Effects of New-to-Market E-Store Features on First Time Browsers

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Abstract

Understanding the effects of website design features on website usage is complicated when buyers differ in their willingness to process information to make decisions. However, it becomes more difficult for a new-to-market e-store with no established familiarity. While extant literature suggests the use of interactivity and personalization features offered by estores to reduce consumers' risk perceptions and improve trustworthiness of such stores, there is little guidance on the level of feature provision required to enhance consumer satisfaction in making product selections from a new and unfamiliar e-store. The authors explore this issue in an online experiment with 273 subjects browsing 4 websites offering identical products but with variable levels of interactivity and personalization features. Findings reveal a positive association between the level of feature provision and browser decision-making outcomes. However, interactivity features are more effective for maximizers, whereas personalization ones are more effective for satisficers..

Keywords Website Design; Interactivity; Personalization; E-store; Maximizer; Satisficer.

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1. Introduction

In spite of high investment by e-stores in web-based technologies to improve website design and retain existing customers whilst attracting new ones (Wang et al., 2011), a recent industry report suggests that the browser to buyer conversion rate for retail/e-commerce sites is only 3% (Marketing Sherpa, 2012). In order to understand the reasons behind such a low rate, prior research has focused on issues like privacy, security, order fulfilment capabilities, trust and seller's assistive intent to help browsers search for the information they need and fulfil the task of choosing and ordering a product meeting their requirements (Bart et al. 2005; Cho, 2006; Gupta et al., 2009). Existing research suggests that e-stores make use of two features that help browsers to seek information and perform such a task: interactivity features which browsers can use to communicate with the seller and engage in information search, and personalization features which browsers can use to tailor the information and content of the website according to their requirements (Ansari and Mela, 2003; Liu and Shrum, 2009; Song and Zinkhan, 2008). However, understanding the effects of such features is more complicated, because browsers vary in terms of their needs, ability and motivation to use such features and process information from them (Ganesh et al., 2010; Wolfinbarger and Gilly, 2001). A key challenge for managers of internet-based retail start-ups is making their e-store a destination for customers, particularly when it is unknown, offers a limited product range and has no established brand image. With fewer resources to invest in website design than established businesses, it becomes even more crucial for them to understand how they can use website design features to increase e-store attractiveness to first time visitors and enhance website stickiness so that they can establish a relationship with prospective buyers (Wang et al., 2011; Hausman and Siekpe, 2009; Grewal and Levy, 2007; Rosen, 2001).

As a result of increased competition online, users can search for information from a wider choice of suppliers with low switching costs. Since they are more likely to avoid websites that are perceived to be confusing, too slow or not suited to their needs (Chevalier and Kicka, 2006), the users' first impressions of a website are of the utmost importance (Lindgaard et al., 2006) for they will either entice them to explore the website further (Tuch et al., 2012) or drive them away from it (Geissler et al., 2006).

According to Ariely (2000) the information which marketers present to consumers should be suitable for their specific needs and facilitated through the provision of interactive information systems to enable them to control how it flows when they navigate a website to search for information. Liu and Shrum (2009) point out that while features of the website interface design may offer better control and enhanced information processing for some users, they may alternatively make information processing and task completion more difficult for others and result in information overload. Also, individuals vary in terms of their buying decision-making strategies by either being maximizers who seek the best option or satisficers who choose an alternative that is good enough (Schwartz et al., 2002). Establishing the provision of an optimal balance of interactivity and personalization features to assist users to easily and quickly find out what they want from a website can encourage them to stay longer on the site (Yeh and Li, 2014).

Within the consumer behavior literature Engel et al.'s (1978) dominant model of the consumer buying decision-making process is depicted as consisting of five steps: problem recognition, information search, evaluation of alternatives, purchase selection and post-purchase behavior. A consumer may exit the process at any of these steps. Given that a new-to-market e-store needs to appeal to as many first time users as possible, the aim of our study is to better understand how interactivity and personalization features can appeal to users, irrespective of whether they are maximizers or satisficers, and assist them in making purchase

selections from its product range. Our research questions are: What are the effects of e-store interactivity and personalization features for a new-to-market e-store on first time browser perceptions of trust, risk, decision satisfaction and attractiveness of alternatives? How are the effects of these features on such perceptions influenced by whether the consumer is a maximizer or a satisficer? We use an experimental study where customers experience e-stores with varying levels of interactivity and personalization features and pursue a goal-directed task of choosing a high involvement product to purchase. The remainder of the paper is organized as follows. In the next section, we review extant literature and develop our hypotheses. We then describe the research methodology and present our analysis of results. Finally, we discuss the results, their implications and potential limitations of the study.

2. Theoretical Background

2.1 Interactivity and personalization e-store features

A website requires a significant level of investment and effort to support the buying decision-making process (Silverman et al., 2001; O'Keefe and McEachern, 1998). In this study we are solely concerned with how interactivity and personalization features available to users can facilitate the pre-purchase information search and evaluation stages of this process for first time browsers. Both types of tool attract the attention of researchers from marketing, human-computer interaction and information systems disciplines (Chung and Zhao, 2004; Stewart and Pavlou, 2002).

A website's level of interactivity is central to converting visitors to customers (Berthon et al., 1996) and is positively related to its attractiveness (Ghose and Dou, 1998). Interactivity enables sellers to create human-computer interfaces with highly interactive features (Häubl and Trifts, 2000), which empower users engaged in information search to be able to decide upon what information to access, for how long and in what order (Wu and Lin, 2006). Two broad approaches to interactivity co-exist: the technical and the user perspectives. The former addresses objective (or actual) interactivity and considers the structural aspect that is under the company's control (Steuer, 1992). It is operationalized through the presence or absence of interactive features and the level to which these features are employed (Häubl and Trifts, 2000; Hoffman and Novak, 1996; Steuer, 1992). In contrast, the user perspective concentrates on subjective (or perceived) interactivity felt by the website user outside the company's control (Song and Zinkhan, 2008; Liu and Shrum, 2002). Perceived interactivity is defined as "the degree to which two or more communication parties can act on each other, on the communication medium, and on the messages and the degree to which such influences are synchronized" (Liu and Shrum (2002) p.54). Nevertheless the relationship between objective and subjective interactivity remains unclear. While some studies claim that increasing the number of interactive website features will determine perceptions of a high level of interactivity (Sicilia et al., 2005; Macias, 2003), other work theoretically challenges the existence of a positive linear relationship (Liu and Shrum, 2002; McMillan and Hwang, 2002) and empirically finds it to be more complex (Song and Zinkhan, 2008; Voorveld et al., 2011).

