The Role of Atmospherics in Influencing Consumer Behaviour in the Online Environment

Rory Hunter
Gerald Schwarz School of Business
St. Francis Xavier University
Antigonish, NS B2G 2W5, Canada
E-mail: x2006pfp@stfx.ca

Dr. Bhasker Mukerji
Gerald Schwarz School of Business
St. Francis Xavier University
Antigonish, NS B2G 2W5, Canada
E-mail: bmukerji@stfx.ca

Abstract

Online retailing has been growing in Canada at a "double digit rate" since 2002. With a 26% increase in online sales since 2006, businesses are attempting to apply traditional marketing theories in order to capitalize on this growth in online sales. Marketing literature has a great deal of empirical evidence confirming the influence of store ambience on consumer behavior in a bricks and mortar setting. In recent years, there has been an increase in the number of studies exploring the impact of website atmospherics on online customers.The objective of this paper is to explore the concept of atmospherics and analyze how it influences consumer behavior in an online environment. After reviewing the literature on atmospherics and analyzing existing models, a conceptual model has been proposed which provides an ecologically valid interpretation of the importance of online atmospherics. It illustrates the importance of tailoring "website atmospherics" according to the characteristics of the target market and also suggests incorporating consumer preferences.

Keywords: Atmospherics, online environment, target market, consumer behaviour

Introduction

The amount of interest in online retailing has grown dramatically over recent years as it becomes increasingly apparent that online retailing offers advantages for buyers and sellers alike. Consumer demands and preferences are changing to the extent that online retailing is becoming the more suitable option for many consumers (Burns, 2005; Maven, 2007; Leggatt, 2009). Online retailing offers consumers "temporal and spatial convenience" (Eroglu *et al.*, 2001), increased product or service value through lower prices (Lynch and Ariely, 2000), and increased product information that allows consumers to make more informed purchasing decisions (Bellman *et al.*, 1999). The consequence of these changing preferences is that retailers are now able to gain a competitive advantage by meeting these consumer demands when perhaps they could not do so in a bricks and mortar environment.

The shift towards online retailing has made it apparent that one cannot simply transfer real world retail marketing concepts to the virtual shopping environment. There are obvious fundamental differences. That is not to say, however, that certain existing marketing theories relating to bricks and mortar commerce cannot be adapted and applied to online retailing. This paper illustrates how the application of environmental psychology (see Mehrabian and Russell, 1974) has benefitted retailing in the real world and how researchers are now devising models to suggest ways to apply this phenomenon to online retailing. The extent to which the subject has been studied from an online perspective is limited, however, and this paper aims to add to the current literature and suggest an alternative model to demonstrate the extent to which online atmospherics affect consumer desire to buy. The term atmospherics is an abstract concept that, in this case, relates to the in-store environment. There is a wealth of research on the influence of in-store prompts in the bricks and mortar setting (see Baker *et al*., 1992; Sharma and Stafford, 2000; Kumar and Karande, 2000; Grewal *et al*., 2003; Michon *et al.*, 2008). In-store cues affect the consumer's experience by influencing "browsing, purchase intentions and shopping time" (Menon and Kahn, 2002).

Features that have regularly been analyzed include the smell, temperature, lighting, and color of a store, and even the music playing. Based on the psychological concept of stimulus-response, researchers suggest that these factors can influence "arousal and pleasure" (see Kotler, 1974) and, therefore, consumer decision making. For example, stimuli such as over crowding (Harrell *et al.,* 1980) and loud music (Kahn and McAlister, 1997) reduce consumer interaction, browsing time, and the purchase of unnecessary products (Harrell *et al.,* 1980). This suggests that if a consumer experiences a retail atmosphere that overly increases arousal and decreases the pleasure of the experience, it will have a negative impact on buyer behavior.

Researchers have begun to apply these concepts to online retailing. Dailey (2004) defines online atmospherics as the "conscious designing of web environments to create positive affect and/or cognitions in surfers in order to develop positive consumer responses." Although an environment does not exist in the traditional sense, given that there is no physical area of exchange, researchers such as Shih (1998) propose that the online interface in which the consumer purchases products still has "atmospheric qualities." It is suggested that a consumer's experience of an online shopping site is likely to produce similar cognitive and emotional responses that a physical store would (see Eroglu *et al.,* 2001), although the stimuli will differ.

