

Online servicescapes, trust, and purchase intentions

Lloyd C. Harris

Warwick Business School, Coventry, UK, and

Mark M.H. Goode

Swansea School of Business and Economics, Swansea, UK

Abstract

Purpose – The purpose of this paper is to present and discuss a conceptual model of purchase intentions, trust, and e-servicescape that presents online physical environments as comprising three dimensions. It aims to develop and extend existing research into physical service environments through proposing, operationalizing, and testing a model of online servicescape.

Design/methodology/approach – The study utilizes a survey approach to gather data regarding consumers' perceptions of online servicescape. Surveys were administered to 257 respondents regarding a broad range of web sites.

Findings – A measure of e-servicescape is evaluated that comprises three dimensions and 52 items while relationships between the dimensions of e-servicescape, trust, and purchase intentions are described.

Research limitations/implications – The first contribution of this study stems from the successful operationalization of a comprehensive multi-item (in total 52 items), multi-scale (nine scales), multi-dimensional (three) measure of e-servicescape. Second, a contribution is made through the finding that trust constitutes a key variable during online exchange. Third, we contribute insights into the antecedents of consumers' purchase intentions. Finally, the study reveals that consumers' interpretations of online environments exert a powerful influence over trust and purchase intentions.

Originality/value – The findings of this study also have numerous implications for both services managers and internet developers. The findings supply valuable insights into which factors practitioners should focus their attention to better tailor their approaches. This study strongly endorses the view that the loyalty intentions of online customers are linked to the extent to which they trust the service provider.

Keywords Internet, Service levels, Trust, Purchasing, Retailing

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

Introduction

Studies indicate that e-commerce is expanding at a tremendous rate, fueled by the unparalleled growth in the numbers of online retailers at the start of the millennium and concurrent with the continuing exponential growth in the volume of online shopping with sales predicted to grow by 27 percent in 2004 from 2003 to reach \$144 billion for online US retailers (see Shop.org and Forrester Research, 2004). Nevertheless, commentators have observed that most e-tailers fail to make profits, that the vast majority of online shoppers are extraordinarily fickle, and that many consumers distrust e-tailing and in particular online payments systems (Hoffman *et al.*, 1999; Harris and Goode, 2004). Given the widespread nature of such views, it is perhaps not surprising to find a growing body of research that is identifying and exploring the myriad of factors that may account for the attitudes and behaviors of online shoppers (e.g. Szymanski and Hise, 2000;

Srinivasan *et al.*, 2002). Such insights have prompted leading commentators to argue that generating e-loyalty is dependent on first developing consumer trust in the supplier (e.g. Stewart, 2003; Yen and Gwinner, 2003; Goode and Harris, 2007).

In ongoing efforts to elucidate the motivations, intentions, and behaviors of e-customers, researchers use a wide variety of concepts and constructs (such as "satisfaction", "value," and "loyalty") originally conceived and developed in offline contexts (see Szymanski and Hise, 2000; Lynch *et al.*, 2001; Harris and Goode, 2004). Following this tradition, the physical environment of online retailers, that have variously been labeled "cybermarketscapes" (Venkatesh, 1998), "e-scapes" (Koernig, 2003), or "online atmospherics" (Eroglu *et al.*, 2003), has been theorized to constitute a significant factor in online exchange. However, despite insightful conceptualizations of offline servicescapes (e.g. Bitner, 1992), to date, online measures of servicescape that incorporate the idiosyncrasies of online exchange and dynamics have been lacking (Ezeh and Harris, 2007; Harris and Ezeh, 2008). Consequently, commentators from a diverse range of academics have noted that further research is needed into the nature and effects of online physical environments (e.g. Fiore and Jin, 2003; Schiffman *et al.*, 2003), or what we

The current issue and full text archive of this journal is available at www.emeraldinsight.com/0887-6045.htm



Journal of Services Marketing
24/3 (2010) 230–243
© Emerald Group Publishing Limited [ISSN 0887-6045]
[DOI 10.1108/08876041011040631]

Received: November 2007

Revised: April 2008

Accepted: July 2008

term “e-servicescape”[1], denoting the online environment factors that exist during service delivery.

We aim to develop and extend existing research into physical service environments through proposing, operationalizing, and testing a model of online servicescape. This process should also supply insights into the idiosyncratic nature of online retailing. As such, this study aims to provide insights into how consumers’ interpretations of e-servicescape affect their subsequent evaluations of web site trustworthiness and ultimately their intentions to repurchase. In this regard, our objectives are designed to contribute to theory through conceptualizing and operationalizing e-servicescape, and its relationships with trust and purchase intentions while generating useful implications for online practice (particularly in relation to the development and management of online physical environments).

First, we forward a conceptual model of purchase intentions, trust, and e-servicescape that presents online physical environments as comprising three multi-faceted dimensions. Thereafter, we describe the research design, methodology, and the approach adopted. After presenting our results and evaluating our model, we conclude our study with a discussion of the implications of our findings and the forwarding of potentially interesting directions for future research.

E-servicescape, trust, and purchase intentions: a conceptual model

Baker (1987) proposes that the physical environment of services are gauged by consumers in relation to ambient, design, and social factors (a conceptualization empirically evaluated subsequently in a number of studies, see for example Baker *et al.*, 2002). In contrast, Bitner (1992) coins the term “servicescape” and presents a conception of servicescape as comprising ambient conditions, layout and functionality, and signs, symbols, and artifacts. Later studies have adapted this conceptualization to various offline contexts, an interesting example being the work of Wakefield and Blodgett (1996) that focuses on the servicescape of leisure service settings.

Nevertheless, while advances have been made in conceptualizing and understanding offline servicescapes, the online context has been comparatively neglected (see Koernig, 2003). Wolfinbarger and Gilly (2001) use focus groups to uncover four dimensions along which consumers evaluate web sites (convenience, selection, informativeness, and lack of sociality). In contrast, Szymanski and Hise (2000) find significant links between convenience, merchandising, site design, financial security, and e-satisfaction. Similarly, Zeithaml *et al.* (2002) argue that online service quality includes efficiency, fulfillment, and privacy dimensions. Further, Srinivasan *et al.* (2002) forward a framework of the antecedents to e-loyalty comprising customization, contact interactivity, cultivation, care, community, choice, convenience, and character dimensions. However, while such studies of online service have contributed useful insights into the aspects of online service that are linked with performance outcomes (such as satisfaction, service quality, and loyalty), insights into the nature and dynamics of online service settings (e-servicescape) are typically indirect and often secondary to the central focus of the

