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The Wallpaper Matters:

The Influence of the Content of Digital Ads on Customer in-Store Experience

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Abstract

This paper draws on the construct of brand experience to investigate the previously little-researched role of digital signage (DS) in retail atmospherics. Face-to-face between-subjects survey experiments were carried out at permanent DS installations in the UK: a pretest in a university (n=103); and a field trial at the Harrods department store, London (n=437).

Findings demonstrate effectiveness of a DS sensory-affective ad (little functional information), whereas previous studies concern mainly cognitive content. DS content high on sensory cues evokes affective experience. DS ads high on factual information evoke intellectual experience. Evoked affective experience is more associated with attitude towards ad and approach towards advertiser than is evoked intellectual experience.

Summary statement of contribution

The findings indicate that incidental brand-related stimuli on DS can lead to evaluative judgments such as attitudes. Such stimuli can also work by evoking sensory and affective experiences and eliciting approach behaviour towards an advertiser. Practical implications arise as 'affective' DS ads can increase shoppers' approach towards an advertiser and the store that carries the ads, especially in generating loyalty from first time shoppers.

Keywords: digital signage, experiential message cues, customer experience

Introduction

In recent years, mass media advertising cost-effectiveness has declined, whereas targeted communications have grown (Vranca, 2009). Digital signage (DS) consists of screens in public places showing video (Dennis, Newman, Michon, Brakus, & Wright, 2010). Content may include advertisements, community information, entertainment and news. Between 30% and 40% of category and brand decisions are made in store (Burke, 2009). DS aims to talk to shoppers while they are captive and in the mood to buy (Dennis et al., 2010). Interest in bringing advertisements into stores is growing (Burke, 2009) and many retailers have launched DS networks. DS can also generate substantial advertising revenues (The Economist, 2006). Despite the growth, there remains little scholarly research on DS (Burke, 2009). Newman, Dennis and Zaman (2006) investigated acceptability of DS to shoppers (focus groups in a mall with new DS), reporting that DS creates more modern image, increases enjoyment and provides useful information. A minority considered DS boring and not attention-grabbing. Dennis et al. (2010) reported that DS has significant, positive, total effect on mall consumer spending. Other studies only examine DS in terms of tangible product category and 'appeal characteristics' such as duration of ad (Burke, 2009).

Previous studies treat DS as another atmospheric variable (Dennis et al., 2010). Attitude is the key outcome variable in traditional communication models (DAGMAR (Colley, 1961); Elaboration Likelihood Model (Petty & Cacioppo, 1986); Rossiter and Percy's Grid (1997)). Our objective is to demonstrate that DS works by evoking specific brand experiences first (Brakus, Schmitt, & Zarantonello, 2009), which then positively affect shoppers' 'approach behaviours' (hereafter 'approach') directly and indirectly through attitudes. Therefore, we argue that unique characteristics of DS require a more experiential and less cognitive communication model incorporating experience, applied to product and services brands as our study incorporates both. Services are intangible and cannot be

evaluated in advance so service provider brand (Berry, 2000) is an indicator of quality (Palmer, 2011). DS builds service brands by enhancing shopping experience and building brand for advertisers.

Consumers are generally satisfied with offers of retailers but welcome more product information (Burke, 2002). Retail as entertainment has grown (Pine & Gilmore, 1999). Retailers can use DS to provide product information evoking 'intellectual' brand experience; and spectacle and entertainment evoking sensory and affective dimensions (Brakus et al., 2009). We address the mechanism through which DS creates experiential and functional value by contributing to consumers' experiences, to their (positive) attitudes and ultimately behaviours.

This study contributes to literature concerning how atmospheric cues affect consumers' subsequent cognitions and emotional reactions and approach behaviour (Morrison, Gan, Dubelaar & Oppewal, 2011; Walsh, Shiu, Hassan, Michaelidou & Beatty, 2011). An important issue is to what extent the process between consumers' exposure to an environmental stimulus (e.g. scent or music) and approach behaviour is mediated by cognitions and affect and whether initial reactions are cognitive or affective (c.f. Chebat & Michon, 2003). Results have been ambiguous (Kaltcheva & Weitz, 2006); sometimes affect comes first (e.g., Bosmans, 2006; Demoulin, 2011; Morrison et al., 2011), sometimes cognitions (e.g., Babin, Chebat & Michon, 2004; Chebat & Michon, 2003; Jang & Namkung, 2009; Walsh et al., 2011), perhaps depending on type of stimulus (Morrin & Chebat, 2005).

The present research focuses on the relatively underexplored role of DS as a provider of in-store customer experiences (Schmitt, 1999). Theoretically, we argue (and explore empirically) that the intellectual or affective experience evoked by DS is a mediator between environmental stimulus and attitude towards the stimulus and approach.