Personalization, on the other hand, is defined by Montgomery and Smith (2009) as "an adaptation of the marketing mix to an individual customer based upon the marketer's information about the customer" (p.131). In an online context this translates into offering tailored content to users to meet their requirements (Ansari and Mela, 2003) with the main motivation of improving the browsing and shopping experience (Adomavicius and Tuzhilin, 2005) and enhancing website usage (Greer and Murtaza, 2003). There are three types of personalization attributes: adaptive personalization which gathers user information by allowing users to choose from different options (Vesanen, 2007); collaborative filtering features that use algorithms to recommend customer recommendations based on their preferences; and content-based filtering which determines user preferences based on content-

based prediction (Greer and Murtaza, 2003). In our study we only focus on the influence of adaptive personalization.

2.2 Effects of e-store features on decision making

First of all, many researchers have observed the pivotal role of trust in online decisionmaking and purchase intentions (see McKnight et al., 2002; Corritore et al., 2003; Jarvenpaa et al., 2000). Online trust is defined as "an attitude of confident expectation in an online situation or risk that ones's vulnerabilities will not be exploited" (Corritore et al., 2003, p. 740). A new-to-market e-store relies on its website to convey its trustworthiness to first time visitors, who by virtue of low switching costs can easily leave the site and visit other e-stores (Koufaris and Hampton-Sosa, 2004). Interactive features which are available to users can assist online shoppers during the information search and evaluation stages of the buying decision-making process. For example, recommendation agents help to initially screen the alternatives available from an online store and comparison matrices enable detailed evaluations to be made among selections being considered (Häubl and Trifts, 2000). For Gupta et al. (2009) these types of features influence the trustworthiness of new-to-market eretailers. They found that leveraging task-related website functionalities (in the form of interactive information management and comprehension features) to enable prospective buyers to personalize website content and facilitate choice decisions will increase initial trust formation for complex and information-rich products. In a similar vein, McKnight et al. (2002) found a positive association between perceived site quality and trusting beliefs in an online supplier at the initial phase of trust development. Thus, the use of such features almost certainly influences trust and confidence amongst users in potential relationships with a newto-market e-retailer. Nevertheless, neither study offers guidance about the level of tool provision required.

Secondly, Song and Zinkhan (2008) claim that using website features may also positively influence satisfaction. For a user perceived interactivity brings about cognitively involving experiences through active control and two-way communication (Liu and Shrum, 2002). Since the ability to be in control of one's own communication experiences can result in higher self-efficacy beliefs (Gist and Mitchell, 1992), Liu and Shrum (2002) proposed a positive relationship between each interactivity dimension and user satisfaction. Indeed Teo et al. (2003) argue that satisfaction captures a website's affective appeal. Meanwhile corroborating evidence from Ballantine (2005) maintains that perceptions of the level of not only interactivity but also of the amount of product information provision positively influences satisfaction. Similarly, Dholakia and Zhou (2009) found that objective and subjective interactivity positively impacts on customer satisfaction and behavioral intentions (Dholakia and Zhou, 2009). Nevertheless managers should be cautious about increasing the number of interactive design features or the amount of product-related information on a website since an optimal threshold may exist beyond which satisfaction decreases owing to feelings of sensory or information overload (Ballantine, 2005; Jacoby et al., 1974). Furthermore, Song and Zinkhan (2008) contend that increasing interactivity features would not automatically enhance perceived interactivity and web effectiveness. Together, these studies highlight the need for further research to better understand how users' interaction with specific website features impacts on internal psychological states.

Satisfaction has largely been explored in the marketing literature in terms of Oliver's (1980) expectancy-disconfirmation model, which postulates that satisfaction or dissatisfaction is the result of a comparison of pre-purchase expectations against perceptions of actual performance. Consequently it is often examined as a summary evaluative judgement of the shopping experience generally (Fornell et al., 1996). However in a recent study of the use of personalized technologies to tailor the online purchase process to individual customer

needs, Thirumalai and Sinha (2011) examined customer satisfaction at two distinct subprocess levels (i.e. customization of information content to aid customers to make decisions through personalized recommendations and customization of the purchase transaction process). They found a positive relationship between customer satisfaction and decision customization through the provision of choice assistance, as well as one between customer satisfaction and transaction customization through making online purchase transactions personal, convenient and interactive. They are not the only authors to point out that a processbased view of satisfaction ought to be taken. Heitmann et al. (2007), expanding upon earlier work by Fitzsimons et al. (1997), argue for decision satisfaction (i.e. satisfaction with the purchase decision making process) to be treated as a separate construct from consumption satisfaction (i.e. satisfaction with the outcome of the purchase decision process).

Thirdly, customers using a supplier for the first time will normally feel a degree of uncertainty and vulnerability, particularly when services are high involvement ones that are personally important, heterogeneous or complex (Berry, 1995). Hence the importance of having two-way communications and customer service guarantees to help suppliers show their trustworthiness. The notion of trust is also related to risk: they are inseparable components in a rational decision-making process with the calculative action of trust always involving an element of risk (Morrison and Firmstone, 2000). Perceived risk is conceptualized as a customer's anticipation of negative consequences and feelings of uncertainty about the services provided by a supplier (Dowling and Staelin, 1994). For a consumer visiting the website of an unfamiliar new-to-market e-retailer, the formation of initial trust is crucial for reducing risk perceptions with regard to a possible future transaction with the firm (Koufaris and Hampton-Sosa, 2004).

Next, further criticisms of Oliver's (1980) expectancy-disconfirmation model on the grounds that it only measures post-purchase satisfaction are voiced by Johnson et al. (2008).

They claim that since risk perceptions in future offerings of an organization are negatively influenced by retrospective and cumulative customer evaluations of satisfaction with encounters involving the organisation, perceived risk should be considered as a form of expectation influenced by satisfaction with these encounters. This reasoning is founded on Sweeney et al.'s (1999, p.81) definition of perceived risk as "the subjective expectation of a loss" and recognition that current satisfaction may reduce anxiety about future performance. We therefore expect risk perceptions to be alleviated by initial perceptions of trust and decision satisfaction.

Finally, initial perceptions of trust and decision satisfaction should also allay any concerns about the attractiveness of viable competing alternatives in the marketplace (Jones et al., 2000). We can understand how consumer satisfaction with an environment impacts on behavioral tendencies under different motivational orientations through the lens of perceptual control theory (Hershberger, 1989). When comparing consumers with and without a purchase task in an online purchasing setting, Wang et al. (2011) found that the impact of satisfaction with website characteristics (i.e. features) on the propensity to search on other websites was significantly negative for task-oriented consumers but significantly positive for those who were task-free. Our study is solely concerned with the behavior of task-oriented consumers browsing a new-to-market e-store.

