

E-Commerce Consumer and Product Characteristics

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INTRODUCTION

Retailers having an online selling facility, or considering doing so, would benefit from a better understanding of the factors that influence consumers' willingness to purchase online. This understanding would help them to plan their Internet strategies better, to design Web sites more effectively, to select the assortment of goods more likely to sell online, and to convert mere browsers into actual buyers. In fact, despite the worldwide diffusion and ever-increasing use of the Internet, e-commerce remains a limited phenomenon compared with the sales figures of traditional retailing: while an ever-increasing number of people use the Internet for gathering information, comparatively few buy online (Citrin, Stern, Spangenberg, & Clark, 2003; Dall'Olmo-Riley & Scarpi, 2005).

This article aims at providing Internet marketing academics and practitioners with an account of the drivers and barriers to e-commerce, identified from a state-of-the-art literature review. The review is structured around the two main factors that appear to influence behavior on the Internet: consumer and product characteristics. Researchers agree that, although product characteristics play a role in e-commerce, the effects of attitudes, risk perception, and expertise are dominant. Hence, we first consider consumer characteristics.

BACKGROUND

Numerous Internet users appear reluctant to shop online and use the Internet only as a means of gathering information, before purchasing in traditional brick-and-mortar environments. For instance, Dieringer Research Group (cited in Mazur, 2003) report that in the past year \$138bn were spent by U.S. consumers for purchasing products off-line after seeking information online, compared with \$95bn spent for shopping directly online.

According to the literature there are two key factors influencing purchase behavior on the Internet: consumer-related factors and product-related factors. Although the

literature considers these two factors from numerous different perspectives, there is shared agreement about their importance for understanding (and directing) consumers' behavior online. Appropriate retailer factors (i.e., retailers' Internet strategies and tactics) are further key elements influencing how the Internet is used (e.g., for buying rather than browsing), and how the overall online shopping experience is evaluated (see Cowles, Kiecker, & Little, 2002). Conversely, while new technologies can enhance the shopping experience, their application "must be tailored to the unique requirements of consumer segments and product categories" (Burke, 2002, p. 411). Thus, consumer- and product-related factors must be taken into account for providing useful managerial implications in the online medium.

From an extensive review of the existing literature, we identify four main consumer-related dimensions relevant to the understanding of the adoption of e-commerce:

1. **Consumers' Attitudes** (Helander & Khalid, 2000; Goldsmith & Bridges, 2000; Venkatesh, 2000; Childers, Carr, Peck, & Carson, 2001; Goldsmith & Goldsmith, 2002; Hoffman, Novak, & Duhachek, 2002; Sénécal, Gharbi & Nantel, 2002; Citrin et al., 2003; Joines, Scherer, & Scheufele, 2003; Lee & Tan, 2003; Meuter, Ostrom, Bitner, & Roundtree, 2003; O'Cass & Fenech, 2003)
2. **Risk Perception** (Wee & Ramachandra, 2000; Forsythe & Shi, 2003; Kau, Tang, & Ghose, 2003; Lee & Tan, 2003)
3. **Previous Experience** (Goldsmith & Goldsmith, 2002; Forsythe & Shi, 2003; O'Cass & Fenech, 2003; Dall'Olmo-Riley & Scarpi, 2005)
4. **Price Consciousness** (Goldsmith & Newell, 1997; Degeratu, Rangaswamy, & Wu, 2000; Fenech & O'Cass, 2001; Joines et al., 2003; O'Cass & Fenech, 2003; Shankar, Smith, & Rangaswamy, 2003)

On the other hand, there is no doubt that also products play a key role. First of all, not all products are equally suited to be sold online; for instance, products whose

core essence is of an intangible and informative nature are more suited to be distributed through the Internet than others (Girard, Silverblatt, & Korgaonkar, 2002; Kau et al., 2003). Similarly, products can be categorized on the basis of the balance between “search” and “experience” attributes they possess (Klein, 1998; Citrin, 2003). For “search products”, full information on the most important attributes can be obtained prior to purchase, while for “experience” products, it cannot, or is more costly/difficult than direct experience. Thus, by facilitating the acquisition of information and by lowering the cost of searching, the Internet not only suits search products, but may also enable the transformation of “experience” products into “search”. For instance, the attributes of clothes (fit, quality of material, feel, etc.) can be assessed before purchase when bought in a traditional brick-and-mortar environment, but shift towards becoming ‘experiential’ when sold online. Furthermore, most researchers agree that consumers are more likely to shop online for goods with well-known brands and from well-known retailers, and it has been postulated that brand equity could have higher impact online than off-line.

