website, it is mainly due to the difficulty of navigation (I feel upset if the navigation is of very low pace and especially if I don’t find what I seek), to a bad accessibility to information and to a non-clarity of the overall website structure (I do not like the websites where the organization of menus is not good and the structure not clear). In addition, the buyer feels unsatisfied if there is an exaggerated use of colors or animation as he/she feels lost and unable to concentrate (not too much colors or animation to the extent of feeling lost or to the point of no longer being able to read the whole words and sentences). Boredom, as another emotional state felt by some consumers, is mainly encountered when the images are very heavy to download and the animations and colors are not used in the website design (if the images...
are downloaded very heavily and there is no animation it will be very boring, that is monotonous in the absence of colors and animation).

It is also clear from the results that some respondents could not feel anything special (I did not feel anything special because I was concentrating on what I was looking for on the website, nothing special). This is because, they were more interested and attracted by the usefulness and the informational content of the website.

Most respondents said that the atmospheric cues seem to be the cause of reaching these specific emotional states. It is particularly the environmental and sensorial factors (music, animation, colors and images) and the layout and structure of the website, i.e. the elements related to website functionality (easiness of navigation, information content, buttons links, the organization and layout of the website), which are able to generate more specific emotional reactions for the e-customer. Nevertheless, the study could not attribute any specific emotion to the constituents of the third component of the website atmosphere called “the social characteristics of the website” (virtual agents).

Thus, a convivial commercial website characterized by an easy navigation, easy access to information and a very rich content seems to generate a feeling of pleasure, enjoyment and stimulation to the e-buyer. Notwithstanding, the difficulty of navigation, the bad accessibility to information and non-clarity of the website structure and layout provide a displeasure and non-satisfaction among e-customer. Whereas, the presence of environmental and sensorial factors in the website are the source of pleasure, satisfaction, excitement and relaxation. However, an excessive amount of environmental factors, like the excessive use of colors or animation to the extent of feeling lost and losing concentration or the insertion of a background not congruent with the nature of the product sold or the service provided, can cause non-satisfaction and displeasure, and even anger. Also a website with no colors or animation creates dullness; and viewed as boring. Therefore, practitioners, marketers and website designers are expected to conceptualize websites characterized by a rational amount of colors and animation and a background in congruence with the nature of the product sold or service provided.

The Behavioral Responses

The obtained results indicate that there are three types of behavioral responses undertaken by the prospects when navigating a merchant website and they are triggered mainly by the atmospheric cues of the website: the intention to revisit the website again (31.87% of citations), the intention to recommend it to others (14.28% of citations) and the intention to explore thoroughly the website (approach / avoidance behavior) (57.14%) (Table 6).

<table>
<thead>
<tr>
<th>Behavioral reactions</th>
<th>Number of citation</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to revisit the website again</td>
<td>26</td>
<td>31.87</td>
</tr>
<tr>
<td>Intention to recommend it to others</td>
<td>13</td>
<td>14.28</td>
</tr>
<tr>
<td>Intention to explore thoroughly the website (approach/ avoidance)</td>
<td>52</td>
<td>57.14</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100</td>
</tr>
</tbody>
</table>

The respondents’ speeches indicate that aside from the characteristics of selling (trust, transaction security, etc.), respondents tend to include the elements of environment and design (the elements of convenience and aesthetics) as crucial factors to revisit the website, explore it
more thoroughly, and recommend it to others. In fact, 85% of citations identified by navigators, related to behavioral approaches, stipulate that the rich informational content, the easy access to information and the easiness of navigation in the website are among the main factors for staying a longer time on the website and explore it thoroughly.

Thus, a website with an attractive design «in terms of richness of content and organization “clarity of structure” and “easiness of navigation” attracts lots of e-consumers and motivates them to stay more time on the website and explore it thoroughly. Similarly, the fact that the information on the requested product can be found easily leads the prospect to extend the time of navigation into the website. If the website is clear, simple, easy to discover and meets the customers’ expectations, the consumer would feel at ease and continue browsing. Otherwise, he would shut it all at once. The desire to stay longer on the website and explore it thoroughly may also be explained by the presence of some environmental factors in the website such as music, colors, and well designed animation.

The obtained results has shown that a website is considered as convivial when containing a well designed animation, an attractive music and lovely colors, and when it is pleasant and motivating to stay for more time. Thus, in the presence of these visual and aural factors, navigating has become more and more interesting; it’s really stimulating to stay a longer time browsing the website and discovering what it contains. However, in the reverse case, e-consumers’ behavior is characterized by escape and avoidance.

With regard to the intention to revisit the website again and recommend it to others, it is systematically linked to the elements related to the suitability of the website’s usage. Indeed, navigators tend to visit the website again and recommend it to others if, its information content is rich enough, its structure is clear and uncomplicated and it has a good accessibility to information on products sold or services provided.

However, if the website is characterized by “bad navigation experience”, the e-consumer’s intention to revisit it again or recommend it to a friend becomes low. Similarly, in the presence of aesthetic and sensory elements, respondents show interest towards the website and feel “a desire to have a look on it another time and put it among their “favorites” as well as to recommend it to other persons. Respondents are also quite attracted by the liveliness of the website atmosphere and its originality to the extent that it motivates them to revisit it another time and even to recommend it to other people. The social component of the website atmosphere was not, however, associated by respondents to any specific behavioral response.