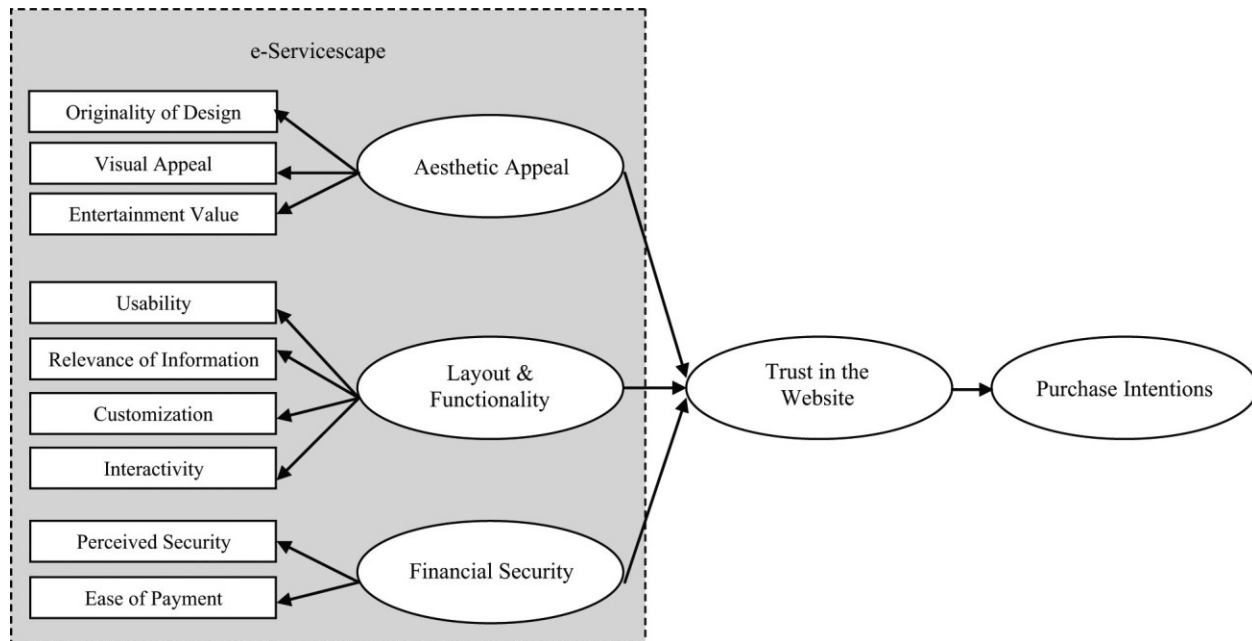
studies. In this way, scholars have failed to focus directly on the e-servicescape construct.

Given the lack of an existing conceptualization of e-servicescape, this paper presents a framework of online servicescape as comprising three dimensions (aesthetic appeal, online layout and functionality, and financial security). This three dimension view of e-servicescape is forwarded for three main reasons. First, this view of e-servicescape draws on the original work of Bitner (1992) in that two of the dimensions can be broadly equated, whilst Bitner’s (1992) third dimension (signs, symbols, and artifacts) is replaced by financial security (an issue widely accepted as more critical during online exchange). In this way, we replace Bitner’s (1992) third dimension that largely focuses on tangible factors in a brick-and-mortar context, with the dimension of financial security that various commentators have argued to be more important in the online environment (e.g. Szymanski and Hise, 2000; Zeithaml *et al.*, 2002). In this way, the conceptualization of e-servicescape presented can be viewed as an incremental development of offline conceptions. Second, in addition to building on such offline conceptions, the three dimensions forwarded constitute a critical synthesis of context-specific studies in that the three dimensions are sufficiently broad to encompass the wide range of online environmental factors presented in earlier studies (e.g. Wolfinbarger and Gilly, 2001; Szymanski and Hise, 2000; Srinivasan *et al.*, 2002; Zeithaml *et al.*, 2002). In this way, the three-dimensional view of e-servicescape can be claimed to be grounded in context-specific studies. Third, through conceptualizing e-servicescape as a three dimension construct, each of which comprising multiple dimensions, a view of e-servicescape is presented that is not only “broad” but also “deep” in the sense that each individual dimension is conceived as comprising multiple sub-dimensions.

As indicated earlier, we define “e-servicescape” as the online environment factors that exist during service delivery. In order to steer the subsequent review and discussion, a figure depicting the key concepts included in the study is provided in Figure 1. Our rationale for linkages between individual concepts and further details of theory, on which we rely, is outlined below.

Before reviewing literature regarding linkages between individual dimensions of e-servicescape and trust, it is worthwhile to clarify why trust is presented as the “outcome” of online physical environments and fundamental to e-shopping. First, recent theory has argued that not only is trust pivotal to online exchange (e.g. Yen and Gwinner, 2003) but also that trust is central to online service dynamics (see Harris and Goode, 2004). Second, consistent with the general consensus of theorists, practitioners have also positioned trust as highly important; a fact evidenced by the wide range of programs designed to build trust – TRUSTe and BBOn-Line being especially well known – see Luo, 2002). Finally, studies of consumers find that the most important issue that consumers evaluate when contemplating online exchange is trustworthiness (see Fusaro *et al.*, 2002). Thus, while recognizing that online exchange is affected by a wide range of factors, theorists, practitioners, and consumers appear consistently to present perceived trust as essential to online shopping intentions.

Online aesthetic appeal refers to online ambient conditions and to the extent to which consumers interpret the servicescape as attractive or alluring. In this way, the

Figure 1 The hypothesized model linking e-servicescape, web site trust, and purchase intentions

dimension of “online aesthetic appeal”, in part, mirrors Bitner’s (1992) servicescape dimension of (offline) “ambient conditions”. A review of existing research reveals a range of studies that suggest that aspects of web site aesthetic appeal and design are important components of online servicescapes (e.g. Zeithaml *et al.*, 2002; Grewal *et al.*, 2003; Montoya-Weiss *et al.*, 2003). In this regard, Evans and King (1999) stress that while online audio-videos could be viewed as important auditory and visual cues, differences in consumers’ computer hardware complicates and often negates potential effects. Thus, in an online context, site and page graphics constitute a pervasive and powerful force (e.g. Dreze and Zufryden, 1997). This view is concordant with a range of studies that suggest that the nature, size, overall presentation, and number of online images are important considerations (e.g. Ekhaml, 1996). Similarly, a number of web site designers have observed that the appropriate use of suitable backgrounds (e.g. Callahan, 2001) and consistent typography (e.g. Ekhaml, 1996) are significant factors in the overall visual appeal and perceived originality of pages and sites. Commentators have also argued that color is an important factor, often suggesting that the use of colors be prescribed (e.g. Flanders, 1996) with varying colors used for different functions (e.g. Nicotera, 1999). Thus, Fusaro *et al.* (2002) contend that the perceived modernity of design is a crucial component of online environments and particularly so for more experienced online shoppers. These and other observations lead both Chen and Chang (2003) and Mathwick *et al.* (2002) to argue that e-consumers appraise, reflexively evaluate, and subsequently value highly (trust) the level of entertainment of online environments. These and other insights lead D’Angelo and Little (1998) to conclude that a wide range of web page visual characteristics affect the user of a page and argue that online organizations should consider how such aesthetic factors affect the communication and exchange process.

This is strongly supported by recent empirical results that link aspects of aesthetic appeal to both service quality perceptions (Montoya-Weiss *et al.*, 2003) and e-satisfaction (see Szymanski and Hise, 2000), both of which Harris and Goode (2004) find are strongly linked to e-trust. Indeed, Mandel and Johnson (2002) find that the visual primes of web pages exert a powerful influence on the evaluations of web users, while Fink and Laupase (2000) argue that positive evaluations of web sites by consumers are dependent on the prominent use of original designs such as logos that are often animated to increase effectiveness and impact. These and other findings have led theorists to argue that online shopping experiences and the development of trust is highly linked to the aesthetic appeal of the online service environment (e.g. Chen and Chang, 2003). Indeed, Fusaro *et al.* (2002) conclude that consumers’ level of online trust is dependent on the cues or reference points presented on web sites. Thus:

H1. Evaluations of online visual appeal are positively related to consumers’ trust of a web site.