Therefore, we hypothesize the following:

H1: The presence of website design features which offer a high level of *interactivity* (as compared to a low level) will *positively* influence consumer's perceptions of (a) trust and (b) decision satisfaction and *negatively* influence consumer's perceptions of (c) risk and (d) attractiveness of alternatives.

H2: The presence of website design features which offer a high level of *personalization* (as compared to a low level) will *positively* influence consumer's perceptions of (a) trust and (b)

decision satisfaction and *negatively* influence consumer's perceptions of (c) risk and (d) attractiveness of alternatives.

2.3 Moderating effect of user's predisposition toward maximization

Finally, usage of interactivity and personalization features depends on various factors such as their knowledge of such features, the online environment, or their knowledge or involvement with the product category concerned (Gupta et al., 2009; Liu and Shrum, 2009). It may also depend on consumer motivation to identify the best possible alternative, their capacity to consider a significant amount of information, and their willingness to invest time and resources to process such information (Heitmann et al., 2007). Schwartz et al. (2002) categorize people on a continuum based on their propensity to maximize or satisfice. Maximizers at one end aspire to find the optimal alternative and are willing to invest time and resources to use all possible sources of information and make the best possible choice, while satisficers at the other end seek to obtain a good enough option and are willing to minimize their information search effort as long as they can make a satisfying choice. Researchers suggest that maximizers are more prone to experience post-purchase dissonance, regret, and dissatisfaction in the decision-making process than satisficers (Iyengar et al., 2006; Chowdhury et al., 2009; Carrillat et al., 2011). This is because maximizers experience apprehension when they face a large number of choices, anticipate regret for overlooking alternatives and perceive time pressure to make quick decisions, which leads to a sense of dissatisfaction (Chowdhury et al., 2009). They concentrate more on the decision-making process rather than the outcome (Schwartz et al. 2002).

Häubl and Trifts (2000) argue that interactive decision aids (for example recommendation agents and comparison matrices) help buyers to efficiently screen a set of alternatives available in the online shopping environment. Since maximizers are more motivated than satisficers to browse available alternatives offered by an e-store while processing product information and comparing product attributes, they are more likely to use interactivity features to avoid any potential regret in post-purchase decisions. On the other hand, personalization decision aids that offer user-driven ability to control content or presentation format in response to the unique needs of individual buyers (Tam and Ho, 2006) allow consumers to reduce information overload and offer user-defined search facilities, product recommendations and promotional offers that suit individual needs (Montgomery and Smith, 2009; Thirumalai and Sinha, 2011). Since the primary motive of satisficers is to find a good enough product, they are more likely to benefit from personalization features than maximizers. According to Carrillat et al. (2011) a maximizer minimizes the value of past decisions and starts each decision afresh, which means not relying on browsing or purchasing history to reduce their level of information search activity. Based on these arguments, we hypothesize that:

H3: The *positive* association between the presence of website design features which offer a high level of *interactivity* (as compared to a low level) on consumer's perceptions of (a) trust and (b) decision satisfaction and the *negative* association between such a presence on perceptions of (c) risk and (d) attractiveness of alternatives will be *higher* for *maximizers* as compared to *satisficers*.

H4: The *positive* association between the presence of website design features which offer a high level of *personalization* (as compared to a low level) on consumer's perceptions of (a) trust and (b) decision satisfaction and the *negative* association between such a presence on perceptions of (c) risk and (d) attractiveness of alternatives will be *higher* for *satisficers* as compared to *maximizers*.

3. Method

3.1 Participants

Two hundred and seventy-three university students took part in this laboratory experiment. Drawn from undergraduate and postgraduate programmes at a British university based in the Midlands, they were recruited through electronic and printed announcements and flyers circulated throughout the campus and offered in return a modest shopping voucher. We chose students as participants because they represent a large homogeneous group with a very similar demographic profile (such as age, income, and education level), which ensures that the effects of factors such as age, wealth and social status are minimal and do not affect the findings of the experiment. According to Kardes (1998) and Sternthal et al. (1994), it is preferable when testing hypotheses to ensure homeogeneity in subjects' characteristics. Moreover, students are familiar with the selected product class for the experiment, which was laptop computers, as well as online shopping environments. Pre-tests indicated that such assumptions were correct. To ensure the profile of students was appropriate for the purchase task assigned in the online experiment, we used filter questions about time spent online per week, online purchases made in the last six months, and prior experience of online purchasing of computer hardware or software. Only students who spent at least an hour every week online, had made at least one online purchase in the last six months and had previously purchased computer hardware or software online were selected from the pool of respondents.

The sample was 63% female, mostly in the age group between 20-24 years, and with income less than £20,000 per annum. 73% of the participants were undergraduates. About 90% of them had been using the Internet for more than five years, 60% had spent more than 15 hours online every week, 45% had bought more than six products online in the previous six months, and 34% had already purchased computer hardware/software online.

3.2 Experimental procedure

A 2 (interactivity: high versus low) by 2 (personalization: high versus low) by 2 (predisposition towards maximization: high versus low) between-subjects experimental

design was used to study the hypothesized relationships. We manipulated the levels of interactivity and personalization features available to users in the experiment, but the participants' predisposition towards maximization, being an individual trait, was measured instead.

In order to conduct the experiment, we designed a hypothetical e-store (called *Laptopmadness.com*), which sells laptop computers. To determine the design, we consulted the websites of several real-life online electronics stores selling laptop computers, as well as discussed the possible e-store features with information technology professionals. Based on this, we hired a professional creative web design and web development firm to design and host the e-store. To manipulate the levels of interactivity and personalization features available to users, we created four versions of the e-store. To avoid any potential confounding effects of information overload, each version offered a limited and identical choice set of 14 products (with images and prices of laptops being taken from existing websites). The content of the customer services section was also identical. The manipulations were as follows: store A had high interactivity and high personalization features, whereas store D was low in both interactivity and personalization features. Figure 1 shows an illustrative screenshot for store A that represents high interactivity and high personalization tools.

We conducted the experiment in a controlled laboratory setting, where we assigned the participants to one of the four experimental conditions and asked them to sit at specific computers with pre-set experimental e-stores. To introduce them to the experiment, we explained that *Laptopmadness.com* was a new e-store selling laptop computers targeted at university students. We then gave them a paper booklet containing the instructions for the task to be undertaken in the experiment and a two-part questionnaire. Before browsing the

website of their respective e-store, they were given 10 minutes to complete the first part, which measured their experience of using the Internet (i.e. how much time they spent online every week) and online shopping (i.e. the number of online purchases made in the last six months and prior experience of online purchases of computer hardware or software online), their product category knowledge and involvement with laptops and their predisposition toward maximization. As mentioned earlier, our study is concerned with the behavior of taskoriented users who visit a new-to-market e-store for the first time. Since the goal-directed task allocated was to choose a suitable laptop, we also wanted to instil a search goal towards the e-store (following Schlosser et al. 2006). We therefore asked them to write down two questions about the e-store. In the second part of the questionnaire we asked the participants to browse the website of their respective e-store for 5 minutes and specifically go through the customer services section that explained delivery information, price guarantee, free return, and contact details about the e-store including the toll-free options. This section was identical across the four e-stores, and therefore provided a common baseline for e-store competence cues, which Gupta et al. (2009) argue is important to signal functional competence and create a platform suitable to study the incremental effects of the varying levels of manipulated website design features as observed in each individual e-store.