Like the results obtained while dealing with the e-consumers’ feelings, the study confirms the influence of the atmospheric factors on the behavioral responses of the buyer. The study shows that the approach/avoidance behavior of the customer depends on the navigability of the website and the presence of aesthetic and sensory elements. The e-consumers tend to spend more time at the commercial virtual stores if the atmosphere (Lemoine, 2003) of the website is perceived as pleasant and attractive, i.e. when navigators feel that the music is congruent with the nature of the product, the animation is well designed and the colors are well-chosen. Similarly, a website containing a rich informational content and a clear layout and has a rapid access to products seems to foster the navigation of the e-consumer into the website to a long period of time.

This study also provides an opportunity to draw attention to the impact exerted by the sensory and structural components of the environment on the e-customers’ desire to revisit the website and recommend it to other people. Thus, users have the intention to visit the website again and even to recommend it to others, if they deem it to be rich in terms of informational
content, consistent, easy to navigate and allows easy scrolling between pages. The results have also shown that the intention to revisit the website and recommend it to someone else rises up whenever the respondents feel the website atmosphere really pleasant. Besides, a well colored website with a balanced amount of animation and a well-designed sounding background seems to increase the frequency of the website usage.

In addition, it appears from this study that customers of online retailing stores assign particular importance to the atmospherics cues related to the convenience of the website usage. They consider them as crucial factors to revisit the website, recommend it to other people and explore it thoroughly. The “navigators” also postulate that the aesthetic and sensory cues may also influence the behavior of approach and especially the exploration of the website, the timing of the visit and the intention to recommend it to others.

Besides from the results, this piece of research does not pretend to provide complete and accurate answers to the question of the influence of the atmospheric cues on the emotional and behavioral reactions of e-consumers. Thus, it remains simply as an exploratory research.

**Discussion**

The results of this research confirm the need, first, to take into consideration the atmospherics cues while designing a commercial website and, secondly, to integrate emotional dimensions in the study of e-customers’ behavior.

At the end of this study, some of the results tend to confirm that the elements related to browsing the website (information, easiness of navigation, accessibility to information, links, structure, etc.) together with the music, the animation, the images and colors are the main stimuli of the e-customer’s emotional and behavioral responses. Concerning the “virtual agent” variable, it turned out that this atmospheric cue seems to have no significant effect on the e-customer’s behavioral and emotional responses.

Accordingly, it seems conceivable to take into account the structural and sensory components of the website environment, as fundamental factors while designing a commercial website. Nevertheless, special attention must be paid to the nature of the musical piece broadcasted, the colors, and animation since these features alter the behavioral and emotional reactions of the customer. Therefore, it is desirable to carefully choose these atmospherics cues to ensure an attractive experience for the e-consumer.

These results constitute a guideline for marketers of online retailing stores as well as web-designers, since these atmospheric cues of different characteristics can be considered as a management tool able of influence the behavioral and emotional states of e-customers.

Finally, the selection of a suitable musical programming (in terms of congruence with the nature of the sold product or service provided, style, notoriety, tempo, etc.), attractive colors, a well-designed animation and a convivial browsing experience should be carefully arranged for the sake of maintaining the online consumers in positive affective states directing their online behaviors.

**Limitations of the Study**

This research presents an interesting contribution to e-marketing and sensorial marketing. Nevertheless, the results of the study are limited, given that the nature of the research which is exploratory and certain limitations are inherent in the investigations. First, it is necessary to
reiterate that the conclusions that were obtained through a survey about specific products. Accordingly, the external validity of this study is limited and cannot be generalized. Thus, to improve it, this investigation should be carried out on other product lines. Also, limiting the criteria of measuring the consumers’ emotional responses to verbal attitudes raises problems (Derbaix & Pham, 1989). Indeed, the respondents may have difficulties in expressing what they really feel and make a differentiation between the state in which they were before the navigation and the one in which they were after. Hence, it would be appropriate in future research to integrate simultaneously verbal and nonverbal methods of measuring emotions so as to minimize the previously mentioned methodological bias (Lemoine, 2003, 2008, 2012).

Scope for Future Research

As a conclusion, the model proposed in this paper represents an initial step in analyzing the online atmospheric cues and their impact on the shoppers’ experience outcomes. Given the importance of the online shopping context and the increasing number of online shoppers, this online atmospherics is likely to receive a particular interest from academics and managers. Therefore, further studies in this area will, certainly, provide more ecologically valid interpretation of e-atmospherics that will be of more usage to the managerial decision makers when considering the content of their online retail stores. Indeed, it’s extremely important for companies with an online presence to consider the target market and the content while designing a website and to implement the online atmospherics variables with a great deal of thought because of their significant effects on the online consumers’ behavior.

Undoubtedly, this area is widely open to all kinds of theoretical and empirical contributions where new paradigms and techniques can be infused within this discipline.

References


**Author’s Profile**

**Anji Ben Hamed Amara** is an Assistant Professor of Management and Marketing at Ahlia University Bahrain. In 2015, she obtained her PhD degree in management from the University of Paris with the highest level of distinction that could be awarded for a PhD in that first category university in France. Dr. Anji has wide ranging experience in academic teaching, research, training and consulting in management, marketing and entrepreneurship for the last 10 years in Tunisia, France and Bahrain. She is certified as a professional coach-trainer in entrepreneurship and leadership by the Center of International Private Enterprise (CIPE), USA and the William Davidson Institute at the University of Michigan, USA. She is appointed as reviewer by the International Management Research Academy (IMRA), London, UK.