Basing on these considerations, we identify and focus upon two product-related dimensions:

1. **Products and Services Typology** (Bowen, 1990; Van den Poel & Leunis, 1999; Fenech & O’Cass, 2001; Girard et al., 2002; Lee & Johnson, 2002; Citrin et al., 2003; Forsythe & Shi, 2003; Kau et al., 2003; Lee & Tan, 2003; Marzocchi, Misso, & Bononcini, 2003; Dall’Olmo-Riley & Scarpi, 2005)
2. **Brand Names** (Klein, 1998; Degeratu et al., 2000; Harvin, 2000; Balabanis & Reynolds, 2001; Citrin et al., 2003; Kau et al., 2003; Lee & Tan, 2003)

Indeed, the characteristics of the good/service have to be considered in conjunction with the peculiarities of the Internet if one wants to gain a deeper insight and derive useful implications for practice. The next paragraphs address these topics in more detail.

CONSUMER AND PRODUCT CHARACTERISTICS

Attitudes

Consumers’ attitudes towards e-commerce have a significant influence upon the usage of online retailers, and could even discriminate between e-buyers and non-e-buyers (Helander & Khalid, 2000; Goldsmith & Bridges, 2000; Goldsmith & Goldsmith, 2002); for instance, consumers’ likelihood of buying online is found to depend on

their expectations of the benefits to be obtained from doing so (Lee & Tan, 2003).

Enjoyment and ease of use were identified as a strong predictor of attitude toward Internet shopping in a study by Childers et al. (2001), but O’Cass and Fenech (2003) also found that pleasure-driven “recreational” shoppers have a more positive attitude towards e-commerce than goal-oriented “economic” shoppers, who see shopping as a duty or a task. Consistently, a positive relationship has been suggested between the experience of “flow” and the hedonic value of consumers’ online experiences (Hoffman et al., 2002; Sénécal et al., 2002).

Attitudes toward the use of technology also influence the perceived value of e-commerce (e.g., Venkatesh, 2000). Just like Massara and Scarpi (2004), who suggest that attitudes could discriminate between buyers and non-buyers better than demographic variables, Meuter et al. (2003) suggest that “technology anxiety” is a better predictor of using the Internet than demographic variables. Indeed, the level of technology anxiety was found to be inversely related to the use of the Internet and to the likelihood of engaging in positive word of mouth.

Hence, managers should keep their Web sites easy to use and avoid the use of non-essential technological complexity, in order to minimize the technology anxiety of some users (Meuter et al., 2003; O’Cass & Fenech, 2003). At the same time, similarly to atmospheric variables in off-line retailing, the use of colors, music, and other sensory features of the Web site should be carefully considered and selected to provide a “pleasurable” shopping experience to hedonic consumers (Citrin et al., 2003; Joines et al., 2003). This will not only prevent the “abandoned cart” syndrome, but also increase consumers’ perceptions that the Web is a valuable way of shopping.

Risk Perception

As risk perceptions appear to affect Internet browsers much more than shoppers (Forsythe & Shi, 2003), this may help differentiate between the two groups of consumers. Lee and Tan (2003, p. 879) state:

Since Internet shopping is a high technology form of non-store shopping, consumers will tend to perceive a higher level of risk when purchasing products...the perceived product and service failure rates will be higher under online shopping than under in-store shopping.

Specifically, four types of perceived risk may prevent browsers from becoming shoppers: financial risk, time/convenience risk, product performance risk, and privacy concerns.

Other risks frequently associated with e-commerce include credit card fraud, inability to touch the product,

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