Eroglu *et al.* (2003) suggested that online atmospherics are classified based on how relevant the media cues are on a given website. They proposed that a website will create an emotional and cognitive response by providing information relevant to the consumer buying process. This information (including details about the product, pictures, and navigation aids) is regarded as the "online atmosphere." Eroglu *et al*. (2001) additionally proposed that online atmospherics can be classified into two groups: a "high task relevant environment" and a "low task relevant environment." They imply that the atmospherical cues include all the information that aids a consumer in the buying process and all the other information provided, including background, music, pictures, and advertisements.

This paper will discuss the importance of atmospherics in facilitating buyer behavior in the online retailing environment. It will show that the online atmosphere can be manipulated (much like that of a bricks and mortar environment) to improve website effectiveness in supporting consumer purchase behaviors. Additionally, it will highlight that the existing models of online atmospherics are incomplete when used to explain real life online shopping scenarios.

Literature Review

Several researchers have studied the effects of the retail atmosphere on buyer behaviour (see Menon and Kahn, 2002; Harrell *et al.*, 1980; Kahn and McAlister, 1997), all implying that the environmental cues a retail environment adopts have a significant effect on shopper responses. Further researchers have developed these theories and applied them to the online retail environment and found similar results. The information that a website provides, whether informative or hedonic, has a similar effect on online consumers, playing an important role in altering their behaviour. Bloch *et al.* (1986) illustrated that consumers generally search for more products in the presence of pleasurable cues and a pleasurable atmosphere. Donovan and Rossiter (1982) suggested that if the initial atmospherics are complex with lots of information, consumers will spend less time searching for products. Menon and Kahn (2002) supported these findings but highlighted that a pleasurable atmosphere will only increase search behaviour if consumers do not have "specific purchase or information search goals," claiming that strong search or purchase goals will minimize the positive effects of pleasurable atmospherics because they are irrelevant to the task at hand. They also discuss that a pleasurable atmosphere is wholly subjective. This means that an understanding of the target market is necessary if one wishes to elicit a positive affect with the use of online cues.

A rather concise model, called the Stimulus-Organism-Response Framework, which incorporates both the effects of individual differences and purchase objectives, was developed by Eroglu *et al.* (2001). In accordance with Menon and Kahn (2002), they proposed that individual differences determine the affect that particular online atmospherics have on consumer behavior. They first suggest that the online atmosphere is classified into two distinct categories – a "high task relevant environment" and a "low task relevant environment" – that have differing stimulus-response effects on shoppers. The high task relevant environment is specifically related to all the information that directly relates to the shopper's goal. This will include merchandise details, the price, navigational aids, and all of the factors of a website that enable a consumer to make an informed decision.

The low task relevant environment includes all the website atmospherical cues that are unrelated to the aims of the shopper. These may be hedonic features that make a shopper's experience more enjoyable, for example, music, bright colours, images, and videos. Although these qualities provide no information directly relevant to the product being purchased, they play an important role in making a website appealing, memorable, and interesting. Other low task relevant environmental cues may include associations with other companies and emphasizing a secure website, both of which can contribute to increasing a consumer's confidence in a website (Bitner, 1992; Moreno and McCormack, 1998) and may further improve their experience. Eroglu *et al.* go on to state that these cues, both relevant and irrelevant, lead to "approach and avoidance behaviors" in consumers as a result of stimulus-response. These responses are in conjunction with the individual differences among consumers. They propose that the "personality characteristics" of "involvement" and "environment responsiveness" will determine whether one has a preference for high or low task relevant cues.