In sum, our study contributes to the literature on the influence of atmospheric cues on cognition and affect and on consumer behaviour. The paper reports a pretest and a main study focusing on DS messages advertising a service such as a holiday. The pretest examines whether DS evokes specific experiences in customers that affect approach. The main study examines whether DS is an effective, marketer-manipulable retail atmospheric stimulus that can be used as an experience provider for customers in a real commercial setting. This also goes beyond previous experimental work on cognition and affect, which focused on the allocation of processing resources on a purchase decision rather than on in-store experience (Shiv & Fedorikhin, 1999).

Conceptual Framework

Brand experience in retailing

In retail literature, the term ‘image’ is often used rather than ‘brand’ (Dennis, 2005), with retailers described by more service- and environment-related attributes (e.g. store image) (Chebat & Michon, 2003; Marks, 1976). Shopping is not just obtaining tangible products but also experience and enjoyment (Martineau, 1958). Dennis, Murphy, Marsland, Cockett and Patel (2002) find that service and experiential attributes (e.g. layout, cleanliness, and atmosphere) are more associated with shoppers’ choices than is merchandise. Enjoyment and entertainment are important benefits (Babin, Darden, & Griffin, 1994; Yoo, Park, & MacInnis, 1998), valued by consumers, and reflected in spending (Donovan, Rossiter, & Marcoolyn, 1994).

Marketers can use experience providers – e.g., visual identity, communication, product presence, websites, atmospherics, and service – to create customer experiences (Schmitt, 1999). In marketing literature, the concept of experience appears as shopping, consumption, customer/consumer, service, product, and brand experience (Skard, Nysveen, & Pedersen, 2011; Puccinelli et al., 2009; Verhoef et al., 2009). Notwithstanding, we agree

with Zarantonello and Schmitt (2010) that brand experience spans all contexts in which the concept of experience has been applied in marketing. Service or product experiences refer to specific offerings and shopping experience refers to a specific phase in the consumer cycle. Therefore, we consider brand experience the conceptually broadest experience construct, especially considering that brand could be either product-based or service-based and that both customers and non-customers may have experiences with a brand (Brakus et al., 2009; Skard et al., 2011). An ad and the stimuli that the ad focuses on (e.g. logo, brand characters, verbal slogan, jingle), for example, can evoke a ‘brand experience’ (Schmitt, 2012).

Brakus et al. (2009) focus on multiple sources of brand experiences acknowledging that a series of touch points between the product- or service-brand and the consumer creates the experience. They define brand experiences ‘as subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioural responses evoked by brand-related stimuli that are part of a brand’s design and identity, packaging, communications, and [retail] environments’ (p. 53). The theory of mind modularity (Pinker, 1997) (that the mind is not a universal processor of context-free information, but consists of context-dependant special-purpose computational modules responding to specific environmental cues) inspired the brand experience construct. Sensory experience refers to sensory stimulation; affective experience to moods, feelings, and emotions; intellectual experience to intellectual stimulation (analytical reasoning and/or divergent thinking); and behavioural experience to bodily interactions with the environment.

In this study we exposed respondents to digital ads with functional (i.e. ‘features and benefits’) and sensory-affective content in order to examine whether the content had any effect on their overall shopping experience. The messages are broadcast on Harrods DS network in its flagship store in Knightsbridge, London, UK. To enable empirical testing in a

real shopping environment, we neglect body-based behavioural experiences. The following subsection extends the brand experience construct to DS.

DS as an experience provider

DS networks are relatively new as a retail atmospheric stimulus. Limited prior research on DS has demonstrated that such screens may be considered as experiential cues themselves because they enhance the environment since shoppers perceive them as being high-tech and therefore attractive. Shoppers also welcome information provided by DS (Newman et al., 2006). In line with Schmitt's (1999) notion of experience providers, DS may also be used to build the product- and/or service-brand experience via specific cues and imagery used in the broadcast messages. We focus on ability of in-store DS messages to build service-brand experiences (for a travel agent), in contrast to previous research focusing on tangible products (Burke, 2009).

DS should constitute an effective marketer-manipulable atmospheric stimulus, acting as an experience provider for shoppers (Schmitt, 1999). If the broadcast message is hedonic, the evoked experience will be affective. If it is functional, utilitarian information to help shoppers with decision making, the evoked experience will be intellectual, likely consisting of analytic, convergent reasoning about the service or product.