Next, we used a standard thought elicitation procedure for assessing cognitive responses (Cacioppo and Petty, 1981). We asked the participants to write down thoughts that came into their mind while browsing the e-store, which enabled us to capture thought protocols. So far limited attention has been paid to examining consumers' cognitive responses to a website compared to their affective responses (van Noort et al., 2012) apart from studies such as those conducted by Ariely (2000), Sicilia et al. (2005) and Liu and Shrum (2009). We therefore wanted to learn more about participants' first impressions of the e-store. After this, we asked the participants to choose a suitable laptop by carefully considering all the products, prices,

consumer feedback reports as available in their respective e-store, before completing the remainder of the questionnaire, which measured their perceptions of the e-store's interactivity and personalization features and the four selected outcome constructs. On average, the entire experiment took about 30 minutes to complete. Based on the e-store allocations, 70 participants experienced store A, 66 experienced store B, 69 experienced store C, and 68 participants experienced store D.

3.3 Stimuli and manipulation check

We manipulated interactivity and personalization features of the website interface of the e-store based on literature (see Table 1 below), insights from professionals, and real-life e-stores selling laptops. Interactivity was manipulated through the provision of five additional features: (1) a product choice feature where a user can select a laptop based on a specific feature like the size of the hard drive; (2) a recommendation agent that helps users to narrow down the options available to suit their needs; (3) a comparison matrix where a user can compare between brands on a list of their own chosen features such as price; (4) customer reviews for popular products; and (5) a glossary that acts as a jargon buster to understand various technical features. Put simply, the presence of these features indicated a high level of interactivity and their absence indicated a low level of interactivity.

Similarly, personalization was manipulated through the provision of five additional features: (1) a user-driven feature to create a personalized wish list and shopping cart after registering with the e-store; (2) a transaction-driven feature to create a personal account and view recently browsed items or items added to the shopping cart; (3) external customization for a personalized email address and e-newsletter subscription; (4) a permission-based marketing option to receive promotional offers; and (5) a help-me-choose feature where user can choose brands based on salient product attributes.

INSERT TABLE 1 HERE

Next, we conducted the manipulation check with 16 students exposed to stores A and D (i.e. those on the extreme ends of the manipulation). We checked the manipulation of interactivity features by asking them to indicate the extent to which the website provided comparison features to collect more information about laptops (1= very little, 7= great deal). A t-test revealed a significant difference in mean values of perceived interactivity between the stores (store A: 5.84, store D: 2.35, p<0.05). Then to check the manipulation of personalization features, we asked the participants to indicate the extent to which the website provided features to view recently browsed items (1= very little, 7= great deal). A t-test showed a significant difference in mean values of perceived personalization (store A: 5.94, store D: 2.12, p<0.05). Therefore, the manipulation of the web design features was successful and the four websites were ready for use in the final data collection stage.

3.4 Measures

We used a range of existing scales to measure the key constructs in the experiment with responses collected using a seven-point point Likert scale (1= strongly disagree, 7= strongly agree) for all items as follows: trust (Cho, 2006); decision satisfaction (Heitmann et al., 2007); perceived risk (Chen and He, 2003); attractiveness of alternatives (Jones et al., 2000); and predisposition toward maximization (Heitmann et al., 2007; Schwartz et al., 2002). Construct reliabilities were acceptable with Cronbach's alpha exceeding 0.7 for all constructs (Nunally, 1978). Table 2 shows the construct reliabilities and inter-correlations.

In order to explore differences between maximizers and satisficers, we used the median split of the composite score for the predisposition toward maximization construct to separate the study participants into the two discrete categories of maximizer (n=122) and satisficer (n=151), which were represented by 1 and 0 respectively in further analyses.

Since we had chosen to manipulate the two independent variables of interactivity and personalization in the experimental design, we also acknowledged that the use and

comprehension of advanced website design features depends on a participant's experience of using the Internet and making online purchases. Therefore, we included two control variables to account for such individual differences: internet experience operationalized as the amount of time an individual spends online each week (Liu and Shrum, 2009); and online purchase experience operationalized as the number of online purchases made by an individual in the previous six months (Schlosser et al., 2006). (See Appendix for a list of the measures used in the questionnaire).

INSERT TABLE 2 HERE

4. Results and Discussion

4.1 Methods of data analysis

The analysis of data was done in two stages. In the first stage, the study used a 2 (interactivity: high vs. low) X 2 (personalization: high vs. low) X 2 (predisposition towards maximization: maximizers vs. satisficers) MANCOVA to explore the effects of the manipulations on four outcome constructs (trust, decision satisfaction, perceived risk and attractiveness of alternatives) with two covariates (internet experience and online purchase experience). However, the influence of the two covariates (internet experience: F= 0.47, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; and online purchase experience: F= 0.04, p>0.10, partial eta square= 0.008; on the purchase experience: F= 0.04, p>0.10, partial eta square= 0.001) was not significant and hence we dropped them from further analysis to obtain a more parsimonious model. Therefore, the study used 2 X 2 X 2 MANOVA followed by four univariate ANOVAs for each of the four outcome constructs.

In the second stage, the study analysed the thought protocols obtained from the participants to gain a better understanding of the nature of the cognitive responses generated immediately after browsing their respective e-store for the first time. Two independent judges coded participants' thoughts from two of the experimental conditions, store A (high interactivity and high personalization features) and store D (low interactivity and low

personalization features), since these stores represented the strongest contrast in terms of the level of web design features employed and provided an opportunity to further explore first impressions of the e-store. Reported thoughts about the website were coded according to whether they were favorable, neutral or unfavorable toward the website. Cohen's kappa was used to measure inter-rater reliability (Cohen, 1960) and indicated that there was good agreement between the two raters' judgements, $\kappa = 0.607$ (95% CI, 0.487 to 0.727), p < .001. *4.2 Results*

Table 3 below shows the means for the outcome constructs for the two user groups. It shows that higher levels of interactivity and personalization features offered by the e-stores improve users' perceptions of trust and decision satisfaction. They also reduce users' perceived risk of purchase from an unknown e-store and their intentions to look for alternative avenues of purchase. This shows that on the whole, offering higher levels of these features is beneficial for the e-store to improve its customer perceptions.