In contrast to online visual appeal (that focuses on the online ambient conditions and the extent to which consumers interpret the servicescape as attractive or alluring), online layout refers to the arrangement, organization, structure, and adaptability of web sites while functionality refers to the extent to which such items facilitate service goals (a view of layout and functionality consistent with Bitner (1992)). In this sense, whereas online visual appeal focuses on aesthetics, online layout concentrates on organization and functionality. Existing studies argue that the functionality and usability of web sites are key criteria used by consumers to evaluate online environments (e.g., Donnelly, 2001; Zeithaml *et al.*, 2002). Conceptual and empirical studies have also forwarded diverse treatise and prescriptions on design effectiveness (often focusing on perceived “usability”) and user evaluations (e.g. Nielsen, 2001; Kim *et al.*, 2003). Such research leads Donnelly (2001) to contend that usability is the most

important way in which consumers evaluate web sites; an argument supported, in part, by the findings of Srinivasan *et al.* (2002). Similarly, evidence highlights the centrality of information relevance to web site evaluations (e.g. Bauer *et al.*, 2002; Zeithaml *et al.*, 2002). Indeed, Montoya-Weiss *et al.* (2003) find that information content constitutes a key factor in consumers' appraisals of web sites, while Donnelly (2001) claims that users evaluate web sites according to individualized information needs.

A range of commentators observe that the extent, to which online buyers perceive that they are able to interact with sellers, constitutes a key aspect of the online servicescape (e.g. Bauer *et al.*, 2002; Srinivasan *et al.*, 2002). Recently, theorists have highlighted the potential risks of inaccurate personalization (Frels and Kannan, 2001) and suggested that to avoid negative interpretations and behaviors, a cautious approach to personalization is prudent (see Rust and Kannan, 2002). However, Parsons *et al.* (1998) argue that through the customization of web sites, organizations are able to demonstrate their customer focus but also create switching costs and thus increase repatronage. Similarly, Shapiro and Varian (1999) comment that web-based customization is inexpensive and highly appropriate for some sectors. In this regard, online customization features allow consumers to tailor the site to their own needs (see Grewal *et al.*, 2003). Such conclusions are concordant with studies of online interactivity, that position "interactivity" as core to online exchange in both business (see Bauer *et al.*, 2002) and consumer (see Srinivasan *et al.*, 2002) contexts. In this regard, Chen and Chang (2003), and Srinivasan *et al.* (2002) each find that perceptions of interactivity form an important variable in the online shopping experience of consumers.

Thus, studies of online interactivity position perceived interactivity as a central driver of consumers' interpretations and behavior (e.g. Li *et al.*, 2001; Fiore and Jin, 2003). Similarly, a range of prominent commentators conclude that the functionality of web site design is fundamental to reflexive consumer evaluations and behaviors (e.g. Menon and Kahn, 2002; Mandel and Johnson, 2002). Moreover, research into the internet suggests that consumer opinions are strongly linked to the navigability and usability of the site (Evans and King, 1999; Hoque and Lohse, 1999). Indeed, studies of internet users are unequivocal in concluding that the extent of web site customization and personalization is central to consumers' evaluations (e.g. Huizingh, 2002; Menon and Kahn, 2002). Thus, researchers have emphasized the importance of the customization of web sites in retailing contexts (see Menon and Kahn, 2002). Therefore:

H2. Evaluations of online layout and functionality are positively related to consumers' trust of a web site.

Online financial security refers to the extent to which consumers perceive the payment processes and general policies of a web site as secure or safe. These exchange-facilitating aspects of online servicescape are also frequently discussed in existing studies (e.g. Zeithaml *et al.*, 2002; Montoya-Weiss *et al.*, 2003). Chen and Chang (2003) find that the ease with which payments are made and processed, forms a key dimension used by consumers to evaluate web sites. Similarly, theorists have also emphasized the importance of perceived security in online exchange (see Szymanski and Hise, 2000; Schiffman *et al.*, 2003). In a seminal study of

e-satisfaction, Szymanski and Hise (2000) find that the perceived security of a site is the (joint) second most powerful driver of online satisfaction. This finding is supported in the later work of Montoya-Weiss *et al.* (2003) who find links between security perceptions and both satisfaction and usage. These findings lead a range of commentators to observe that perceived security is a crucial aspect of online service environments (e.g. Fusaro *et al.*, 2002; Zeithaml *et al.*, 2002). In this sense, reflecting the centrality of trust to online exchange (see Lynch *et al.*, 2001; Stewart, 2003), theorists have stressed the importance of perceived security (see Szymanski and Hise, 2000; Schiffman *et al.*, 2003). Hence:

H3. Evaluations of online financial security are positively related to consumers' trust of a web site.

While a range of studies has found strong linkages between trust and behavioral intentions in offline contexts (e.g. Sirdeshmukh *et al.*, 2002), Sultan and Mooraj (2001, p. 42) suggest that trust is pivotal "whether the business is offline or online". However, Grewal *et al.* (2003, p. 18) observe that online customers are expected "to trust internet firms *more* than their bricks and mortar counterparts" (emphasis added) while Reichheld and Schefer (2000, p. 107) conclude that, while in all contexts loyalty is driven by trust, "on the Web ... it's truer than ever". This leads Fusaro *et al.* (2002, p. 148) to argue that without trust "e-commerce is doomed to stagnation at best, and extinction at worst" while Luo (2002) contends that the development of trust should be the *raison d'être* of internet firms. The significance of online trust is, in part, driven by empirical findings that find links between consumers' trust and their purchase intentions (see Harris and Goode, 2004). Consistent evidence has been forwarded that online shoppers are worried about payment security and opportunities for credit card fraud (e.g. Ratnasingham, 1998; Hoffman *et al.*, 1999). Further, recently empirical evidence has emerged in support of a strong association between consumers' online trust and intentions to purchase (see Stewart, 2003; Yen and Gwinner, 2003; Harris and Goode, 2004) in a variety of national contexts (see Lynch *et al.*, 2001). This leads to:

H4. Online trust of a web site is positively related to the purchase intentions of consumers.

Methodology

Rather than focusing on a single industry or company, we gathered data to evaluate our hypotheses via a cross-sectional survey of online shoppers. Although an experimental approach was considered, given the nature of the issues under investigation, a survey-based approach was employed, since it was considered prudent to focus on consumers' interpretations and intentions in their "natural" setting (rather than a potentially "artificial" experimental context). However, we recognize that such methods can generate fascinating insights into such issues – see Biswas and Biswas (2004) for a particularly noteworthy study). Respondents were required who have broad online experience and a familiarity with a broad range of online shopping outlets. Consequently, a randomly selected sample of 1,000 suitable respondents was purchased from a data brokerage agency. Potential respondents were initially contacted through a short personalized e-mail that outlined the nature of the project.