Those individuals primarily concerned with involvement are keen to make an informed product decision based on the information a website provides. Therefore, Eroglu *et al.* imply that these individuals will exhibit avoidance behaviours when confronted with a website with a lot of low task relevant information; the unnecessary cues will interfere with their purchase goal because all they require is "highly relevant content." Atmospheric responsiveness relates to the extent that a consumer will make purchase decisions based on the appearance of the website and the website qualities. It is proposed that shoppers who demonstrate high atmospheric responsiveness will also exhibit avoidance behaviours when on a website displaying a lot of irrelevant information because this distracts them from their goals.

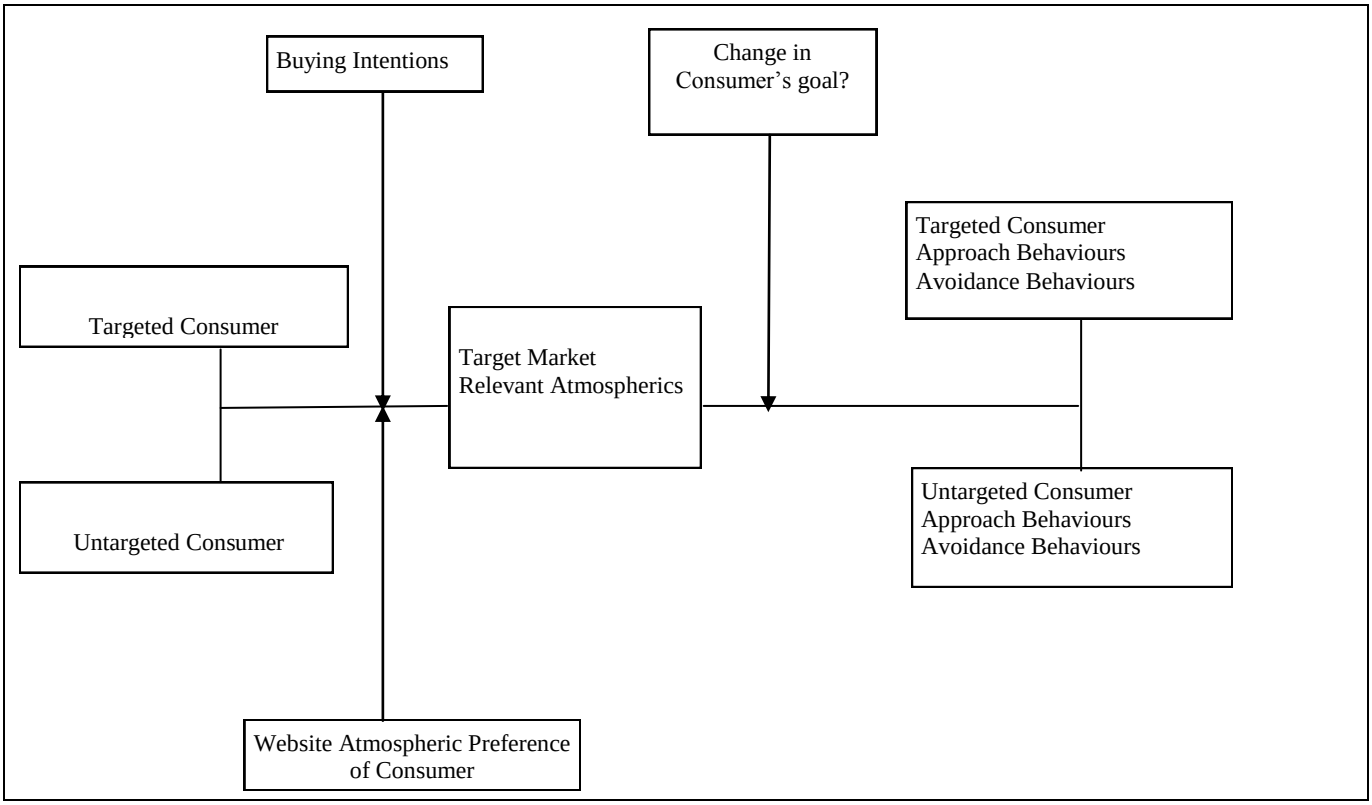
The conclusion drawn from this model is fairly succinct. Online atmospheric cues can either be related or unrelated to the shopper's goals, and the effect of this information will vary depending on the consumer's personality characteristics. If consumers exhibit high involvement and high atmospheric responsiveness, they will tend to favour websites that contain only information relevant to the purchase goal. Consumers who exhibit the opposite characteristics, low involvement and low atmospheric responsiveness, will approach or be less averse to websites with irrelevant information and more hedonic in nature (see Shih, 1998; Holbrook and Hirschman, 1982).