INSERT TABLE 3 HERE

Table 4 shows the combined results of the MANOVA and ANOVA analyses. These results, together with those of Table 3, show that there is a positive (increasing) influence of interactivity on consumer's perception of trust (Mean for high interactivity = 5.15, Mean for low interactivity = 4.70, F (1, 265) = 22.39, p< .001) and decision satisfaction (Mean for high interactivity = 4.58, Mean for low interactivity = 4.42, F (1, 265) = 19.10, p< .001). It also shows that there is a negative (decreasing) influence of interactivity on consumer's perception of risk (Mean for high interactivity= 2.92, Mean for low interactivity= 3.49, F (1, 265) = 55.67, p< .001) and attractiveness of alternatives (Mean for high interactivity= 4.16, Mean for low interactivity= 4.74, F (1, 265) = 20.67, p< .001). Higher scores for trust and decision satisfaction represent more favourable perceptions toward the e-store, as do lower

scores for perceived risk and attractiveness of alternatives. Post-hoc tests were not required as we had only two groups for each factor. Thus, the results support H1a-H1d.

Similarly, the results show that there is a positive influence of personalization on consumer's perception of trust (Mean for high personalization = 5.08, Mean for low personalization = 4.78, F (1, 265) = 9.54, p< .05) and decision satisfaction (Mean for high personalization = 4.52, Mean for low personalization = 4.21, F (1, 265) = 10.11, p< .05). Although they do not show that there is a negative influence of personalization on consumer's perceived risk (Mean for high personalization = 3.33, Mean for low personalization = 3.32, F (1, 265) = 0.01, p> .05, not significant), they indicate that there is a negative influence on attractiveness of alternatives (Mean for high personalization = 4.23, Mean for low personalization = 4.67, F (1, 265) = 11.72, p< .05). Thus, the results support H2a, H2b, and H2d, but do not support H2c.

Next, we focus on the interaction effects of predisposition toward maximization and interactivity on trust F(1, 265)=45.69, p< .001, decision satisfaction F(1, 265)=82.72, p<.001, perceived risk F(1, 265)=41.38, p< .001, and attractiveness of alternatives F(1, 265)=21.95, p< .001. An examination of the means (Table 3 and Figure 2) show that interactivity features lead to stronger positive and negative effects on the four outcome constructs for maximizers as compared to satisficers. This supports H3a, H3b, H3c and H3d. Similarly, we focus on the effects of predisposition toward maximization and personalization on trust F(1, 265)=0.15, p> .10 (not significant), decision satisfaction F(1, 265)=1.61, p> .10 (not significant), perceived risk F(1, 265)=55.67, p< .001, and attractiveness of alternatives F(1, 265)=68.68, p< .001. However, Figure 2 and Table 3 show that trust and decision satisfaction for satisficers increase at a greater rate than for maximizers when the provision of personalization features increases from low to high. Although there is a directional relationship, this does not reach statistical significance with the result that there is mixed

support for H4a and H4b. An examination of the means (Table 3 and Figure 2) for perceived risk and attractiveness of alternatives show that personalization features lead to stronger negative effects for satisficers as compared to maximizers. This supports H4c and H4d. INSERT TABLE 4 HERE

Finally, in addition to the hypotheses testing, we also undertook an analysis of the participants' thought protocols, which were captured immediately after browsing their respective e-store for the first time. From the selected protocols provided in Table 5, it can be seen that participants commented on ease of navigation, site attractiveness, interactive functions for search, advice and product comparisons, as well as the product range. Nevertheless, both stores were criticized for offering a limited choice set offered. A possible explanation for this might be that classical psychological theories of human motivation and economic theories of rational choice are underpinned by the assumption that it is more desirable to have more than fewer choices (Iyengar and Lepper, 2000). As already mentioned a new-to-market e-store is likely to offer a limited product range compared to the greater variety expected from more established retailers, particularly given the huge range of laptops available in the marketplace. Overall, thoughts about store A (with high levels of interactivity and personalization features) were more positive than thoughts about store D (with low levels of interactivity and personalization features), which suggests that the participants' first impressions of their allocated e-store are influenced by the presence of task-facilitative estore features. Both maximizers and satisficers had mainly positive thoughts about store A, while maximizers had more negative thoughts about store D than satisficers.

INSERT TABLE 5 HERE

4.3 Discussion

So far, limited attention has been paid by researchers to understanding the psychological antecedents of website conversion. The study sheds light on what is going on in consumers'

minds when they encounter a new-to-market e-store for the first time and potentially engage in choosing a product to purchase from such a vendor. This study addresses two research issues: (1) understanding the impact of the level of provision of two specific cues in the website interface (i.e. interactivity and personalization features) on users' internal psychological decision-making states (trust formation and decision satisfaction) and decisionmaking outcomes (perceived risk and attractiveness of competing alternatives); and (2) how individual differences in the user (their propensity to maximize) can influence their judgements in response to the store environment resulting in approach or avoidance behaviors.

The most important finding of the study is that both interactivity and personalization features have a significant positive influence on consumers' trust and decision satisfaction, as well as on subsequent conative responses. Prior research finds a positive relationship between interactivity features of e-stores and outcomes such as attitude toward the web site and the product, satisfaction and loyalty (Song and Zinkhan, 2008; Liu and Shrum, 2009; Sicilia et al., 2005). In addition, extant studies show a positive relationship between personalization features and outcomes such as attitude toward the web site and satisfaction with transaction (Tam and Ho, 2006; Thirumalai and Sinha, 2011). However, the influence of website interactivity (such as ability to compare products, use of a buying guide) and personalization (such as creating a wish list, getting personalized emails) on the choice making process rather than on post-purchase behavior has been largely ignored. The current study explores this phenomenon by simulating a new-to-market e-store. The results from Tables 3 and 4, and the protocol analysis of customer comments in Table 5 clearly show that the availability of advanced interactivity and personalization features improves customers' trust and satisfaction with decision making, and reduces their risk perception and search intention for alternatives towards an unknown e-retailer. However, the results do not show a significant impact of

personalization on customers' perceived risk. We provide the following explanations for this apparent contradiction. Gupta et al. (2009) explain how trust initially develops between customers and a new e-retailer by using the functional design features which positively influence customers' assessment of a seller's assistive intent. However, a positive perception towards the unknown e-retailer's assistive intent may not be convincing enough for the customers to alleviate their perceived risk of buying from an unknown, new-to-market estore. The sense of vulnerability and uncertainty persists when the product is high involvement, complex and personally relevant (Berry, 1995) like a laptop in this case. Overall, the results show that even with a limited product choice offered by the new-tomarket e-retailer, higher levels of interactivity and personalization features can satisfy customers in their decision making process. Results from protocol analysis validate this finding as well.