To improve response rates, participation was encouraged with a small financial incentive (\$10.00). In total, 425 respondents replied expressing an interest in participating in the study. Each of the 425 potential respondents was then contacted by telephone to arrange a mutually convenient time for a researcher to administer the survey instrument. This process eventually led to 257 appointments with potential respondents. At each appointment, the researcher first required the respondent to list five web sites with which they were familiar and that they had visited within the last three months with the intention of purchasing or from which they had purchased goods. To ensure variation, respondents were asked to include both sites that they viewed as “favorites” as well as less-favored sites. The researcher selected one of these five sites at random (throwing a die). Thereafter, the researcher and potential respondent visited the randomly selected web site and the respondents were asked to explore the site for ten minutes. After this process and while still online, the respondents were supplied with the survey instrument and asked to complete the questionnaire. Briefly, data were gathered regarding 96 different sites; the main sites being sites selling audio/visual goods (32 percent), computer-related products (12 percent), garments (9 percent), groceries (9 percent), and flights or holidays (5 percent) with the remaining sites as varied as online antique furniture-sellers to sites selling adult toys. In total, data collection yielded 257 fully completed questionnaires. This return represents a response rate of over 39 percent (using the method recommended by CASRO (1982)). This compares favorably to response rates of mailed surveys conducted on similar issues and is consistent with other studies adopting an administered survey approach (e.g. Harris and Goode, 2004).

The responses of early and late respondents were compared to gauge non-response bias and no significant differences were found among any of the factors used in later analyses. To evaluate the authenticity of respondents, a randomly selected sample of useable questionnaires was taken from the sample and independently assessed. This process involved re-contacting respondents by telephone and requesting confirmation of socio-demographic data. This evaluation found no significant discrepancies.

Analysis of responses indicates that the gender split was fairly equally divided between males and females (52 percent male). Just under half of the sample were currently married (45 percent), the average age was 39, and average family income of just over \$94,000 per year. Over 18 percent used their workplace computer to purchase online goods (compared to 81 percent at home and under 1 percent at an internet café). Purchasing online was almost exclusively through credit cards (98 percent) while average weekly online hours were six hours per week (measured by the median).

Measures

Although there is a considerable body of research into shopping intentions and trust, there is limited work on servicescape and especially so within an e-commerce environment (see Koernig, 2003). Therefore, in order to gauge these variables in an online environment, considerable scale development and adaptation was required. The scales used were developed using conventional psychometric procedures and were based on existing scales as well as

founded on scale development work conducted during pre-testing. In summary, our scale development procedure involved the development of survey instruments containing various measures of facets of servicescape, trust, and purchase intentions; derived largely from measures of offline perceptions and behavior (see below). Following a review of the issues involved in this study, utilizing a panel of senior managers within the internet industry and a number of leading academician subject experts, the amended survey instrument was pre-tested on 50 consumers. Detailed notes were taken regarding difficulties, criticisms, and suggestions and the instrument accordingly amended. The instrument was deemed suitable for data collection after a final review by three senior faculty members (see Appendix 1).

A range of studies have explored consumers' behavioral intentions in offline retailing contexts (e.g. Cronin *et al.*, 2000), while studies of shoppers' online conative loyalty are less common (see Harris and Goode, 2004). However, studies in both contexts tend to rely on the scale developed by Zeithaml *et al.* (1996). Similarly, our study focuses on purchase intentions and is also adapted from the scale of Zeithaml *et al.* (1996).

In the current study, the scale of web site trustworthiness employed is based on the trust measure recently employed by Harris and Goode (2004) that was originally based on the scale of Hess (1995) which, in turn, was first conceived to determine customers' trust in car sales. Harris and Goode (2004) argue that the Hess (1995) measure of perceived brand trust is the most easily transferable and adaptable measure of trust to an online context.

As indicated in Figure 1, e-servicescape was gauged along three dimensions (online aesthetic appeal, layout and functionality, and financial security) building on existing conceptualizations of offline servicescape as well as insights regarding the online environment (e.g. Szymanski and Hise, 2000; Zeithaml *et al.*, 2002). Consumers' interpretations of web site aesthetic appeal were gauged using three scales designed to measure perceived visual appeal, originality of design, and entertainment value. The measure of visual appeal was an extended (by two items), adaptation of the three-item measure of Mathwick *et al.* (2002). Originality of design was gauged via a four-item scale inspired by the comments of Grewal *et al.* (2003) while entertainment value was assessed using an adaptation of the three-item measure of Mathwick *et al.* (2002).

The functionality and layout of sites was evaluated via measures of usability, information relevance, the extent of customization, and interactivity. The 11-item scale gauging usability was adapted from the three-item scales of Srinivasan *et al.* (2002) and Hasan and Tibbits (2000), a single item drawn and adapted from Srinivasan *et al.* (2002) with the remaining four items inspired by Abels *et al.* (1997). The extent to which relevant information was available was measured via a five-item scale reliant on the theory of Eroglu *et al.* (2003). The measure of customization was designed to encompass consumer personalization and firm-led customization and included one item drawn from Srinivasan *et al.* (2002), five items developed from Abels *et al.* (1997) and a single item developed during pretesting. Finally, the extent of contact interactivity was adapted from the five-item scale of Srinivasan *et al.* (2002).

The third dimension of e-servicescape, financial security, was measured via gauges of ease of payment and perceived

security. Ease of payment was assessed via a five-item scale, in part reliant on the comments of Bitner (1992) while perceived security was tapped via a five-item scale derived from Swaminathan *et al.* (1999).

Measurement properties

To explore the data, preliminary analysis involved the use of exploratory factor analysis to evaluate the extent to which items loaded on the expected factor. Following this exploratory analysis, all of the constructs studied were formed using confirmatory factor analysis (CFA) utilizing LISREL 8.0. To evaluate the robustness of the measures employed, factors were generated for each of the 15 central constructs. As theorized, in the case of purchase intentions, trust of a web site, and each of the nine e-servicescape components, factors emerged as predicted as all items loaded positively and statistically significantly onto single (respective) factors.

In order to obtain a sample size-to-estimated parameter ratio greater than five and reliable parameter estimates (Bentler and Chou, 1987), the psychometric properties of the measures were examined by estimating three measurement models. The first confirmatory factor analysis included the measures of layout and functionality (usability, relevance of information, customization, and interactivity). The second measurement model included measures relating to aesthetic appeal (originality of design, visual appeal, and entertainment value) as well as the extent of trust in the web site). The final model included measures financial security (perceived security and ease of payment) as well as the measure of purchase intentions.

Shook *et al.* (2004) argue that there is no consensus regarding which measures of overall model fit should be employed but concur with a number of commentators that no single measure should be relied on but rather multiple indices from different families of measures should be used (e.g. Marsh *et al.*, 1988). Following the recommendations of Hair *et al.* (2005) absolute (Root Mean Squared Error of Approximation (RSMEA)) and incremental (Comparative Fit Index (CFI)) fit measures were employed.

All three models yielded a satisfactory incremental fit statistics with comparative fit indices above the 0.92 recommended by Hair *et al.* (2005). Similarly, absolute fit statistics were all lower than the 0.08 suggested in Hair *et al.* (2005).

Reliability was also gauged via the examination of Cronbach alpha coefficients that Nunnally (1978) suggests should be over 0.7 for a scale to be considered reliable (see Appendix 1). With the exception of two factors, all the Cronbach alpha coefficients exceed the threshold of 0.7. The exception to this were the measures of perceived security ($\alpha = 0.6861$) and interactivity ($\alpha = 0.6922$) both of which are higher than the minimum level of 0.6 suggested by Peterson (1994) and considerably higher than the 0.50 threshold originally advocated by Nunnally (1967).

