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Atmospheric tools in commercial spaces creating experiences which influence consumers' mood and behaviour.

'Atmosphere': throughout history we tried to break down its components and analyse them separately to join the results together, hoping that the 'desired' atmosphere' would become the sum of its parts. As yet, however, we have a limited understanding of how specific parameters function in a three dimensional architectural space. The introduction of atmosphere as an important holistic notion is relatively new in the study of retail design. Commercial spaces used to concentrate on products, services and salesmen. Nowadays, the environment comes to play an important role. It is intended to develop a methodology to measure the influence of the retail environment on consumers via the analyses of several retail atmospherics, though the 'research by design' method.

Introduction

The introduction of atmosphere as an important holistic notion is relatively new in the study of retail design. Commercial spaces used to concentrate on products, services and salesmen. Nowadays, when the merchandise carried by competitive retailers is often perceived as similar, the environment comes to play an important role. Furthermore, our shopping behaviour is increasingly experience based as several cases of individual shops, as well as larger scale shopping centres convincingly illustrate. Therefore, creating a unique environment becomes even necessary for customer binding since positive shopping experiences will lead to satisfied consumers, who in the long run will stay loyal. But also, negative shopping experiences can lead to quite severe negative consequences: most consumers do not complain when dissatisfied, they just shop elsewhere.

So, throughout the history of the relationship between design and business, one of the key roles for design always has been to 'make the difference'. This is the more true in the sector of retailing where competition has always been killing. Both through architecture, interior design or product design, the retailer tried to be unique, to attract people and to seduce them to buying. Atmosphere has become a new player in this differentiation strategy.

There are three parts in this study and presently the second part is being undertaken. The first part included a survey of the literature, and in depth interviews with selected experts. As a result, certain hypotheses were developed. The second part is an experiment in a controlled environment –simulation of a supermarket- and subsequently in a real shop environment. Finally, the third part will be the development of guidelines for lighting design in commercial spaces, based on the results of the experiments. The link between research and design will be developed in the final phase.

Brief survey of the theoretical framework¹

Previous research by Kotler (1) explained how atmosphere can influence the consumers' moods and, consequently, their purchase and browsing behaviour. He therefore, coined the term '*atmospherics*' to describe "*the effort to design buying environments to produce specific emotional effects in the buyer that enhance his (/her) purchase probability*". He referred to a five-dimensional experience, based upon our five senses. Later research re(de)defined the term *atmospherics* to 'ambient factors' that emphasized sound (e.g. music), feel (environmentally based, not product based, e.g. crowding, arousal), smell (overall odour) and sight (environment related, e.g. wall colours). Atmosphere has even an influence to such a degree that it can have an equally important effect on the consumer as the quality of the goods themselves (2, 3, 4). Furthermore, research explained the influence of emotions on shopping behaviour (5, 6, 7, 8). But the question remains how to 'activate' shopping via moods, mostly defined as 'pleasure', 'arousal' and 'dominance' (9, 10). In this respect, urban planning and retail design show similarities: an understanding of what will work aesthetically, functionality of concepts and how these will perform commercially as well as a public space within a given budget and cultural background.

Distinction should be made between research in retail environments on a micro level and research on a molar level, based on the theory of Hull and Harvey (11). They define micro characteristics as the physical characteristics of the environment that create a particular atmosphere, such as colour, music, light and sound. Molar characteristics –or the atmosphere

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as such- are defined as “emergent properties” that result from the sum of the micro characteristics. Not much research has focussed so far on the influence of molar characteristics on consumer behaviour because of the difficulty of analyzing a sum of characteristics, which are synergetic and holistic. Conversely, The marketing has focussed upon those micro characteristics, more specific on the environment-emotion link (12,13,14). Big contributions are made in the study of, for example, music in relation to the volume of purchases made (15), the relation between colour and the approach and avoidance behaviour (16); also the affect of odour on time spent in store (17), and the relation between crowding and shopping satisfaction (18).

Turley and Milliman (19) give a complete review of the influence of atmospherics on consumer behaviour. They concluded that the individual atmospheric variables were shown to have a demonstrable affect on the outcome of evaluations (e.g. store image, judgments of brands, quality of merchandise), of perceptions of price and behavioural responses such as time spent and ‘impulse buying’. Several years earlier Tai and Fung (20) already noticed, in their literature review, two important patterns: atmospheric elements have been proven to have a variety of physical and physiological effects on people which in turn will effect consumer behaviour. They suggest when these elements are skilfully manipulated, they will lead to consumer behaviour favourable for the retailer.