Brand experiences are inherently valuable and have a positive impact on consumer satisfaction, stated loyalty, and brand-consumer relationship (Brakus et al., 2009; Chang & Chieng, 2006). Eisingerich and Rubera (2010) argue that in western societies brand self-relevance and innovativeness have a greater effect on brand commitment compared to other elements such as customer orientation and social responsibility. Brand self-relevance is a key element in Schmitt's psychological brand model (2012), which has five layers that represent the psychological engagement of consumers with brands. Inner layers represent utilitarian engagement; middle layer self-relevance to consumers; and outer layer social engagement

with a brand. Brand choice can also be influenced by experienced emotions (Esch et al., 2012). When consumers feel emotionally attached to a brand they are likely to be more loyal (Thomson, MacInnis, & Park, 2005) and willing to spend more social and financial resources on it (Park, MacInnis, Priester, Eisingerich, & Iacobucci, 2010). DS messages high in affective content could facilitate affective engagement with a brand and therefore positive approach.

When consumers perceive a brand as a source of compelling experiences, they derive additional perceived value over functional and economic value (Pine & Gilmore, 1999; Schmitt, 2001). When experiences lead to stimulating, pleasurable outcomes, evoked brand experiences should affect not only past-directed satisfaction judgments, but also subsequent behaviour (Brakus et al., 2009). Therefore, evoked experiences should positively affect consumers' attitudes towards the ad and approach towards the advertiser.

Brand attitudes are general evaluations based on beliefs (Fishbein & Ajzen, 1975), while brand experiences result from consumer interactions or communications with (e.g.) ads or shopping environments (Brakus et al., 2009; Chang & Chieng, 2006). Brand experiences are neither belief-based nor evaluative judgments about the brand. Rather, they include internal responses such as sensations, feelings, divergent (imaginative) thoughts and 'approach' as well as convergent (analytical) thoughts triggered by brand-related stimuli (Brakus et al., 2009). Therefore most brand experiences are not cognitive, except for high-order intellectual, analytical thoughts and reasons. Overall brand attitudes are general and do not elucidate the nature of brand experience. However, brand experiences can result in brand evaluations and may develop into attitudes.

So, we predict that DS ads with cognitive content (providing utilitarian information), evoking intellectual brand experience among consumers, will be *directly* associated with increased approach towards the advertiser. Moreover, evoked intellectual experience will be

indirectly associated with increased approach towards the advertiser by positively affecting attitude towards the ad. Similarly, DS ads with affective content (providing hedonic information) will evoke affective brand experience, which will be *directly* associated with increased approach behaviour towards the advertiser. Moreover, the evoked affective experience will be *indirectly* associated with increased approach behaviour towards the advertiser by positively affecting attitude towards the ad.

Consistent with research on pleasant atmospheric stimuli (e.g., music, scent and lighting) on consumers' attitudes during shopping, we predict that the message with pleasant, affective, hedonic cues, unlike the cognitive content, will result in positive attitude towards the ad. Consumers tend to choose to process pleasant, affect-laden incidental cues as they are unlikely to devote sufficient cognitive resources (Shiv and Fedorikhin, 1999). Note that in a previous study on DS, most respondents were unable to recall specific content (Dennis et al., 2010). Therefore, consumers intuitively 'infer' attitude from (positive) affect, using the 'affect-as-information' heuristic (Pham, 2004). Therefore:

H₁ High affective DS ads will result in more affective experience, positive attitudes towards the ad and approach behaviours relative to an ad only high in cognitive content.

H₂ High cognitive DS ads will result in higher utilitarian experiences than an only high affective ad.

In short, we expect both types of ads broadcast on an in-store DS network to work and ads high on sensory or affective cues will work better than those high on intellectual cues. Previous research indicates effectiveness of few sensory stimuli associated with increased spending (e.g. aroma (Chebat & Michon, 2003), and music (Mattila & Wirtz, 2001)). The next section details the method.

Method

We used pleasant imagery including a tropical landscape to provide sensory affective experience, eschewing narrative material (e.g., humorous message) to reduce individual inconsistencies across the sample, caused by the different ways in which participants may perceive a message (e.g. different sense of humour between participants). A commercial specialist created three ads:

- (i) **High-cognitive/low affect (C)**: details and price of a tropical island holiday in mainly text form with the logo of an upscale private travel company;
- (ii) **High affect/low cognitive (A)**: video of a seaplane landing in a beautiful tropical lagoon next to a golden sand beach, with the same logo; and
- (iii) **High cognitive/high affect (CwA)**: combining video and text from the first two.

The ads were pretested to check that they were perceived as intended, before carrying out the main study to test the hypotheses.

Pretest

A between-subjects experiment checked that the (C) and (CwA) ads are perceived more utilitarian than the (A) ad; and similarly that the (A) and (CwA) ads are perceived more hedonic than the (C) ad. A convenience sample (n = 103) of students participated in a general area of a UK university with our ads on DS screens. Subjects were randomly assigned to one of the conditions. Participants were not pre-warned of the topic but asked to imagine a scenario shopping for non-food, aided by a picture of local shops. Initially, participants answered general questions whilst the DS showed neutral content (upcoming seminars etc.) **interspersed with the test content**. Respondents were then asked to rate the extent to which the DS content provided hedonic and utilitarian value. We also included a control low cognitive/low affect condition (only neutral content) but results were trivial due to

insignificant variation between cases. This condition played no further part in the study. Pretest results follow.