Next, this study examines how web design features influence customers' choice-process satisfaction. The results show that both interactivity and personalization positively influence customers' decision satisfaction. Although extant literature highlights that the limitation of choice option decreases choice-process satisfaction (Zhang and Fitzsimons, 1999), studies by Iyengar and Lepper (2000) found that having too much choice can be demotivating and fewer options can increase satisfaction with the choice making process. Our study indicates that even with a limited product choice offered by the new-to-market e-retailer, higher levels of interactivity and personalization features can satisfy customers in their decision making process.

Finally, the study examines how an individual's predisposition toward maximization (maximizers versus satisficers) influences their use of interactivity and personalization tools. The results show that higher levels of interactivity features influence the decision process of maximizers more, whereas satisficers make more use of advanced personalization features offered by the e-retailer. This follows the argument that maximizers want more control on product related information to reduce their perceived risk and possible regret, and make an informed choice (Chowdhury et al., 2009; Heitmann et al., 2007); and that advanced interactivity features can provide them with the necessary decision support. On the other hand, satisficers want to reduce information overload (Jacoby et al., 1974) and choose a good enough product. Personalization features offer them the option to customize the information content according to their need.

4.4 Theoretical implications

This study contributes to the literature on the effects of task-facilitative information features (interactivity and personalization) features on consumers' browsing experience and choice-making strategies in three ways. First, the results show that both interactivity and personalization features have a significant positive influence on consumers' trust and decision satisfaction, as well as on subsequent conative responses. This finding supports prior research but our study makes a novel attempt in a simulation of a real-life e-store of examining the additive effects of website interactivity and personalization feature provision on browsing outcomes. Specifically, the availability of advanced design features improves consumers' trust and satisfaction with decision making, reduces their risk perceptions towards an unknown e-retailer and attractiveness to search competing alternatives except where personalization features fail to reduce perceived risk. While Gupta et al. (2009) explain how trust initially develops between customers and a new e-retailer through the use of functional features that positively influence customers' assessment of seller's assistive intent, it may be the case that a positive perception in this respect will not be convincing enough to diminish their sense of risk to purchase from an unknown e-store.

Second, the results show that the perceived value of websites with higher levels of interactivity and personalization features are higher and have significant influence on the

browsing outcomes. Figure 2 demonstrates that although the ability and motivation of consumers to use the advanced web design features vary, their perception towards such features improves when the e-retailer actively invests in the web design technology.

Third, higher levels of interactivity features influence the decision process of maximizers more than satisficers. This follows the argument that maximizers want more control on product-related information in order to reduce their perceived risk and possible regret, and make an informed choice (Carrillat et al., 2011; Chowdhury et al., 2009; Heitmann et al., 2007). Advanced interactivity features can provide them with the necessary decision support. By comparison, satisficers make more use of advanced personalization features offered by the e-retailer than maximizers. Since they want to reduce information overload (Jacoby et al., 1974), personalization features offer them the option to customize the information content according to their need so that they can choose a good enough product. Overall this study establishes how best to utilize interactivity and personalization features to develop initial trust and pre-purchase satisfaction in accordance with the information search motivation of individual consumers, and contributes to the literature on the predisposition toward maximization trait by examining its influence in the hitherto unexplored context of online retailing.

4.5 Managerial implications

The results of this research offer guidance to managers of new-to-market or relatively unknown e-retailers on how to use website design features to influence site attractiveness and website stickiness amongst the prospective buyers. Since these e-retailers cannot use other marketing signals such as pre-purchase experience or word-of-mouth from an existing customer base to attract and retain prospective buyers, it is imperative for them to use higher levels of task-facilitative interactivity and personalization features to establish a sense of initial trust and choice satisfaction amongst first time browsers, which will increase the likelihood of using such e-retailers on a trial basis. Initially they have to treat every visitor to their site as a potential customer, as they are not in a position to discriminate between different types of visitors. However, the results also suggest that rather than offering the same mix of such features to every prospective customer, e-retailers should tailor website content to suit the information search motivation of maximizers and satisficers. While established e-retailers can employ site-centric clickstream data to experiment with website designs in order to identify those which will generate the most clicks, encourage extended browsing and result in increased purchase conversion, internet-based retail start-ups are only beginning to gather such data. Nonetheless, recent innovative research at MIT has demonstrated the potential for website conversion rates to increase after morphing websites to match individual cognitive styles (Urban et al., 2009). Thus dynamic web design features can potentially be in-built to expose maximizers to a version of the website with higher levels of interactivity features (such as comparison matrices and glossaries) and satisficers to one with higher levels of personalization features (such as personalized newsletters and tailor-made preferences based on past browsing experiences).

4.6 Limitations and directions for future research

With an experimental methodology there is always the issue of ecological validity. We hired a professional creative web design and web development firm to design our fictitious estore so that we could simulate the online scenario in which prospective buyers visit the website of a new-to-market e-retailer for the first time. Employing an experimental design offers the advantages of high levels of control and ability to manipulate variables individually, however in our study we only tested the effects of a limited number of interactivity and personalization features. Future work could consider other features which could be used to manipulate the website interface. In addition, data for the study was collected after the first visit of the participants to the experimental stores. Future research can also make the experimental design on a longitudinal scale where data is collected after repeat visits so that the participants get enough exposure to all the manipulated features. Another limitation is that although university students represented the target audience for our fictitious e-store, such a sample restricts the generalizability of the results. Nonetheless, students are experienced and frequent web users (Geissler et al., 2006), and as previously mentioned, are widely used as samples in online experiments involving a technology purchase. There is also the issue that there was only one product category in our study, in this case laptop computers. These are complex products of a utilitarian rather than a hedonic nature, which highly involve consumers when they are making a buying decision. It would be worthwhile replicating the study for other types of high involvement purchases to confirm the generalizability of the results. Furthermore, our e-store offered a limited choice set, which is typical of experimental studies. So it would be interesting to study the impact of offering a larger choice set to the first time visitors. Also, the experimental task of choosing a high involvement product to purchase from the e-store involved utilitarian browsing to search for relevant information through goal-directed behavior under time pressure rather than hedonic browsing for pleasure. Future scenarios might consider both types of browsing searches with and without time constraints. Other moderator variables could also be considered such as buyers' level of product involvement or risk averseness as they would result in different user profiles and deepen our understanding of the relationship between the web design features and perceptions of trust and decision satisfaction.