The validity of each scale was first explored through plotting item-total correlations (Nunnally, 1967). In all cases, the coefficients were significantly high and in the expected direction. Further evidence for convergent validity was also found on inspection of the average variances extracted, all of which had a loading in excess of 0.5 and was significantly

related to its underlying factor (t -value > 5.15) (see Fornell and Larcker, 1981).

Discriminant validity was gauged using a two-stage procedure. First, discriminant validity was gauged through the analysis of chi-squared difference tests, in which the correlations between all possible pairs of constructs are once freely estimated and once set to unity (Gerbing and Anderson, 1988). This analysis revealed that all the chi-squared differences were significant at the five percent level, suggesting that the measures employed were not collinear. The lowest differences were between the measures of interactivity and customization ($\Delta\chi^2_{(1)} = 27.43$). However, the most robust evidence of discriminant validity was found through the application of the procedure recommended by Fornell and Larcker (1981). This procedure recommends comparing the average variance extracted to the variance shared (that is the squared phi-correlation) between the construct and other constructs in the model. The application of this method revealed that in each case, the square of the parameter estimates between two constructs was less than the AVE, supporting discriminant validity.

Results

To examine potential links between constructs, data were first explored via the study of bivariate zero-order correlation coefficients. The results of this analysis provided tentative support for *H1-H3*, in that each of the nine first-order factors were monotonically, positively and significantly ($p < 0.01$) associated with trust of a web site. However, consistent with the theory of Bitner (1992), who argued that such factors should be examined simultaneously, the correlation matrix indicated strong interrelations between the nine exogenous factors. Consequently, consistent with our conceptualization presented in Figure 1, three second-order factors were estimated and labeled “Aesthetic Appeal”, “Layout and Functionality”, and “Financial Security”. Zero-order correlation analysis provides further support for *H1-H3* through uncovering monotonically, positive, and statistically significant associations with trust for each second-order factor ($p < 0.001$). This finding provides additional support for the contention of Bitner (1992, p. 67) that the dimensions of servicescape should be examined simultaneously since “rather than a single element, it is ultimately the total configuration of environmental dimensions that defines the servicescape”. To facilitate subsequent analyses, a variance-covariance matrix was calculated, prior to structural equation modeling.

The results of structural equation modeling are presented in tabular form (see Table I) as well as modeled diagrammatically (see Figure 2). Shook *et al.* (2004) argue that there is no consensus regarding which measures of overall model fit should be employed but concur with a number of commentators that multiple indices from different families of measures should be used. Accordingly, absolute (e.g. RMSEA), incremental (e.g. CFI), and parsimonious (e.g. Normed Chi-Square) fit measures were employed to evaluate the proposed model (see Table I). The parsimonious fit measure employed was the Marsh and Hocevar (1985) test of dividing chi-squared by the degrees of freedom (χ^2/df) and was calculated generating a ratio of 3.65. Although this ratio is slightly above the ideal ratios suggested by Byrne (1989), it is likely that the large sample size (257) of the current study

Table I Standardized LISREL results

	Standardized parameters	t-values
Structural links		
Aesthetic appeal to web site trust	0.749 *	+11.752
Layout and functionality to web site trust	0.625 *	+10.264
Financial security to web site trust	0.519 *	+8.569
Trust to purchase intentions	0.498 *	+9.952
Diagnostic statistics		
Chi-squared (χ^2)	40.237	
Degrees of freedom (df)	11	
χ^2 /df	3.65	
Probability level (<i>p</i>)	0.000	
Number of observations	257	
Incremental Fit Index (IFI)	0.941	
Comparative Fit Index (CFI)	0.937	
Root Mean Squared Error of Approximation	0.071	

Note: * Statistically significant at $p < 0.01$

has generated a distorted chi-squared statistic that Marsh *et al.* (1988) suggest is sensitive to sample size and note that this bias starts at $n = 200$. Nevertheless, notwithstanding the effects of this bias, the χ^2 /df ratio of 3.65 conforms to the recommendation of Wheaton *et al.* (1977) who suggest a minimum acceptable χ^2 /df ratio of 5 (see Byrne, 1989). Incremental fit was evaluated via Bollen's (1989) Incremental Fit Index (IFI) and Bentler's (1990) CFI both of which represent comparisons between the estimated model and a null model. The CFI of 0.94 and IFI of 0.94 indicate strong support for the estimated model. Finally, absolute fit was evaluated via the RMSEA, recommended for larger samples (Rigdon, 1996), which further supported the acceptance of the model. Consequently, based on these diagnostic tests, it

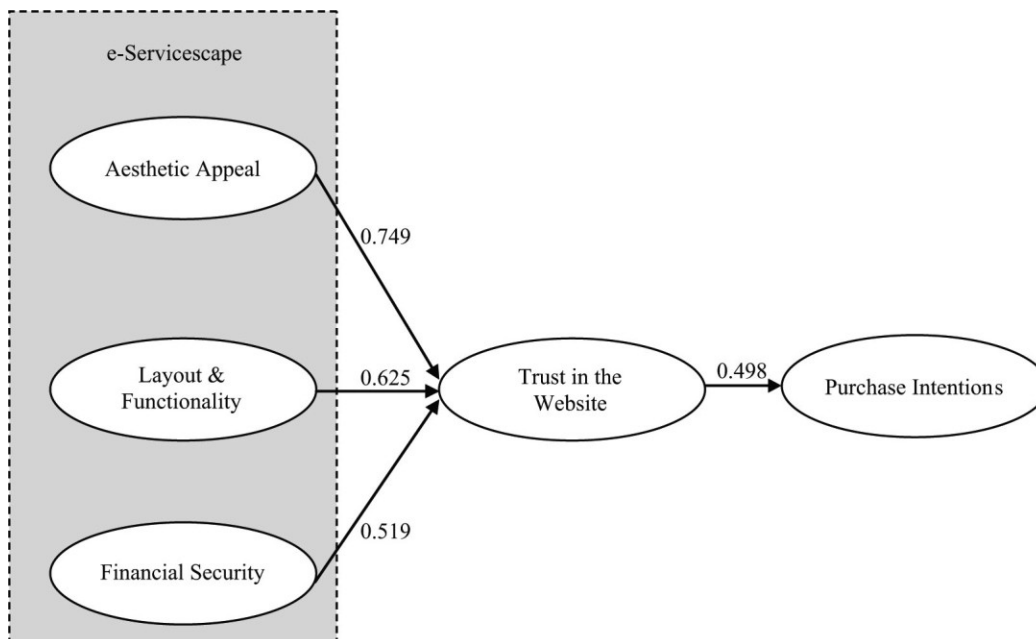
was concluded that the model was sufficiently valid to be deemed acceptable.