Proposed Conceptual Model

This paper argues that the models proposed by Eroglu *et al.* (2001) and others like it (see Richard, 2004) have over simplified the human aspect in consumer decision making and, as a result, are suggesting managerial implications that may be too generalized. The primary concern is that within these conceptual frameworks, consumers are categorized into two general groups: consumers who are solely focused on buying a particular product and consumers who are less focused, affected by atmospheric cues, and partake in a website search. The issue is that a theory like this discounts that the online atmosphere has any capacity to change consumer attitudes and goal orientation somewhere in the search/purchase process. In a sense, it discounts the effectiveness of the atmospherics/online cues in encouraging consumers to search and the notion of impulse. It can be argued that many consumers regularly enter a website highly involved in their purchase objective with no plans to search for alternatives, yet the effect of the online atmospherics throughout the surfing process results in an attitude and goal change where the consumer now actively begins to search for alternative products or stimuli.

The models also ignore the notion that websites are designed to suit a target market. Companies invest a lot of money in web design so that its appearance is integrated with the brand perception and suits the consumer's needs. The Eroglu *et al*. (2001) model gives the impression that the people viewing websites are random visitors who will either favour the online atmospherics or not. Generally, however, online companies will have a clear perception of their common consumers and, therefore, design their website accordingly. Normally, the amount of task relevant or irrelevant information present on a website is a product of marketing research and an understanding of consumer demands. This is not to discount that websites are visited by new consumers who do not fit the consumer profile and are, therefore, averse to the atmospherics in place. The Eroglu *et al.* model implies that no strategy is formally in place to create repeat and loyal consumers, which is a huge facet of marketing. As a result, this paper proposes a new model (Figure 1) that incorporates the notion of targeting consumers and the possibility of consumer goal change through the website experience.

Figure 1: A Conceptual Model of Online Atmospherics



Targeted Consumer

As discussed previously, many of the existing models of online atmospherics focus on the stimulus-response effects of website stimuli. They illustrate that consumers will only respond positively to online stimuli if they correlate with their goal intentions. This emphasizes the need to target consumers and develop the e-commerce website in accordance with their demands. The issue is, however, that existing models ignore the notion of targeting and only provide enough information to suggest that a preference for website atmospherics is purely down to chance. This reduces their validity in a real world context. It proposes that visitors to a particular website have varied intentions and goals and whether they make a purchase is rather hit or miss. Only those whose goal intentions are aligned with the encountered stimuli end up making a purchase. It can be argued, however, that this is intuitively incorrect on some levels, because it neglects the fact that many consumers share similar goal orientations when shopping for particular products. By knowing this, organizations have the ability to tailor website atmospherics to suit their consumer preferences, thus reducing the hit or miss notion of positive shopper behavioral responses. Although search engines have the capacity to skew the quantity and type of consumers that visit a webpage, visitors to a website generally share certain common characteristics and goals, either as a result of strategic planning by the organization or self selection based on the product being sought.

Buying Intentions

As Wolfinbarger and Gillis (2001) highlight, consumers bargain hunting or auction seeking, for example, will be primarily concerned with the experiential side of the website, demonstrating increased search time and a greater preference for hedonic atmospherical cues. Shoppers wishing to purchase simple items that require little thought and search, on the other hand, will exhibit focused buying intentions and will view the hedonic aspects of the atmosphere as distracting and, therefore, unfavorable. This indicates that consumers possess some pre-existing expectations and preferences with regards to the website and its atmospherics based on the product or service they wish to purchase. This concept is valuable to the application of online atmospherics because it implies a notion of generalization, that visitors to a website are not completely random, and that by understanding these consumer expectations and the relationship they have to the products being sought, an organization can develop the atmospheric cues that are in accordance with consumer preferences. A firm is able to tailor the atmospherics so to maximize consumer satisfaction and purchase behavior through reducing the amount of averse stimuli that the consumer experiences.