Pretest Results

First, the (C) and (CwA) ads are perceived as more utilitarian than the (A) ad; and the (A) and the (CwA) ads are perceived as more hedonic than the (C) ad. There is a significant effect of content on utilitarian evaluations of the ad. Exposing respondents to either (C) or (CwA) significantly increases utilitarian evaluations of the ad compared to (A) whereas there is no significant difference between effects of (C) and (CwA). Similarly, there is a significant effect of the content on hedonic evaluations of the ad. Exposing respondents to either (A) or (CwA) significantly increases hedonic evaluations of the ad compared to (C) whereas there is no significant difference between the effects of (A) and (CwA) (Table 1).

Utilitarian evaluations are significantly greater than hedonic evaluations of the (C) ad. Similarly, hedonic evaluations are significantly greater than utilitarian evaluations of the (A) ad. On the other hand, there is no significant difference between respondents' utilitarian and hedonic evaluations of the (CwA) ad (Table 1).

Regarding approach to the advertiser, there is a significant effect of the content. Exposing shoppers to either (A) or (CwA) significantly increases approach to the advertiser compared to (C), whereas there is no significant difference between effects of (A) and (CwA) (Table 1).

Table 1: Means differences for the pretest.

	Means	ANOVA	t-Test
Content of the ad			
Utilitarian Value	$M_C = 3.79$ $M_A = 2.54$ $M_{CwA} = 3.55$	$F(2, 100) = 20.1^{***}$	C or CwA – A: $t(100) = 6.2^{***}$ C – CwA: $t(100) = -1.14^{***}$
Hedonic Value	$M_C = 1.60$ $M_A = 3.52$ $M_{CwA} = 3.37$	$F(2, 100) = 42.6^{***}$	A or CwA – C: $t(100) = 9.6,^{***}$ A – CwA: $t(100) = -0.66\ ns$
C ad			
Utilitarian Value	$M_C = 3.79$		$t(34) = 14.7^{***}$
Hedonic Value	$M_C = 1.60$		
A ad			
Utilitarian Value	$M_A = 2.54$		$t(33) = 4.8^{***}$
Hedonic Value	$M_A = 3.52$		
CwA ad			
Utilitarian Value	$M_{CwA} = 3.55$		$t(33) = 1.1^{***}$
Hedonic Value	$M_{CwA} = 3.37$		
Approach to the advertiser	$M_C = 1.98$ $M_A = 3.08$ $M_{CwA} = 3.10$	$F(2, 100) = 14.2^{***}$	A or CwA – C: $t(100) = 4.9^{***}$ A – CwA: $t(100) = .06\ ns$

Note: Utilitarian and Hedonic Value 1-5 composite scales, higher numbers more utilitarian or hedonic respectively
Approach to the advertiser 1-5 composite scale, higher numbers stronger intention to approach
 $ns = p > .05$; $*** = p < .001$.

Manipulation was successful. Functional, utilitarian content evoked an intellectual experience among consumers and pleasant, non-functional, hedonic imagery evoked an affective experience. Accordingly, these ads were used in the main study reported in the next section.

Main study

The main study was conducted in the Harrods department store. Shoppers were intercepted near permanently-fitted DS. Respondents were not pre-warned of the DS topic but rather asked to participate in a study about their shopping experience. The stimulus was the same DS advertising as in the pretest; a real service of the upscale in-house private travel company, targeting customers of the store (our respondents). Thereby, our field experiment overcame frequent limitations suggested (Runyan, Kim, & Baker, 2012; Sharma, Sivakumaran & Marshall, 2010; Teller & Dennis, 2012) that atmospheric studies can be less realistic using simulated products, hypothetical suppliers and (only) student respondents. The procedure and measures are reported next.

Design, dependent measures, procedure

Dependent variables were evaluations of DS ads and anticipated approach behaviour towards the advertiser. As before, we tested (C), (A) and (CwA) ads using a between-subjects design (146, 137, and 154 respondents respectively; n = 437).

The questionnaire concerned themes: (i) travel agent affective/sensory brand experience; (ii) travel agent intellectual brand experience; (iii) attitude to the ad; and (iv) anticipated avoidance-approach behaviour towards the advertiser. Scales were adopted or adapted from previous studies (Table 2). Items assessing the affective, sensory and intellectual experiences were adapted from the brand experience scale (Brakus et al., 2009), developed for product-brands as sources of experiences (also adapted and validated for service-brands (Chang & Chieng, 2006; Skard et al., 2011)). We also measured anticipated spending and number of items expected to be bought on that visit. Main demographics of sub-samples were similar.