H1 argued that positive evaluations of online aesthetic appeal are positively associated with consumers' levels of trust of a web site. Structural equation modeling (see Table I and Figure 2) provides strong support for this hypothesized association in that online aesthetic appeal was found to be positively ($\gamma = 0.749$) and strongly significantly ($p < 0.001$) linked with trust of a web site. In this regard, it can be argued that these results suggest that the aesthetic appeal of online outlets plays an important role in generating consumer trust. The finding of a significant link between web site aesthetic appeal and trust of a web site is also noteworthy in that this association is the strongest link with trust of all of the three e-servicescape dimensions. While such differences should be interpreted with an element of caution, it is possible to argue that aesthetic appeal constitutes the most influential dimension of e-servicescape. Given these results *H1* is accepted as fully supported.

H2 contends that positive evaluations of the second dimension of e-servicescape, online layout and functionality, is also positively linked to consumers' evaluations of web site trust. Analysis reveals a positive ($\gamma = 0.625$) and strongly significant ($p < 0.001$) link between consumers' evaluations of the layout and functionality of web sites and their evaluations of trust. This lends strong support to claims that factors such as consumers' interpretations of usability, information relevance, customization/personalization, and interactivity are pivotal features of online service settings. In this way, it seems that the arrangement, organization, structure, and adaptability of web sites and the extent to which such items facilitate service goals are strongly linked to consumers' assessments of web site trustworthiness. Consequently, *H2* is accepted in full.

H3 focuses on the hypothesized link between positive evaluations of online financial security and trust of a web site. In this sense, it is argued that a core dimension along which

Figure 2 E-servicescape, trust, and purchase intentions



online service settings are evaluated, centers on consumers' interpretations and perceptions of web site and payment security systems. Structural equation modeling supports *H3* and validates the hypothesized link between assessments of online financial security and web site trust ($\gamma = 0.519$). Although this link is marginally the weakest association with online trust of the three e-servicescape dimensions, the standardized parameter estimated is nevertheless very strongly statistically significant ($p < 0.001$). This finding supports the argument of a number of commentators who have argued that consumers are more concerned with security issues in the online service environment than in offline contexts (e.g. Szymanski and Hise, 2000; Schiffman *et al.*, 2003). Therefore, formally, *H3* is accepted.

Finally, *H4* argues that trust of a web site is positively associated with shoppers' purchase intentions. Thus, this hypothesis suggests that the purchase intentions of online shoppers are significantly influenced by consumers' evaluations and interpretations of web site trustworthiness. Robust evidence in support of *H4* emerges during structural equation modeling (see Table I and Figure 2), producing a highly significant estimated structural parameter between trust of a web site and purchase intentions ($\gamma = 0.498$, $p < 0.001$). This provides some empirical support for scholars who have argued that trust is pivotal to generating e-loyalty (e.g. Grewal *et al.*, 2003; Harris and Goode, 2004). Thus, *H4* is accepted.

Discussion

The earlier review of existing literature indicated that while a range of studies had explored servicescapes in offline retail contexts, the concept of e-servicescape had been comparatively ignored but recently highlighted as important (see Eroglu *et al.*, 2003; Koernig, 2003). Consequently, a conceptual model of e-servicescape was developed that presents online environments as comprising three dimensions. Thereafter, to evaluate the robustness of the hypothesized model, a survey of online shoppers was undertaken. Analyses found support for our theoretical framework and uncovered strong links between e-servicescape, trust of a web site, and purchase intentions. The remainder of the text is dedicated to a brief review of the main implications of these findings as well as a series of suggestions for future study.

The first contribution of this study stems from the successful operationalization of a comprehensive multi-item (in total 52 items), multi-scale (nine scales), multi-dimensional (three) measure of e-servicescape (Appendix 1 also presents a 24-item shortened version). Although servicescape has been measured in offline contexts previously (e.g. Wakefield and Blodgett, 1996), such measures tend to utilize very limited, one-dimensional, simple measures, while studies of online atmospherics are in their infancy (see Eroglu *et al.*, 2003). In the current study, e-servicescape is conceptualized, operationalized, and evaluated as a three-dimensional construct, measured through nine factors (see Appendix 1). This conception of e-servicescape draws on extant conceptualizations of offline service settings (notably the work of Bitner, 1992) but also draws heavily on existing insights in the online environment (in particular Szymanski and Hise, 2000; Fusaro *et al.*, 2002; Wolfenbarger and Gilly, 2001; Srinivasan *et al.*, 2002; Zeithaml *et al.*, 2002; Chen and Chang, 2003).

The conceptualization of e-servicescape successfully operationalized and tested in our study, generates some support for the generalizability of the offline servicescape framework of Bitner (1992) in that two of Bitner's (1992) dimensions (ambient conditions and layout and functionality) can be equated to the dimensions of e-servicescape (aesthetic appeal and layout and functionality). Moreover, the finding that security issues are heavily linked to web site trust and thus purchase intentions also supports the comments of e-commerce scholars who have argued that the idiosyncrasies of online settings require a tailored approach.

Our second contribution centers on our finding that trust constitutes a key variable during online exchange. In this regard, our study is consistent with a range of recent contributions that have positioned trust as pivotal to online service dynamics (e.g. Harris and Goode, 2004) and e-loyalty (e.g. Stewart, 2003). The results of the current study indicate strong links between online consumers' evaluations of servicescape, trust of a web site, and purchase intentions (see Figure 2 and Table I). In this respect, not only do these findings support growing evidence of a trust-loyalty link (e.g. Yen and Gwinner, 2003; Harris and Goode, 2004), but also supports the arguments of internet scholars who have suggested that the very nature of online exchange increases the importance of online environmental features and their impact on consumers' interpretations and intentions (e.g. Grewal *et al.*, 2003). In this sense, our findings support the theories of leading commentators who argue that the development of buyer-seller trust in online contexts is the most important challenge facing contemporary e-tailers (e.g. Hoffman *et al.*, 1999).

Third, we contribute insights into the antecedents of consumers' purchase intentions. While it is acknowledged that our research design and LISREL methodology precludes causal claims, the results accord with a priori theory and provide support for the argument that the online environment influences are linked to trust that directly drives consumers' intentions and behaviors. The results of the current study strongly support the contentions of e-tailing researchers who suggest that "cybermarketscapes" (Venkatesh, 1998), "e-scapes" (Koernig, 2003), or "online atmospherics" (Eroglu *et al.*, 2003), and what we call "e-servicescape", is not only an important factor in the dynamics of online exchange, but also (ultimately) a strong determinant of online shoppers' purchase intentions. Although a number of leading commentators have argued that e-loyalty is of critical importance (e.g. Reichheld and Schefer, 2000), researchers have berated the lack of empirical research into online loyalty (e.g. Harris and Goode, 2004). In this regard, the current study provides empirical evidence that contributes preliminary insights into the linkages between e-servicescape, web site trust, and consumers' purchase intentions.

Our fourth contribution centers on the context of the study and the insights generated into e-tailing service dynamics. Our study reveals that consumers' perceptions and interpretations of online service environments exert a powerful, direct influence over trust that, in turn, is associated with consumers' purchase intentions. These results are analogous to the findings of a number of studies in offline retailing (e.g. Baker *et al.*, 1992) and other more diverse contexts (e.g. Wakefield and Blodgett, 1996). However, although parallels are evident between the facets

or components of online and offline servicescape, grounded in earlier studies of e-commerce (e.g. Menon and Kahn, 2002), during the operationalization of the measurement instrument, factors of e-servicescape emerged as important that were idiosyncratic to the context. For example, payment security, interactivity and usability emerged as important aspects of online environments. Thus, while some support emerges for the generalizeability of the offline servicescape framework to the online context, it would appear that such generalization should be tentative and responsive to the peculiarities of online retailing.