Website Atmospheric Preference of Consumer

It will be highly profitable for an organization to understand their consumers' preferences with regards to the website atmosphere. Do consumers require fewer hedonic features and greater product information due to a focused buying intention? Or do they favor the experiential aspects of their Internet search, demonstrating more of an emphasis on surfing, and their involvement in website activities is not necessarily related to product search. It is not enough to simply state that online atmospherics play an important role in determining approach or avoidance behaviors in consumers. The value of this knowledge is only realized if it is used as a means for targeting consumers and aligning website atmospherics accordingly. The optimal result of an understanding of consumer preference and goal orientation should be that only the untargeted consumers visiting the website will potentially demonstrate avoidance behaviors in response to the website atmospherics. A firm should be aware of the buying intentions and atmospheric preferences of the target markets.

Target Market Relevant Atmospherics

It is suggested that organizations need to focus on providing the appropriate atmospherics relevant to the type of product being sold and consumer preferences. The primary motivation should be to remove any task-irrelevant information, the cause of avoidance behavior in consumers (Eroglu *et al.,* 2001). Various sources emphasize the negative effects of a poorly designed website (see Light, 2002; Seneviratne, 2008; Lohse and Spiller, 1998) relating both to its appearance and functionality. Arguably, the contemporary issue is that there is an increasing desire to develop the experiential and aesthetic aspects of a webpage regardless of whether they are relevant to what is being sold or consumer preferences. This may include needless advertising, and confusing layouts and graphics (Social Issues Research Centre, 2006). As Wolfinbarger and Gillis (2001) highlight, organizations are keen to increase their website stickiness by providing various browsing options and points of interest. However, the model proposed in this paper (Figure 1) suggests that strategies such as this will only improve the target consumer experience if it is in alignment with their goal orientation. The website stickiness can be a potential cause of negative affect in consumers if they are have a very focused buying intention and do not wish to be distracted by the many atmospheric cues. With little concern for the experiential side of e-commerce, the amount of website noise may evoke frustration in the consumer by blocking their focused shopping goals.

Therefore, it is proposed that an organization should gain a clear understanding of the target market website preferences and tailor the website accordingly. They should provide the appropriate amounts of information, aesthetics, and suitable functionality based on consumer orientation rather than website trends. The overarching goal should be to provide only the necessary information and stimuli that are in alignment with the target consumer purchase intentions, therefore mediating consumer satisfaction through the successful achievement of shopping goals. Distracting media and advertisements should only be employed if consumers are known to have preference for browsing and website stickiness. With the high degree of competition in e-commerce, it is important to capitalize on the consumers visiting the website by providing the services they require. Consumers may not be concerned with a demonstration that a website has adopted modern capabilities. The organization should provide the relevant atmospherical information that facilitates positive affect and behavior in consumers. Drawing a parallel with offline retailing, if a consumer knows that a particular retailer sells a specific item yet they cannot find it due to overcrowding and the store layout, the sale will be lost and they will try a different retailer. Due to the relatively low switching costs of online retailers, it is important that the website facilitates a sale by providing only information relevant to the consumer's buying intentions so that they do not become frustrated and search elsewhere. The relevance of website atmospherics to consumer preferences is a fundamental tool in gaining a competitive advantage online, and creating consumer satisfaction, loyalty, and long-term relationships (Kotler *et al.,* 2005).

Untargeted Consumers

Due to the role of search engines and web surfing, a firm's website will be visited by individuals demonstrating different goal orientations from that of the target market. With a website tailored to the demands and preferences of the target market, the untargeted consumers are likely to demonstrate avoidance behaviors based on the notion that they will experience aspects of the online atmosphere that are not aligned with their needs or desires. However, it would be a gross generalization to suggest that all untargeted consumers will demonstrate avoidance behaviors. This discounts any capacity for the consumer to change their goals and focus throughout the website experience, whether it comes through the marketing influence of the website or impulsive actions on behalf of the consumer. It is intuitively invalid to believe otherwise.