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Tables

Tools	Low interactivity	High interactivity	Reference
Product choice	Static- move from one	Dynamic- ability to filter as per	Liu and Shrum (2009)
	product to the next	price, brand, technical tools such	
		as hard drive capacity	
Recommendation	Absent	Presence of tools such as buying	Häubl and Trifts (2000)
agent		guide, product rating guide	
Comparison	Absent	Presence of tools such as price	Häubl and Trifts (2000)
matrix		comparison guides	
User reviews	Absent	Customer reviews about various	Adapted from real life e-
		brands	stores
Glossary	Absent	Jargon buster explaining various	Gupta et al. (2009)
		technical terms	
Tools	Low personalization	High personalization	Reference
User-driven	No facility to create	Options for creating	Tam and Ho (2006);
	personalized wish list	personalized wish list, my	Thirumalai and Sinha
		shopping cart	(2011)
Transaction-	No facility to create my	Facility to create my account,	Tam and Ho (2006);
driven	account	save personal information, view	Thirumalai and Sinha
		recently browsed items or items	(2011)
		added to shopping cart	
External	Absent	Personalized email, newsletters	Ansari and Mela (2003)
customization		sent when the user register with	
		the e-store	
Rewards	Absent	Sign-up deals for competition,	Adapted from real life e-
		early bird deals	stores
Personal advice	Absent	Help me choose feature	Lee and Park (2009)

Table 2. Construct correlations and reliabilities							
	Interactivity	Trust	Decision	Perceived	Attractiveness		
			satisfaction	risk	of alternatives		
Interactivity							
Trust	0.27**	0.88					
Decision	0.24**	0.42**	0.85				
satisfaction							
Perceived risk	-0.33**	-0.36**	-0.39**	0.84			
Attractiveness	-0.21**	-0.25**	-0.36**	0.25**	0.88		
of alternatives							
Personalization							
Trust	0.20**	0.88					
Decision	0.21**	0.42**	0.85				
satisfaction							
Perceived risk	-0.01	-0.36**	-0.39**	0.84			
Attractiveness	-0.19**	-0.25**	-0.36**	0.25**	0.88		
of alternatives							

Table 2: Construct correlations and reliabilities

Note: Construct reliabilities are displayed on the diagonal Construct inter-correlations are displayed below the diagonal ** significant at 0.01 level

		Interactivity		Personalization	
		High	Low	High	Low
Maximizer	Trust	5.45 (0.09)	4.38 (0.09)	5.04 (0.09)	4.78 (0.09)
	Decision satisfaction	4.99 (0.09)	4.22 (1.28)	4.43 (0.09)	4.25 (0.09)
	Perceived risk	2.65 (0.11)	3.69 (0.09)	3.82 (0.11)	2.99 (0.11)
	Attractiveness of alternatives	4.18 (0.13)	5.35 (0.12)	5.08 (0.12)	4.46 (0.13)
Satisficer	Trust	4.85 (0.09)	5.03 (0.10)	5.11 (0.09)	4.78 (0.10)
	Decision satisfaction	4.16 (0.09)	4.62 (0.10)	4.61 (0.09)	4.18 (0.10)
	Perceived risk	3.19 (0.11)	3.29 (0.11)	2.84 (0.10)	3.64 (0.11)
	Attractiveness of alternatives	4.14 (0.13)	4.12 (0.13)	3.38 (0.12)	4.88 (0.13)

Table 3: Differences in the effectiveness of web design tools between the e-stores

Note: Mean scores with standard deviations in parentheses.

Wilks' Multivariate Degrees Р Partial Observed Source of Univariate Hypothesis variation lambda/ F-ratio F-ratio of value eta power Pillai's freedom squared Trace 0.77/ 19.83 4,262 .001 0.23 1.00 Interactivity (I) 0.23 0.08 0.99 Trust 22.39 1,265 .001 H1a: support Decision 19.10 1,265 .001 0.07 0.99 H1b: support satisfaction Perceived risk 55.67 1,265 .001 0.17 1.00 H1c: support Attractiveness of 20.67 1,265 .001 0.07 0.99 H1d: support alternatives 0.09 Personalization 0.91/ 6.39 4,262 .001 0.99 0.09 (**P**) Trust 9.54 1,265 .04 0.04 0.87 H2a: support Decision 10.11 1,265 .04 0.04 0.88 H2b: support satisfaction 0.01 0.05 Perceived risk 1,265 .91 0.001 H2c: no support Attractiveness of 11.72 1,265 0.04 0.93 H2d: support .03 alternatives **Predisposition** toward maximizing (M) .74 0.001 0.06 0.10 1,265 Trust Decision 1,265 0.09 0.33 .56 0.001 satisfaction 2.34 1,265 0.009 Perceived risk .13 0.33 24.97 1,265 0.99 .001 0.09 Attractiveness of alternatives Interactions .001 0.68/ 30.99 IXM 4,262 0.32 1.00 0.32 Trust 45.69 .001 0.15 1.00 1,265 H3a: support 1,265 Decision 82.72 .001 0.24 1.00H3b: support satisfaction 41.38 1,265 .001 0.14 1.00 H3c: support Perceived risk Attractiveness of 21.95 1,265 .001 0.08 0.99 H3d: support alternatives P X M 0.69/ 29.84 4,262 .001 0.31 1.00 0.31 Trust 0.15 1,265 .65 0.001 0.06 H4a: mixed support^a 0.01 H4b: mixed Decision 1.61 1,265 .20 0.25 satisfaction support^a .001 1.00 Perceived risk 55.67 1,265 0.17 H4c: support H4d: support Attractiveness of 68.68 1,265 .001 0.21 1.00 alternatives IXP 0.91/ 5.73 4,262 .001 0.08 0.98 0.08 Trust 0.81 1,265 .37 0.003 0.15 Decision 0.88 1,265 .35 0.003 0.15 satisfaction .001 0.08 0.99 Perceived risk 21.78 1,265 Attractiveness of 0.45 1,265 .50 0.002 0.10 alternatives IXPXM 0.75/ 1.71 0.25 1.00 4,262 .15 0.25 Trust 3.71 1,265 .06 0.01 0.48 Decision 1, 265 0.07 .99 0.001 0.05 satisfaction Perceived risk 0.08 1,265 .99 0.001 0.06

Table 4: The Moderation role of Predisposition toward Maximization on the Effects of Interactivity and Personalization on the Outcome Constructs (Moderation effect hypotheses -Multi- and Univariate Analysis of Variance

^a There is directional support but does not reach statistical significance

Table 5: Illustrative thought protocols reflecting levels of web design tools on perceived web effectiveness by participant identifier and predisposition toward maximization

High levels of interactivity and personalization tools

Low levels of interactivity and personalization tools

The website is easy to browse and very informative. The choices are very limited though. I like the comparison chart with the other electronic stores and the prices of the laptops. It's similar to other websites that also sell products. (AR05-S)

