

## Chapter 2.4

# Development and Testing of an E-Commerce Web Site Evaluation Model

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### ABSTRACT

The scope of this research is to develop and test a model for evaluating B2C e-commerce Web sites. Consequently, this study seeks to investigate the relationship between the Web site interface of B2C e-commerce and virtual customer behavior, concentrating on purchasing attitude and intention. The objective of this article is, therefore, to research which features of a virtual store effectively influence the user purchasing process via the Internet. In order to achieve this aim, the technology acceptance model was adapted for pertinent theoretical references about consumer behavior on the Web. The model developed was then tested and validated through a structural equation modeling approach. An empirical analysis of the CD e-retailing industry in Brazil

was then conducted. The study concludes that, for the electronic commerce of CDs, ease of use, trust, pleasure, and attractiveness as perceived by visitors to CD e-retailing Web sites are key issues for understanding customer attitude and purchasing intention.

### INTRODUCTION

In a virtual enterprise, most of the contact with customers hinges on the interaction between the customer and the Web site. However, most B2C e-commerce Web sites were not developed to cater to this aspect, thus creating obstacles to winning over user trust in order to make the customer feel sufficiently comfortable to conduct a commercial transaction (Zhang, Small, von

Dran, & Barcellos, 2000). Indeed, some Web sites effectively discourage the purchase, producing results that are diametrically opposed to those desired (Nielsen, 2001).

Nonetheless, the online retailing industry has experienced sustained growth due to the Internet. This digital channel has increased market-share in the retailing industry as a whole (Parente, 2000). However, very little is yet known about how this virtual environment affects customer behavior, that is, customer attitude and intention throughout the course of the purchasing process. Moreover, it is important to stress that in this specific scenario, all interaction between the customer and the digital company is developed via the Web site. So, its characteristics are linked to the subjective and objective elements that will influence the purchase, which makes careful planning of the Web site of paramount importance, as this will either lead to the success or failure of a virtual enterprise (Nielsen, 2001).

Hence, the scope of this article is to build a B2C e-commerce Web site evaluation model that makes it possible to pinpoint the Web site characteristics that contribute to improving the virtual customer's attitude and purchasing intention. This model will then be applied to the Brazilian CD e-retailing industry. Similar studies regarding B2C e-commerce Web site evaluation have already been undertaken by several authors (Lohse & Spiler, 1999; Turban & Gehrke, 1999; Zhang et al., 2000; Zhang & Dran, 2001; Schubert & Selz, 1999; Ledered, Mauin, Sena, & Zhuang, 2000; Heidjen, 2001, to name but a few), though all of them use different methodologies and pursue varied objectives.

In this research, an attempt was made to adapt the different aspects of existing models, distinguishing clearly between the external aspects of Web sites, namely those related to the idiosyncrasies of the user, from their internal aspects, that is, those related to their design. In this way, relationships between the different factors under scrutiny were sought, in order to understand their contribution to the closure of an online sale.

This article is structured as follows. First, the theoretical background used to develop the model is presented. The technology acceptance model (TAM) adapted to B2C e-commerce, as well as the classification of online customers, is then explained. Using this bibliographical review, the research methodology adopted, the hypotheses to be tested in the article, and the model developed to evaluate the influence of the e-retailing Web site on the increase of customer attitude and purchasing intention are set forth. The model developed is then tested, validated, and reviewed through its application to the Brazilian CD e-retailing industry. Finally, the contributions and limitations of the study are presented, in addition to recommendations for further research addressing this area.

## **BIBLIOGRAPHICAL REVIEW**

### **Consumer Behavior on the Web**

According to Hoffman and Novak (1995), the relationship between clients and companies changes with the passing of time, thanks to the new possibilities that the Internet has brought to marketing for: i) seeking new forms of response on the part of consumers, ii) increasing penetration in target segments, and iii) increasing client reach. By means of the Internet, organizations seek to increase the influence of their power, without losing the quality and personal touch in attendance.

For Brondmo (2001), relationships between the client and the company on the Web fall into a predictable cycle of four stages, namely (i) awareness, (ii) permission, (iii) involvement, and (iv) loyalty.

In order to get the client's attention, it is necessary to implement promotional actions that are aligned with the marketing plan of the company and based on the type of relationship that one seeks to develop with the client (Brondmo, 2001).

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