The proposed model (Figure 1) introduces this notion of goal change, which increases its ecological validity over many of the existing models. It attempts to highlight that a consumer's buying intentions and atmospheric preferences have the capacity to change, either positively or negatively, during a website experience. Eroglu *et al.* (2001), for example, appear to make the assumption that the consumer's goals are consistent throughout the specific online experience. They would argue that if the consumer's goals are not in alignment with the atmospheric cues, they will always demonstrate avoidance behaviors. In the real world this is not necessarily true, because it discounts the notion of impulse and impulse purchasing, and also the effectiveness of many marketing tools that have been so successful in capturing online audience attention.

Change in Consumer Goal

One of the major limitations of the model proposed by Eroglu *et al.* (2001) is its assumption that a shopper's goals will remain the same throughout the atmospherical experience. They fail to acknowledge that atmospherics and website stimuli have the ability to change a consumer's shopping and search goals, implying the many marketing tools employed by websites to capture the consumer's attention are purposeless. This is intuitively incorrect. Bellman *et al.* (2006), for instance, propose that an increased product choice stimulates active search behaviors, and Petrovic (2008) suggests that pricing can motivate product research. This implies that product information within the site may encourage search behavior even if the consumer's initial purchase goals were clearly defined. This is further emphasized by Spool (2002), who claims that 40% of e-commerce purchases are due to impulse decisions, suggesting that site design and category links play an important role in driving impulse purchases. Taking this into account, one can tentatively suggest that website information and atmospherics possess the ability to manipulate shopping intentions, at least in certain situations. It proposes that an individual with clearly defined initial purchase goals, seeking a particular product, for instance, does have the potential to impulse search due to the effects of attractive stimuli within the website. Alternatively, an individual wholly concerned with a goal of rigorous product search and bargain hunting may purchase the first product they observe due to the associated atmospherics. The proposed model (Figure 1) incorporates this notion of a change in shopper goals because it is a common phenomenon in e-commerce. It should not be neglected from an ecologically valid interpretation of the effects of online atmospherics on consumer purchase intentions and behavior. It is particularly valuable to understand if an organization expects many untargeted consumers to visit its website. The assumption, in accordance with Eroglu *et al.* (2001), that consumer goals are concrete and cannot be changed is arguably incorrect and an over generalization. To understand that, as Spool (2002) promotes, website content and design that encourages impulse consumer behavior is valuable in creating revenue from consumers who initially had not planned on purchasing or had different shopping goals than that offered by the website.

Consumer Behavior

Following the effects of the online atmospherics, consumers will either demonstrate approach behaviors, including increased browsing time, "purchase intentions and increased shopping time" (Menon and Kahn, 2002), or show avoidance behaviors by reducing the amount of time spent on a website and they will search elsewhere. The proposed model (Figure 1) emphasizes that consumer approach behaviors can be mediated through aligning website atmospherics with the product type, consumer buying intentions, and consumer preferences. If an organization provides the specific information and atmospherics that shoppers' desire, shoppers are unlikely to be averse to the encountered stimuli and will be able to successfully complete their purchase intentions. The model (Figure 1) also proposes that, although untargeted consumers will not have preferences and goals that necessarily align with the atmospherical strategy, these do have the capacity to change that may lead to impulse purchases. Approach behaviors are necessary for revenue, therefore, they should be a large concern for managers and website designers. Appropriate strategies need to be in place to minimize avoidance behaviors, primarily in the target market, if loyalty and long-term relationships are a concern for the organization.

Conclusion

Contemporary research emphasizes the importance of atmospherics in retail. Much of this relates to the bricks and mortar setting, however, it is becoming apparent that atmospherics also play an important role in online retailing. Researchers first suggest that an online atmosphere exists and, second, that it has the power to alter consumer perceptions and behaviour. It is suggested that if the online atmosphere does not match a consumer's requirements and buying goals then it will have a negative impact on potential sales and consumer presence on a website. If the atmosphere matches the shopper's goals then it has the power to facilitate purchases and to increase browsing and shopping time. Eroglu *et al.* (2001), as well as others, have modeled online atmospherics in an attempt to demonstrate its association with consumer goals.