Table 2: Measurement Scales

Dimensions and Items	Adopted/adapted from
Intellectual brand experience (utilitarian). $\alpha = .965$; CR = .964 ($\alpha = .836$; CR = .829)	
If I were planning to buy a holiday, the advert would help me to make a better decision	Fiore et al. (2005); Hoch & Ha (1986)
Viewing the advert provides information that would be helpful in buying a holiday	Fiore et al. (2005); Hoch & Ha (1986)
If I were planning to buy a holiday, the advert would help me to find what I was looking for	Babin et al. (1994)
Viewing the advert gives me more information about holidays and travel	Babin et al. (1994); Fiore et al. (2005); Newman et al., (2006)
If I were planning to buy a holiday, the advert would help me to find what I was looking for	Babin et al. (1994)
The advert stimulates my problem solving ¹	Brakus et al. (2009)
I engage in a lot of thinking when I encounter an advert like this one ¹	Brakus et al. (2009)
Viewing the content about the travel agent would provide utilitarian value (practical or functional) if I were planning to buy a holiday ¹	Leclerc et al. (1994)
Affective brand experience (hedonic). $\alpha = .965$; CR = .957 ($\alpha = .938$; CR = .899)	
Viewing the advert provides entertainment	Dennis et al., 2010
Viewing the advert is pleasurable	Dennis et al., 2010; Leclerc et al. (1994)
The advert induces feelings and sentiments	Brakus et al. (2009)
This is an affective advert	Brakus et al. (2009)
Viewing this content is truly a joy ²	Babin et al. (1994)
Viewing this content felt like an escape ²	Babin et al. (1994)
I enjoyed viewing this content for its own sake, not just for the items I may purchase ²	Babin et al. (1994)
When viewing this content, I enjoyed being immersed in an exciting new holiday ²	Babin et al. (1994)
Viewing this advert whilst shopping is a very nice time out ²	Babin et al. (1994)
Attitude towards the DS ad. $\alpha = .927$; CR = .926	
What do you think of the sensory appeal of the advert?	Brakus et al. (2009)
What do you think of the visual impact of the advert?	Brakus et al. (2009)
I would describe the advert (rather than the advertiser) as: (very poor – very good)	Leclerc et al. (1994)
I would describe my attitude towards the advert (rather than the advertiser) as: (dislike very much – like very much)	Dennis et al., 2010; Leclerc et al. (1994)
I would describe the advert (rather than the advertiser) as: very commonplace – very distinctive	Newman et al., (2006)
Viewing the content affects my shopping trip in a ... way (very negative – very positive) ³	Leclerc et al. (1994)
Viewing the content motivates me to search for a specific product or service in the store ³	Newman et al., (2006)
Advertiser avoidance / approach. $\alpha = .953$; CR = .915 ($\alpha = .927$; CR = .924)	
After viewing the advert, I will be likely to use the advertiser more often	Donovan et al. (1994)
After viewing the advert, I am more interested in the advertiser than I was previously	Donovan et al. (1994)
The advert enhances my feelings towards the advertiser	Brakus et al. (2009)
After viewing the advert, I would describe my attitude towards the advertiser (rather than the advert) as: (dislike very much – like very much)	Leclerc et al. (1994)
After viewing the advert, if I were planning to buy a holiday I would be more likely to book with the advertiser ¹	Leclerc et al. (1994)
After viewing the content, I am likely to spend more money on travel requirements with that travel agent ¹	Chebat & Michon (2003); Dennis et al., 2010

Notes. Five-point Likert (anchored by disagree strongly – agree strongly) or semantic differential.

α =Cronbach alpha, CR=Composite reliability (*Pretest*)

¹Item dropped from analysis of pretest.

²Item not included in main study.

³Item dropped from analysis of main study.

When respondents started the questionnaire, the DS was visible and the loop running, including test content. During any delay before test content started, respondents answered general questions, and then were asked to view the test ad. Using forced exposure to the ad constitutes a limitation but the benefit of the design is the real ad creative presented on a real

ad platform to real shoppers in a real field situation. They were then asked DS questions followed by approach/avoidance questions. The main study results follow.

Main study results

Manipulation Check. (C) and (CwA) ads are perceived as more utilitarian than (A); and similarly (A) and (CwA) are perceived as more hedonic than (C). Exposing shoppers to **either** (A) or (CwA) significantly increases hedonic evaluations of the ad compared to (C) but there is no significant difference between effects of (A) and (CwA). Similarly, exposing shoppers to **either** (C) or (CwA) significantly increases shoppers’ utilitarian evaluations of the ad compared to (A), but there is no significant difference between the effects of (C) and (CwA) (Table 3).