Managerial implications

The findings of this study also have numerous implications for both services managers and internet developers. The tested model confirms the hypotheses that e-servicescape is linked with trust which in turn is associated with loyalty intentions. As such, the findings supply valuable insights into which factors practitioners should focus their attention to better tailor their approaches and content. This study strongly endorses the view that the loyalty intentions of online customers are strongly linked to the extent to which they trust the service provider. Moreover, we find that customers' perceptions of the online servicescape are associated with trust. In this regard, a key implication for practitioners is that for online customers, repeat patronage pivots on the extent to which they perceive the firm as trustworthy, which in turn is linked with the e-servicescape. Thus, online service providers should critically evaluate their own service provision to ascertain factors which erode or enhance customers' perceptions of firm trustworthiness. One easy way service managers can increase trust on their web site is by putting a contact telephone number on every web page, this means customers can easily and quickly contact the site to discuss any special requirements or ask for additional advice, this is particularly important for highly priced items or were there is a high level of choice.

The findings of our research provide a clear framework for this process. In our study, we provide a framework of servicescape comprising three main components (aesthetic appeal, layout and functionality, and financial security) which respectively incorporate three, four, and two sub-dimensions. These nine sub-dimensions provide a useful checklist of the most important characteristics of the online servicescape against which practitioners can evaluate the online service provision of their firm. While global analyses may be useful, our experience is that their worth is limited as key aspects of the servicescape are often neglected. We suggest that managers undertake a systematic appraisal of their online servicescape across each of the nine sub-dimensions individually. This process almost inevitably leads to the identification of a dimension or (more commonly) a sub-dimension of the online servicescape that is neglected or insufficiently considered. The multi-item scale (see Appendices 1-3) could be used regularly to survey customers of either your own web site or competitors web sites, which in turn could reveal important e-servicescape gaps or advantages. For example, designers often pay great attention to design originality and assume that their own love of design constitutes entertainment value for users. Similarly, while many web sites provide security guarantees, few consider issues of ease of payment. The recommended

systematic approach must include and incorporate the views of customers. While firms and designers are often proud of their online provision, it is crucial to remember that servicescape is perceptual and subjective. Whatever, the firm's views of, for example, their security procedures and records, there is considerable evidence to suggest that consumers' interpretations can be vastly different. Therefore, anything which can reduce customers' perceptions of ID theft or reduce security problems must be implemented (i.e. the use of 32 bit encryption systems).

While the preceding managerial implications have focused on existing servicescapes, this study also has implications during the design stage of online services (especially as online services are commonly re-designed every two or three years). During the design of online services the findings of our study highlight the importance of generating trust through careful attention to the design of the servicescape. As each dimension of servicescape is important to consumers' interpretations, careful attention should be paid to each dimension during each stage of design. Customer interpretations of aesthetic appeal, layout and functionality, and financial security must be gained and their views incorporated into the design process. While this is undoubtedly a painful process as designer-favored innovations are balanced against customer needs, the resulting e-servicescape is likely to be one that engenders trust and thus loyalty.

Limitations and directions for future research

The limitations of the present study form the basis for the following suggestions for future study and stem from our desire to explore further the nature and dynamics of online and offline servicescapes:

- A key limitation of the current study emanates from the conceptualization developed. While we argue that this framework is robust, the theoretical foundations of our conceptualization are heavily reliant on extant studies of offline servicescapes. To evaluate further the generalizeability of our findings, future research is required to apply and evaluate the developed constructs and framework. Future studies may find it beneficial to develop and test alternative conceptualization of e-servicescape that are less grounded in conceptualizations that were originally developed for offline contexts.
- The findings and contributions of this study are also limited by the restricted range of service variables included in the research. A productive research avenue could focus on modeling the dynamics between servicescape and other key service variables. In particular, an investigation of servicescape that incorporates a wider range of service constructs (such as satisfaction, perceived value, and service quality) should prove illuminating and will improve the nomological validity of the e-servicescape measure.
- Linked to the previous limitation are issues regarding the broadness of the tested framework. In particular, the model we test assumes direct associations that are unmoderated, future studies should explore potential mediators and moderators of this link. For example, a particularly interesting approach would be to explore the characteristics of web sites as "signals" and the extent to which factors influence the credibility of such signals. Similarly, potential moderating factors (such as brick-and-mortar

presence and product characteristics) are also potentially interesting avenues of research.

- Finally, the research design and methods used constitute limitations of the study. The using a cross-sectional survey design we are able to gauge associations but not causality. Thus future studies could benefit from employing an experimental methodology. Such an approach would allow for the testing of causal effects and would permit the manipulation of different factors (such as online layout and visual appeal).

These and other emerging research avenues can form the basis for the more comprehensive investigation of the online service environment. In this regard, it is hoped that the current study generates additional academic interest into the phenomena of e-servicescape.

Notes

- 1 We use the terms “e-servicescape”, “online servicescape” and “online environment” interchangeably throughout. Nevertheless, we are favorably biased toward the term “e-servicescape”, since the label emphasizes the context of online exchange and highlights that purchasing online involves an element of self-service, even when products are purchased.
- 2 Lead question: “When shopping online I feel on this particular web site”.
- 3 Lead question: “When shopping online on this particular web site”.

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Appendix 1. Exogenous variables – e-servicescape

Aesthetic appeal

Visual appeal (five items), (Cronbach alpha = 0.8524)[2]

- 1 It is visually attractive.
- 2 It does not use visually appealing graphics ®*.
- 3 The way it displays its products is attractive*.
- 4 It is aesthetically appealing.
- 5 I like the way this web site looks*.

Originality of design (four items), (Cronbach alpha = 0.7276)[3]

- 1 Is fresh and original.
- 2 Is conservative ®*.
- 3 Is unadventurous ®*.
- 4 Is innovative and creative.

Entertainment value (five items), (Cronbach alpha = 0.8941)[3]

- 1 I think that this web site is very entertaining*.
- 2 The enthusiasm of this web site is catching, it picks me up*.
- 3 This web site doesn't just sell products-it entertains me.

- 4 I enjoy shopping from this web site for its own sake, not just for the items I may have purchased.
- 5 I shop from this web site for the pure enjoyment of it.

Layout and functionality

Usability (11 items), (Cronbach alpha = 0.8340) First six items[3] Last five items[2]

- 1 There are useful navigational aids.
- 2 The links are obvious in their intent and destination.
- 3 It is not easily navigated®*.
- 4 There are convenient ways to maneuver among related pages and between different sections*.
- 5 Navigation through this web site is intuitively logical*.
- 6 A first-time buyer can make a purchase from this web site without much help.
- 7 I use this web site because it has a good keyword search facility.
- 8 In general, this is an easy web site to use.
- 9 The functions on this web site are easy to operate.
- 10 This web site is difficult to use ®*.
- 11 This web site is user-friendly*.

Relevance of information (five items), (Cronbach alpha = 0.7809)[3]

- 1 Each page clearly indicates what one can expect to find or do.
- 2 Visual information about products is easily accessed.
- 3 All relevant information is easily available.
- 4 There is a great deal of irrelevant information ®*.
- 5 Technical details about products can be easily accessed*.