This paper has proposed a model that is a more ecologically valid interpretation. Although the previous models are intuitively correct and successfully demonstrate the effects of atmospherics on a consumer's cognition and behaviour, it can be argued that they are overly simplified because they ignore the notion of targeting atmospherics to suit consumer preferences. They also make the assumption that the consumer's buying intentions always remain the same throughout a website experience. These two aspects have been incorporated into the proposed model in the hope of making it more applicable to real life online retailing.

The revised model emphasizes the importance of tailoring online atmospherics to the target market to maximize its positive effect. If the atmospherics significantly alter consumer intentions, as all the contemporary research suggests, then it is necessary to provide the relevant information and environmental cues that target consumer expectations. This will hopefully facilitate purchases and positive consumer relationships. The model additionally illustrates that atmospheric cues have the potential to influence change in consumer goals. Considering real life scenarios, it is fairly common for a consumer to have clear shopping goals as they enter a website only to adjust these intentions as a result of online cues. In a bricks and mortar setting, theorists would suggest that in a busy store people will reduce browsing time, for example (see Harrell *et al.*, 1980), yet many on their way out will still look through the sale rack. This demonstrates that consumers are capable of responding positively or negatively to environmental cues even if their initial buying intentions would have predicted different behaviors. Existing models fail to acknowledge this. The model proposed in this paper provides a more ecologically valid interpretation of online atmospherics that will be of more use to organizational decision makers when considering the online content of their retail site. Overall, online atmospherics online play as significant a role as atmospherics offline; therefore, they should be of concern to companies with an online presence and should be applied with a great deal of thought. It is necessary to consider the target market and the relative content when developing a website because, although atmospherics may be thought of only as aesthetic in nature, they can have significant effects on the consumer and consumer purchase intentions.

References

Baker, J. Grewal, D. and Levy, M. (1992) An experimental approach to making retail store environmental decisions. Journal of Retailing 68 Winter (1992), pp. 445–460.

Bellman, S. Lohse, G.L and Johnson, E.J (1999) Predictors of online buying behavior, Comm. of ACM 42 (12), pp. 32–38.

Bellman, S., Johnson, E. J., Lohse, G. L., & Mandel, N. (2006). Designing Marketplaces
of the Artificial With Consumers in Mind: Four Approaches To Understanding Consumer Behavior in Electronic Environments. Journal of Interactive Marketing, 20, 21-33.

Bitner, M.J (1992) Servicescapes: the impact of physical surroundings on customers and employees. J Mark 56, pp. 57–71

Bloch, P.H Sherrell, D.L and Ridgway, N.M (1986) Consumer search: an extended framework. Journal of Consumer Research 13 June pp. 119–126

Burns, E (2005) Online Retail Growth Robust http://www.clickz.com/3507541

Dailey, L. (2001) Navigational web atmospherics: explaining the influence of restrictive navigation cues, J. Bus. Res. 57 (2004) (7), pp. 795–803.

Donovan, R.J and Rossiter, J.R (1982). Store atmosphere: an environmental psychology approach. J Retailing 58, pp. 34–57

Eroglu, S.A, Machleit, K.A and Davis, L.M (2001) Atmospheric qualities of online retailing A conceptual model and implicationshttp://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V7S-4459WMD-G&_user=1069281&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_version=1&_urlVersion=0&_userid=1069281&md5=b1d35d95e521a165462feb74a6b21c55

Eroglu, S.A, Machleit, K.A and Davis, L.M (2003) Empirical Testing of a model of online atmospherics and shopper responses. Psychology and marketing, Vol. 20 No. 2, pp. 139-150

Grewal, D., Baker, J., Levy, M., Voss, G.B. (2003), "The effects or wait expectations and store atmosphere evaluations on patronage intentions in service-intensive retail stores", Journal of Retailing, Vol. 79 No.4, pp.259-68.