Utilitarian evaluations are significantly greater than hedonic evaluations of (C). Hedonic evaluations are significantly greater than utilitarian evaluations of (A). There is a small, conceptually irrelevant difference between shoppers’ utilitarian and hedonic evaluations of (CwA) ad (Table 3).

Table 3: Main Study Manipulation

	<i>Means</i>	<i>ANOVA</i>	<i>T Test</i>
Content of the advertisement			
Utilitarian Evaluations	M _C = 3.22 M _{CwA} = 3.36 M _A = 2.10	F(2, 434) = 55.3***	C or CwA – A: t(434) = 4.41*** C – CwA: t(434) = 1.06ns
Hedonic Evaluation	M _C =1.77 M _A =3.54 M _{CwA} =3.53	F(2, 434) = 161.6***	A or CwA – C: t(434) = 19.9*** A – CwA: t(434) = -.19ns
C ad			
Utilitarian Evaluation	M _C = 3.22		t(145) = 14.8***
Hedonic Evaluation	M _C = 1.77		
A ad			
Utilitarian Evaluation	M _A = 2.10		t(136) = 12.2***
Hedonic Evaluation	M _A = 3.54		
CwA ad			
Utilitarian Evaluation	M _{CwA} = 3.36		t(153) = 2.2*
Hedonic Evaluation	M _{CwA} = 3.53		

Note: Utilitarian and Hedonic Value 1-5 composite scales, higher numbers more utilitarian or hedonic respectively. Approach to advertiser 1-5 composite scale, higher numbers stronger intention to approach. ns = p > .05; * = p < .05; *** = p < .001.

Attitude towards the Ad and Approach towards the Advertiser. Exposing shoppers to **either** (A) or (CwA) significantly increases attitude to the ad compared to (C), but there is no significant difference between effects of (A) and (CwA). Exposing shoppers to **either** (A) or (CwA) significantly increases approach to the advertiser compared to (C). In both cases there is no significant difference between effects of (A) and (CwA) (Table 4).

Shopping Outcomes. There is a significant effect of content on shopper expected spending on this trip to the store. Exposing shoppers to **either** (A) or (CwA) significantly increases expected spending. The effect remains after controlling for classification variables for which spend varies, i.e. age and first visit or not ($F(2, 414) = 3.19, p < .05$). There is also a significant effect of the content on expected number of items bought by shoppers on this trip. Exposing shoppers to **either** (A) or (CwA) significantly increases expected number of items bought. The effect remains after controlling for the classification variable for which items bought varies, first visit or not ($F(2, 414) = 4.22, p < .05$). There is no significant difference between effects of (A) and (CwA) (Table 4).

Table 4: Effect of ad content

	<i>Means</i>	<i>ANOVA</i>	<i>T Test</i>
Attitude towards ad#	$M_C = 2.52$ $M_A = 3.12$ $M_{CwA} = 3.08$	$F(2, 434)=46.9***$	A or CwA – C: $t(434)=9.69***$ A – CwA: $t(434)=-.29ns$
Approach to advertiser#	$M_C = 2.21$ $M_A = 3.99$ $M_{CwA} = 4.05$	$F(2, 434)=171.1***$	A or CwA – C: $t(434)=16.8***$ A – CwA: $t(434)=.71ns$
Expected spending##	$M_C = 2.39$ $M_A = 2.71$ $M_{CwA} = 2.67$	$F(2, 434)=3.275*$	A or CwA – C: $t(434)=2.55**$ A – CwA: $t(434)=-.29ns$
Expected number of items bought##	$M_C = 2.90$ $M_A = 4.07$ $M_{CwA} = 4.51$	$F(2, 434)=3.53*$	A or CwA – C: $t(434)=2.53*$ A – CwA: $t(434)=.72ns$

#1-5 composite scales.

##1-5 scales with coding redacted for commercial confidentiality.

ns = $p > .05$; * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

First-time vs. Non-first-time Visitors. Demographics did not influence evoked experiences, attitudes or approach significantly. There are minor differences according to

whether shoppers are visiting London as tourists, who may have more positive evaluations, which are crystallized for shoppers for who visit Harrods for the first time, for whom variables are higher (except that utilitarian evaluation of (A) is lower for first visit). There is a significant main effect of first-time vs non-first-time visitors on approach to advertiser ($F(1, 409) = 7.1, p < .01$) (but the interaction effect between the type of ad and first-time vs non-first-time visitors is non-significant ($F(2, 409) = 1.1, ns$) (Figure 1). Shoppers may be enthralled by the new experience on their first visit and prone to higher ratings.

Table 5: First visit vs. not first visit to the store.