The environment response model of Greenland and McGoldrick (21), mapping the influences of the shop environment on its visitors, distinguishes three stages in the user reaction in shop and service environments: a cognitive, an emotional and a conative stage (graphic 2).

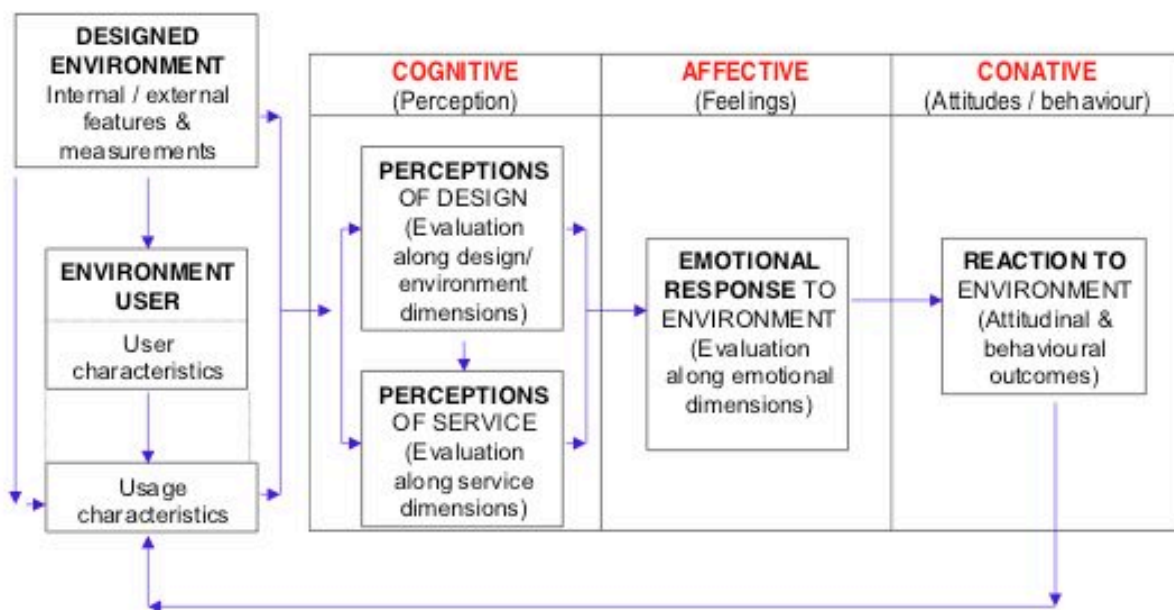


Fig. 1: Environment response model of Greenland and McGoldrick

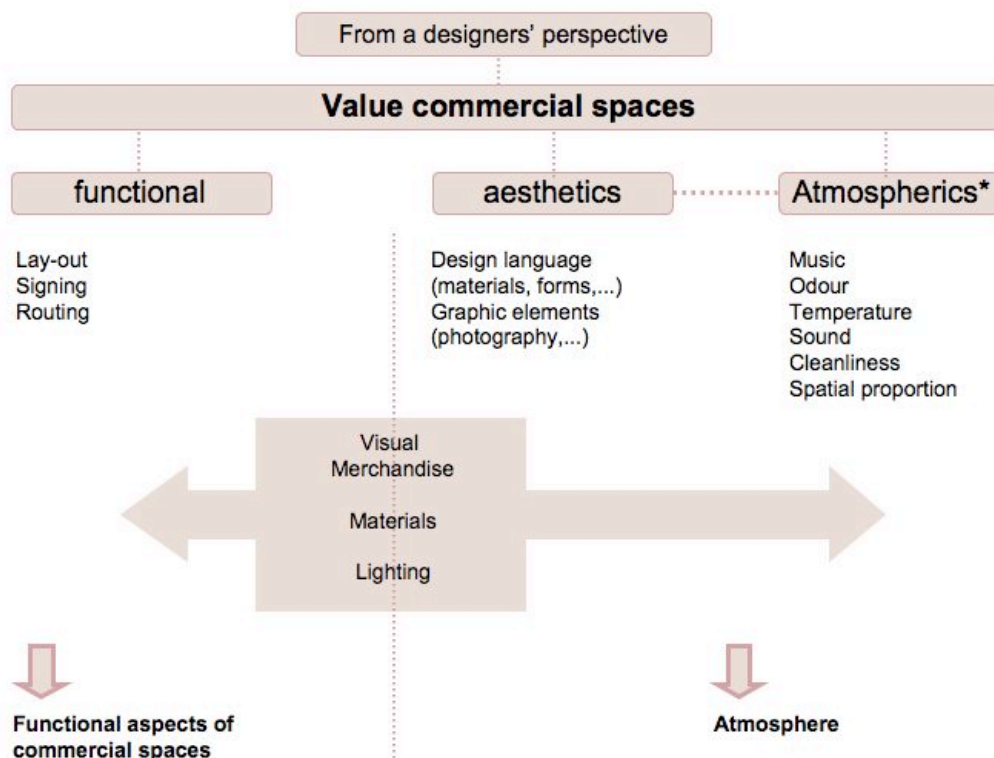
This model can be applied for atmosphere research as well, since atmosphere can be seen as a key component of the shop environment. Greenland describes the cognitive stage as an action or faculty of knowing and perceiving the architectural environment. The emotional factor in his model contains all feelings elicited by the environment, e.g. arousal, pleasure, etc. The third possible influence, ‘conative’, concern attitudes and consumer behaviour. Both the emotional and conative factors are hard to separate and will influence one another. This research aims at finding more information about the interaction between these two factors, while focusing on atmospheric research.