Harrell, G.D, Hutt, M.D and Anderson, J.C (1980) Path Analysis of Buyer Behaviour under conditions of crowding. Journal of Marketing Research 17 February (1980), pp. 45–51

Holbrook, M and Hirschman, E (1982) The experimental aspects of consumption: consumer fantasies, feelings, and fun. J Consum Res 9, pp. 132–140

Khan, B.E and McAlister, L (1997) Grocery revolution: the new focus on the consumer, Addison-Wesley, Reading, MA

Kotler, P (1974) Atmospherics as a marketing tool. Journal of Retailing 49 Winter pp. 48–64.

Kotler, P, Wong, V, Saunders, J and Armstrong, G (2002) Principles of Marketing 4th European Edition. Pearson, Essex

Kumar, V and Karande, K (2000) The Effect of Retail Environment on Retailer Performance. Journal of Business Research, Vol 49 (2), pp 167-181

Leggatt, H (2009 Forrester: Growth forecast for 2009 online Retail Sales
http://www.bizreport.com/2009/01/forrester_growth_forecast_for_2009_online_retail_sales.html

Light, A (2002) Poorly Designed Websites Hurt Entire Industry, says Abbey National
http://www.usabilitynews.com/news/article315.asp

Lynch, J.G and Ariely, D (2000) Wine Online: Search Costs Affect Competition on price, quality and distribution
http://www.jstor.org/stable/193260

Lohse, G.L and Spiller, P (1998) Electronic Shopping http://portal.acm.org/citation.cfm?id=278476.278491

Maven, R (2007) Online Retail market 'to triple in five years'
http://econsultancy.com/blog/1257-online-retail-market-to-triple-in-five-years

Mehrabian, A and Russell, J.A (1974). An Approach to Environmental Psychology, MIT Press, Cambridge, MA.

Menon, S. and Kahn, B (2002) Cross-category effects of induced arousal and pleasure on the internet shopping experience http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6W5D-45S914P-3&_user=1069281&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_version=1&_urlVersion=0&_userid=1069281&md5=278e8a56755b603d880199797d8ee9be

Michon, R. Hong, Y. Smith, D and Chebat, J.C. (2008) The influence of Mall environment on female fashion shoppers' value and behaviour. Journal of Fashion Marketing and Management, Vol 12 (4), pp 456-468

Moreno, K and McCormack, S (1998) E-shopping. Forbes, p. 40 (February 9).

Petrovic, D. (2008) Analysis of Consumer Behavior Online
http://analogik.com/article_analysis_of_consumer_behaviour_online.asp

Richard, M.O (2004) Modeling the impact of internet atmospherics on surfer behavior
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V7S-4DXJYSW-1&_user=1069281&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000051272&_version=1&_urlVersion=0&_userid=1069281&md5=42d0ea1a8c9911dc8d24c47f4d971769

Seneviratne, G (2008) An example of how a poor website can effect your business - a business leaders point of view
http://blog.adido-solutions.com/2008/03/example-of-how-poor-website-can-effect.html

Sharma, A and Stafford, T.F (2000) The Effect of Retail Atmospherics on Customers' Perceptions of Salespeople and Customer Persuasion: An Empirical Investigation. Journal of Business Research, Vol 49, 2, Aug pp 183-191

Shih, C.F (1998). Telepresence and bricolage: a conceptual model of consumer experiences in virtual environments. In: Campbell, MC and Machleit, KA, Editors, 1998. 1998 Winter Society for Consumer Psychology Conference Proceedings, p. 231.

Social Issues Research Centre (2008) Poor website design may have negative effects on users' nervous system
http://www.publictechnology.net/modules.php?op=modload&name=News&file=article&sid=7223
Spool (2002) What Causes Customers to buy on impulse? E-commerce White Paper
http://www.uie.com/publications/whitepapers/ImpulseBuying.pdf

Walther, J, (1992) Interpersonal effects in computer mediated interaction: a relational perspective. Commun Res 19, pp. 52–90

Wolfinbarger, M and Gilly, M (2001) Shopping online for freedom, control and fun.
http://www.csulb.edu/~mwolfin/Freedom_Control_Fun.pdf