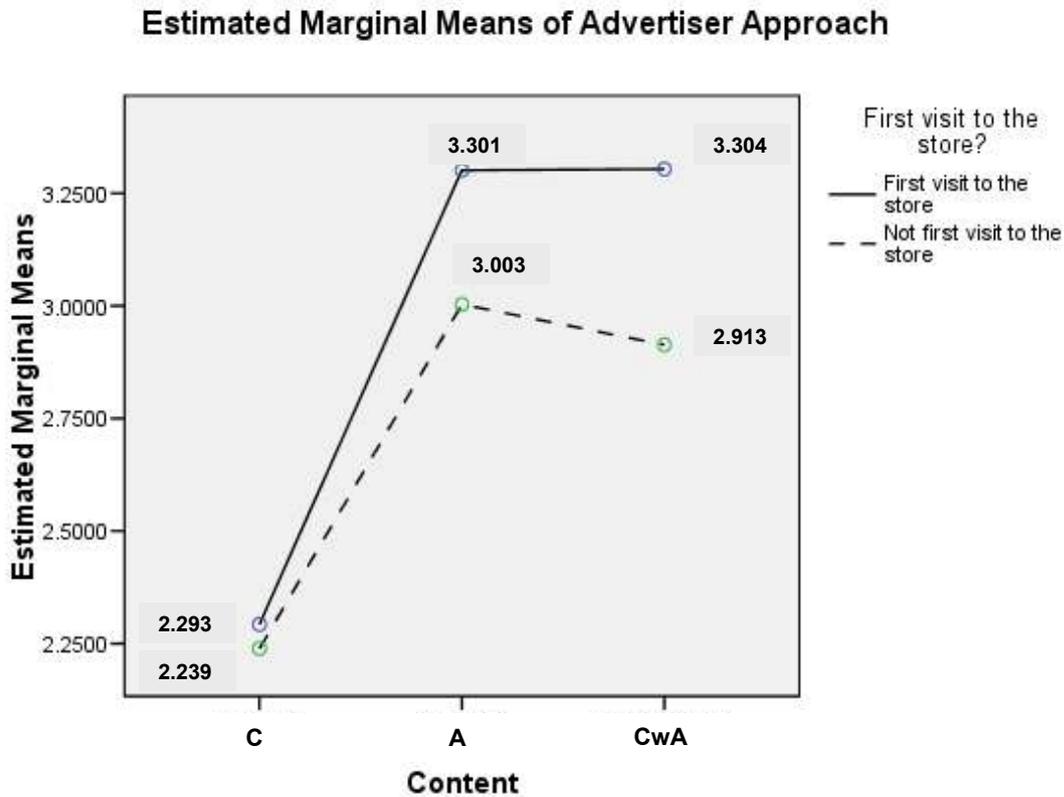
	(C)		(A)		(CwA)	Total
Hedonic value						
First visit	1.823	<i>t(105.12#)= 14.04***</i>	3.574	<i>t(88.18#)= 1.90ns</i>	3.932	3.291
	<i>t(132)= .10ns</i>		<i>t(97.7#)= .44ns</i>		<i>t(137.2#)= 4.60**</i>	<i>t(413)= 4.19**</i>
Not first visit	1.809	<i>t(226.7#)= 12.58***</i>	3.487	<i>t(149.2#)= 1.78ns</i>	3.183	2.768
Utilitarian value						
First visit	3.566	<i>t(162)= 4.47***</i>	1.793	<i>t(162)= 11.36***</i>	3.780	3.076
	<i>t(88.52#)= 2.36ns</i>		<i>t(131)= 2.69*</i>		<i>t(140.7#)= 4.43**</i>	<i>t(413)= 2.10ns</i>
Not first visit	3.101	<i>t(183.3#)= 3.02**</i>	2.276	<i>t(140.7#)= 4.28***</i>	3.026	2.817
Attitude towards the ad						
First visit	2.654	<i>t(162)= 12.15***</i>	4.181	<i>t(162)= .37ns</i>	4.229	3.822
	<i>t(132)= .75ns</i>		<i>t(130.1#)= 3.15*</i>		<i>t(146)= 2.79*</i>	<i>t(413)= 4.46**</i>
Not first visit	2.520	<i>t(247)= 12.21***</i>	3.846	<i>t(247)= .25ns</i>	3.879	3.363
Approach/avoidance to advertiser						
First visit	2.293	<i>t(162)= 6.73***</i>	3.301	<i>t(162)= .02ns</i>	3.304	3.052
	<i>t(132)= .32ns</i>		<i>t(131)= 1.90ns</i>		<i>t(146)= 2.53ns</i>	<i>t(413)= 3.65**</i>
Not first visit	2.239	<i>t(247)= 5.75***</i>	3.003	<i>t(247)= .59ns</i>	2.913	2.691

Note: Means in **bold**. *ns* = $p > .05$; * = $p < .05$; ** = $p < .01$; *** = $p < .001$. #Adjusted for non-equality of variances (Levine statistic $p < .05$).

t-Tests comparing means for shoppers for whom this is their first visit vs. those not on first visit are indicated between rows in *italics*; Bonferroni-corrected p -values based on five *post hoc* variables.