Clear, easy to read. Easy to navigate around the site. Good to have a 'help me choose' button and compare products area. Definitely good to have the search by price section as students will often be looking for under $\pounds 200$ or $\pounds 400$ to $\pounds 500$. (AR23-S)

The brands available are limited and product choices are not enough as well. It's caring and helpful to include the shopping guide which gives me some suggestions on how should I pick a laptop. (But I think it's only helpful to those who really don't know about laptop much). The website design is simple but bold. (AR27-S)

Nice layout and easy to navigate. The colour scheme works well and I can immediately see the guarantee and safe card logos encouraging user to trust site. Comparing products is a useful tool and works well. Tabs along top bar useful – as buyers often know a brand they want. (AR52-S)

Basically design of the website looks a little bit cheap, like created from the template. Buying procedure is quite straightforward, but there is not a lot of options to choose from. Search facility is really limited, you cannot search by various technical specification, like RAM etc.. Technically, description is also really basic, requires more work. (AR06-M) The website is clearly structured. Items are well categorized by brand, which makes search easier. It also provides price comparison to high street retailers such as Currys, PC World and Argos. Also, it provides some definition of the tech words to help people who are not familiar with these words. (AR15-M)

Looked professional with easily accessible links to all main laptop companies. Variety is limited however. Prices seem reasonable. Under more info on laptop, it had a nice summary of its main features which was helpful for quick comparison. Could have done with small thumbnail features of laptops when you clicked on the main brand (AR46-M).

The laptops look attractive – a 360 degree look at the items would be good so that I can have a perfect idea of how they look (e.g. thickness, colour of the back). I like that you can browse through the brands. I can see that the website is customer friendly because the customer service is available 24/7, that online payment is safe (retailer's accreditation), 30 day guarantee. I like the amount of description available as this will help me choose a laptop. (AR69-M)

Same as other sites that I have visited that sell laptops. Easy to browse. Not much variety. Everything you need to know about the product is on the page. Uses easy language. It says "compare our prices with Currys, Argos" etc. but it doesn't actually give examples. (DR04-S)

It looks very professional. Easy to use, user friendly. Good FAQ section. Clear structure of the products. Easy to navigate around the website. Could be more variety of laptops e.g. Acer laptops with bigger screens. Good easy ways of paying online. Nice layout. (DR33-S)

The website is unappealing (sorry). Anyone can do what you did...and if anyone can do it (and do) what makes you think your site will be successful? You need to differentiate, invest a few thousand on an amazing site. Otherwise, you'll just go the way of other online retailers – broke because of no customers. (DR37-S)

My first impression was positive. The website has a variety of laptops and the information is clearly displayed clearly. I do not know a lot about laptops but found the information clear and helpful. I think the money back guarantee and the 24/7 customer service is very good and would reassure me if I was ordering from this website. (DR63-S)

Limited makes e.g. laptop – no Dell. The link on the top left 'Compare our prices with Currys, PC World, Argos' is just a link to the home page. I thought it would actually show a price comparison like compare.com. (DR12-M)

Would be useful if there was the option of comparing one laptop to another on the same page e.g. spec etc. There is no link to the terms and conditions when you click on the 30 day money back guarantee, next day delivery and internet delivery is safe icons. The site seems a bit empty – not many products. At the top it says 'Compare our prices with Currys, PC World & Argos' which makes me believe that this was an option when it wasn't. (DR27-M)

My initial perception was that the home page looked clumsy. Everything boxed into compartments by manufacturer seemed overly simple especially as they all had a heading. A compare feature would have been useful, having bought a laptop 2 weeks ago it was critical to my decision making process to be able to compare prices and spec(ification) back to back. (DR35-M) Lack of 'comparison function' which allows to compare several choices together. Lack of 'laptop finder' function based on aim of uses, RAM or hard drive needed. Should have section of 'best recommended laptops'. Need to have a wider range of choice. Laptop features should be represented in table layout for easy reading. (DR59-M)

Note: AR00/DR00 = Store A/D participant identifier; S = satisficer; M = maximizer

Figures

Figure 1: Illustrative Screenshot of High Interactivity and High Personalization tools used in the study



Figure 2: Mean plots for buyer's perception of trust, decision satisfaction, perceived risk and attractiveness of alternatives for varying levels of interactivity and personalization features. *Measurement scales are anchored at 1= strongly disagree and 7= strongly agree with higher scores representing more favourable perceptions for trust and decision satisfaction and lower scores representing more favourable perceptions for perceived risk and attractiveness of alternatives.*



















Appendix

Table A1 Measures used in this study Trust (based on Cho, 2006) This e-retailer will operate its business in a highly dependable and reliable manner. This e-retailer will be responsible and reliable in conducting its business with customers. This e-retailer will promote customers' benefits as well as its own. This e-retailer will not engage in any kinds of exploitative and damaging behaviour to customers. Decision satisfaction (based on Heitmann et al., 2007 I found the process of deciding which product to buy frustrating (R) Several good options were available for me to choose between. I thought the choice selection was good I would be happy to choose from the same set of product options on my next purchase occasion. I found the process of deciding which product to buy interesting. I was satisfied with my experience of which laptop to choose. Perceived risk (based on Chen and He, 2003) My expected monetary loss from laptop purchases from this e-retailer is high. My expected failure of product performance if I buy laptops from this e-retailer is high. I will feel uneasy psychologically if I buy laptop from this e-retailer. I do not think it is safe to buy laptops from this e-retailer site. I feel uncertain about the e-retailer's time efficiency in terms of dealing with the order and delivery of laptops. If I buy laptops from this e-retailer, I think I will experience high difficulty in terms of gaining social recognition from my friends, family. Attractiveness of alternatives (based on Jones et al., 2000) If I needed to change e-retailers, there are other good laptop e-retailers to choose from. I would probably be happy with the products and services of another e-retailer/online laptop retailer. Compared to this e-retailer/ online laptop retailer, there are other online laptop retailers with which I would probably be equally or more satisfied. Compared to this e-retailer/ online laptop retailer, there are not very many other online laptop retailers with whom I could be satisfied. Predisposition toward maximization (based on Heitmann et al., 2007; Schwartz et al., 2002) When I am listening to the radio, I often check other stations to see if something better is playing, even if I'm relatively satisfied with what I'm listening to. When I watch TV, I often channel surf, scanning through the available options even while attempting to watch one programme. No matter what I do, I have the highest standards for myself. I never settle for the second best. Whenever I'm faced with a choice, I try to imagine what all the possibilities are, even ones that aren't present at the moment. I often find it difficult to shop for a gift for a friend. I'm a big fan of lists that attempt to rank things (the best movies, the best singers, the best athletes, the best novels etc.).

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