Customization/personalization (seven items), (Cronbach alpha = 0.7263)[2]

- 1 This web site is tailored toward me*.
- 2 If I wanted to, I could customize this web site to what I like (e.g. changing colors, layout, fonts etc.)*.
- 3 I feel that this web site is designed for me.
- 4 The services of this web site are often personalized to me.
- 5 That this web site treats me as an individual.
- 6 When communicating with this web site I am rarely addressed using my correct name ®*.
- 7 This web site makes purchase recommendations that match my needs*.

Interactivity (five items), (Cronbach alpha = 0.6922)[3]

- 1 This web site enables me to view the merchandise in different ways.
- 2 This web site has a search tool which helps me find what I want.
- 3 This web site helps me to compare products and prices*.
- 4 I feel that this is not a very engaging web site ®*.
- 5 I believe that this web site is not a very dynamic one ®.

Financial security

Ease of payment (five items), (Cronbach alpha = 0.7696)[3]

- 1 It has efficient payment procedures.
- 2 Payment procedures seem to take a long time ®*.
- 3 The payment facilities of this web site are easy to use.
- 4 Paying for goods is straightforward*.
- 5 Paying for goods involves entering a lot of details ®*.

Perceived security (five items), (Cronbach alpha = 0.6861)[3]

- 1 It seems very secure.
- 2 I have no concerns about buying things from this web site.
- 3 The security systems of this web site seem rigorous.

- 4 When buying from this web site I am not reassured by the security procedures ®*.
- 5 Overall, this web site seems security conscious*.

The size of the measure of e-servicescape presented above (52-items) can be viewed as restricting the utility of the developed measure. Consequently, while the application of the full 52-item measure is recommended where possible (and is used in the current study), to increase the usefulness of the measure, a shortened 24-item version of the scale was developed through further rounds of analysis. The items in the shortened version are denoted with an asterisk.

Appendix 2. Intermediate variable

Trust (eight items), (Cronbach alpha = 0.7722)[2]

- 1 This web site is interested in more than just selling me goods and making a profit.
- 2 There are no limits to how far this web site will go to solve a service problem I may have.
- 3 This web site is genuinely committed to my satisfaction.
- 4 Most of what this web site says about its products is not true ®.
- 5 I think some of this web site's claims about its service are exaggerated ®.
- 6 If this web site makes a claim or promise about its product, it is probably true.
- 7 I feel I know what to expect from this web site.
- 8 Overall, I feel that I can trust this web site.

Appendix 3. Endogenous variable

Purchase intentions (three items), (Cronbach alpha = 0.7667)[3]

- 1 I intend to purchase fewer goods from this web site in the next few years®.
- 2 I consider this web site as my first choice.
- 3 I expect to do more business with this web site in the next few years.

All scales used a seven point scale from strongly disagree (1) to strongly agree (7). ® Reversed coded questions.

Corresponding author

Lloyd C. Harris can be contacted at: Lloyd.Harris@wbs.ac.uk

Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of the article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.

Alice in Wonderland, Shrek, Avatar – the future of cinema, some say, is three-dimensional. What the movie makers are trying to do is make the experience of their sights and sounds more appealing, attractive, enticing and noticed. Back in the more mundane world of shopping web sites, web designers are also doing their level best to make the sights and sounds we get online as appealing as possible. Just as bricks-and-

mortar stores have had to consider the nature of what is now commonly called their “servicescape”, the rapidly-growing number of e-commerce retailers have to consider the appearance and usage of their e-servicescape – and, importantly, ensure a feeling of “trust” in the site. Walking into a well-known, long-established and reputable store can engender a feeling of trust. Clicking onto a web site, especially one that you do not know and maybe one which does not have a phone number where you can (if necessary) contact a “real” person, may not feel like being somewhere you can trust.

In “Online servicescapes, trust, and purchase intentions” Lloyd C. Harris and Mark M.H. Goode provide insights into how customers’ interpretations of the e-servicescape affect their subsequent evaluations of web site trustworthiness and ultimately their intentions to repurchase. Interestingly, they also talk of three dimensions – but not quite in the same way as the movie moguls. They put forward a conceptual model of purchase intentions, trust, and e-servicescape that presents online physical environments as comprising three multi-faceted dimensions (aesthetic appeal, layout and functionality, and financial security) which respectively incorporate three, four, and two sub-dimensions. These nine sub-dimensions provide a useful checklist of the most important characteristics of the online servicescape against which practitioners can evaluate the online service provision of their firm. The dimensions, with their sub-dimensions are:

- 1 *Aesthetic appeal*:
 - *Visual appeal*. For instance it is visually attractive? Does it use visually appealing graphics?
 - *Originality of design*. Is it fresh and original or conservative and unadventurous? Is innovative and creative?
 - *Entertainment value*. Comments such as: “I think that this web site is very entertaining” and “The enthusiasm of this web site is catching.”
- 2 *Layout and functionality*:
 - *Usability*. Useful navigational aids, links are obvious in their intent and destination, navigation intuitively logical, A first-time buyer can make a purchase from this web site without much help.
 - *Relevance of information*. For instance, each page clearly indicates what one can expect to find or do, All relevant information easily available. Is there a lot of irrelevant information? Technical details about products can be easily accessed.
 - *Customization/personalization*. I could customize this web site to what I like. I feel that this web site is designed for me. When communicating with this web site I am rarely addressed using my correct name. This web site makes purchase recommendations that match my needs.
 - *Interactivity*. This web site enables me to view the merchandise in different ways. It has a search tool which helps me find what I want. This web site helps me compare products and prices. I feel that this is not a very engaging or dynamic web site.
- 3 *Financial security*:
 - *Ease of payment*. It has efficient payment procedures. Payment procedures seem to take a long time. Payment facilities are easy to use. Paying for goods involves entering a lot of details.

- *Perceived security.* I have no concerns about buying things from this web site. The security systems seem rigorous. I am not reassured by the security procedures.

Loyalty intentions of online customers are strongly linked to the extent to which they trust the service provider. Repeat patronage pivots on the extent to which they perceive the firm as trustworthy, which in turn is linked with the e-servicescape. Consequently, online service providers should critically evaluate their own service provision to ascertain factors which erode or enhance customers' perceptions of firm trustworthiness. One easy way is by putting a contact telephone number on every web page. This means customers can easily and quickly contact the site to discuss any special requirements or ask for additional advice. This is particularly important for highly-priced items or where there is a high level of choice.

While global analyses may be useful, their worth is limited as key aspects of the servicescape are often neglected. Managers should undertake a systematic appraisal of their online servicescape across each of the nine sub-dimensions individually. This process almost inevitably leads to the identification of a dimension or (more commonly) a sub-dimension of the online servicescape that is neglected.

While firms and designers are often proud of their online provision, it is crucial to remember that e-servicescape is perceptual and subjective. Whatever, the firm's views of, for example, their security procedures and records, there is considerable evidence to suggest that consumers' interpretations can be vastly different. Therefore, anything which can reduce customers' perceptions of ID theft or reduce security problems must be implemented.

(A précis of the article "Online servicescapes, trust, and purchase intentions". Supplied by Marketing Consultants for Emerald.)