Contrasts between (A)vs.(C); and (CwA)vs.(A) respectively are between columns *also in italics*.

Figure 1: Approach to advertiser (travel agent) for the three ads X whether first visit to the store



Discussion and conclusions

This study has demonstrated that DS is an effective, marketer-manipulable retail atmospheric stimulus. Well-designed ads that play to the strength of DS with moving, pleasant images can increase shoppers' approach behaviour towards an advertiser and the total service experience. Stopping customers and asking them to view an ad may well be a contributing factor to this experience effect, yet that was the same for each of the ad conditions. Findings are more conclusive than previous studies, which have been based either on a small qualitative sample (Newman et al., 2006) or a questionnaire survey in a single condition (Dennis et al., 2010).

The findings are theoretically important because they demonstrate the effectiveness of a DS ad that stimulates pleasure (little functional information), and evokes affective

experience. Previous studies have concerned more functional, ‘features-and-benefits’ content and have mainly focused on tangible products (Burke, 2009). Evoked affective experience seems to be a stronger predictor of approach behaviour than evoked intellectual experience. Moreover, customers’ affective experiences are more strongly associated with positive attitudes and approach behaviour than are cognitive based experiences. This is consistent with ‘primacy of affect’ – when consumers allocate few processing resources, as towards DS incidental informational cues, they are more likely to be led by their ‘hearts’ than ‘heads’. Consumers often make decisions by misattributing ‘evaluation of’ as ‘liking’ (Pham, 2004) affect-laden options; and allocating insufficient deliberative processing resources to assess and reason about ‘functional’ features of the same options (Shiv & Fedorikhin, 1999).

In retail DS, deliberation may be relatively low (in the Dennis et al. (2010) study, most respondents were unaware of having viewed specific ads – yet still considered DS contributed to positive image). This lends emphasis to our finding of the strength of the evoked affective experiences. DS, evoking affective, sensory brand-experience, provides a different theoretical explanation of how marketing communications influence consumers than the one that existing mass-media models provide. Our study has strong theoretical implications, suggesting that brand-related stimuli in store DS trigger not only deliberative processes and brand attitudes; but they also evoke experiences that stimulate senses, evoke feelings and elicit approach behaviour (Brakus et al., 2009). In contrast, the theoretical focus of the traditional communication models (DAGMAR (Colley, 1961); Elaboration Likelihood Model (Petty & Cacioppo, 1986); Rossiter and Percy’s (1997) Grid) has concerned attitudes, rather than experiences. Such models assume that processing of communication messages is mostly deliberative, resulting in high-order responses including elaborations, categorizations, inferences, recall, arguments and counter-arguments. Based on those responses, consumers construct attitude towards the message and then towards the advertised brand.

The findings of this study have strong managerial implications because DS can have two beneficial effects for a retailer. The first effect is the communication effect; that is, the cues contained in the broadcast messages evoke specific experiences in customers that, in turn, positively affect the attitude towards the advertiser and consumers' approach behaviour. This is especially true if the messages contain affective or a mix of affective and intellectual cues. Second, DS has an additional 'umbrella effect'. That is, it enhances the shopping experience (note that we told our respondents that the study 'concerned the shopping experience') which, in turn, results in an increase in intended spending (the umbrella effect). This result is consistent with Brakus et al. (2009) who claim that evoked experiences are inherently valuable for consumers. If consumers desire to make an experience last longer, that desire could affect the length of stay in the shop and the purchase intentions or other outcome variables (see Brakus et al. (2009) for effect of experience on satisfaction and loyalty; Iglesias, Singh, & Batista-Foguet (2011) for effect on propensity to recommend; and Stuart-Menteth, Wilson, & Baker (2006) for effect on affective commitment). Moreover, the particular attractiveness of DS ads to shoppers on their first visit to the store may have important implications for store loyalty by generating repeat business. This addresses Puccinelli, Deshpande and Isen's (2007) question of whether the effect of store atmospherics is greater on newcomers.

The study is subject to limitations. The samples in the pretest and the main study had different socioeconomic and demographic characteristics as participants in the pretest were younger with less disposable income. This could have led to differences in the types of holiday of interest. However, the manipulation test in both the pretest and the main study generated similar conclusions. Therefore, we believe that the different characteristics of the two samples did not influence the results.

A second limitation is that shoppers were asked to view the DS. They may not have perceived it if it had only been wallpaper as DS has to compete with other stimuli in the store. However, the affective ad carried no cognitive information which thus effectively forced superficial 'wallpaper' processing. We recommend further research into the effects of natural (rather than forced) wallpaper or peripheral processing.

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