So, atmospherics have been analyzed on a micro level for their influence on buying behaviour and sales numbers, but never from the experience they can create. ‘Experience’ as such, however, was studied from a more environmentally point of view. These studies show that shop environments create ‘retail experiences’ that strongly influences consumers' purchase behaviour (22). Moreover, keeping shoppers longer in stores is likely to result in increased browsing behaviour, which in turn is likely to cause increased impulse purchasing (23). Some research even suggests that up to two third of purchase decisions are made in stores (24).

Despite the value of these studies, for a designer they are difficult to understand because they often are aimed at marketing consultants/researchers. Furthermore, the research results are always an endpoint rather than a bridge to a next stage where possible methodologies for designing a good retail space could be suggested. This study aims at creating a comprehensible theoretical framework that offers both guidelines as well as a design.

A designers’ perspective

Formerly a retail designer, I learned that the true challenge for the retail designer is to create an appropriate atmosphere that meets the needs of retailer, brand and consumer. The atmosphere needs to breathe the brand and attract the consumer on the same time. Finding that balance is the key to good retailing – with the exception of brand stores, which are designed to mainly breathe the brand. The developed concepts during the time as a retail designer, were based on gained knowledge; and creating the right atmosphere was mostly based on experience and a so-called gut feeling. The crossover of several disciplines– psychology, technology, ergonomics, marketing, etc. – presented valuable concepts. Now that the attention turned to Ph.D. research a different approach is needed. Graphic 2 shows the different aspects of a retail space, developed from a designers’ perspective, enhanced with a scientific perspective.



Graphic 2: illustration of the components important for commercial spaces.

*as Kotler (1) defined.

As scientific research is expected to be logical and communicable so that an experiment can be repeated with the same result, architectural research can only meet partially to these expectations since design is subjective and irreducible to rational analysis alone. Lavendhomme (25) states that practising architecture is a discipline that aims at the truth about the structure of a real. Furthermore, he states architecture aims at consistency rather than existence and that it is not a science that aims at a knowing about the functioning of a reality.

Methodology

So, the developed method to determine the influence of the atmosphere on consumers via the analyses of several retail atmospherics is based on a 'research by design' method that defies the structural and logical processes of scientific research. This is a difficult path to walk because architecture is holistic and cannot be narrowed down to a few easily testable variables.

The comparison of the methodology of practice and research is initiated. It will hopefully reveal structures that clear up the mysterious ways of atmospheres in retail environments.

Therefore, a retail-lab is currently under construction at our campus that will host experiments to observe consumer behaviour and to measure mood in order to quantify atmosphere. The design enhances flexibility in use and purpose. For the Ph.D. research, described in this paper, the lab will be designed as a mini-supermarket, but for future research, it can easily be changed into other (retail) settings.

The choice has been made to focus the study on supermarkets. There are three reasons for this: a supermarket offers a whole range of products, from food till non-food, with its own atmosphere qualifications and demands. Secondly, the time spent in supermarkets is relatively high so the consumer has the time to get under the influence of the atmosphere. Finally, the behaviour of the consumer plays an important role in the way he shops and moves through the store. A supermarket offers the ideal situation since it offers enough choice, space and products to play a role in that behaviour.

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