Chapter 20

An Integrative Framework on the Psychological Variables Explaining the Consumers' Use of E-Commerce-Based Recommendation Systems

Francisco J. Martínez-López
University of Granada, Spain

Juan Carlos Gázquez-Abad
University of Almería, Spain

Inma Rodríguez-Ardura
Open University of Catalonia, Spain

Claudia C. Cabal-Cruz
University of Quindío, Colombia

ABSTRACT

A conceptual model to understand the consumer's adoption and use of certain website recommendation system is presented; the research problem is tackled from a psychological perspective. The authors base on, adapt and integrate classical theories of consumer behavior with particular theories developed in the framework of computer-mediated environments. The model proposed, along with the relations analyzed among the variables considered (a total of 16 research propositions), should be of help for recommendation systems designer and website managers, in order to work with systems more aware of the psychological process experienced by consumers when interacting with them.

INTRODUCTION

Recommendation systems (RS) represent a very useful tool to be applied in e-commerce based Business-to-Consumer relations. Such systems, if well designed and applied, should contribute to efficiently apply a mass-customization approach to manage the relationships with customers. Doubtless, their study is very necessary. However, research efforts have been usually characterized by a technical orientation, coming from areas as information systems and computer science (Xiao and Benbasat, 2007). Thus, proposals and solutions that can be found in regard to this question, though numerous and rich, have not paid enough attention to other perspectives which deserve analysis. In particular, a key perspective is that which help to understand why consumers get into interactive process with recommendation systems of websites. Reviewing the literature, few and notable attempts to model the consumers' adoption and use of these systems can be found (Wang and Benbasat, 2005; Xiao and Benbasat, 2007), though they present diverse weaknesses, depending on the case; for instance, a lack of enough attention to psychological variables or, if so, development of models not detailed enough to explain it in a more complete manner. Anyhow, recommendation systems' adoption, use and other related questions which help to know their influence in the online consumption behaviours are elements of an area of research with many opportunities for future studies yet in the e-marketing arena.

This paper is a theoretical attempt to model the consumer's process related with the adoption, use, main psychological and buying-related outcomes, and future use of a website recommendation system. The conceptual model presented here works mainly with psychological constructs, and it is product of a reflected integration of diverse general consumption theories, as well as specific approaches, to explain the acceptation of information technologies. In particular, the Technology of Acceptance Model (TAM), the integrated Trust-

TAM model for online shopping the Theory of Planned Behaviour, an evolution of the Theory of Reasoned Action, and the theories of Flow in online environments. A total of 16 theoretical propositions are introduced and discussed.

Finally, the paper is structure as follows. First, we present diverse questions related with the general framework of the recommendation systems and with their interest from a marketing perspective in particular. Next, we introduce the basis of our conceptual model, its constituent variables/constructs, and the relations set between them. Lastly, the paper is closed with some concluding ideas.

BACKGROUND

Overall Overview

Recommendation systems –also known as "recommendation agents", "recommender systems", "recommendation systems", "shopping agents", "shopping bots", "comparison shopping agents", "product RAs", "e-commerce RAs" and "e-commerce product" (Xiao and Benbasat, 2007)– belong to impersonal sources providing personal information to consumers. This is a particular type of source highlighted for its potential for consumer research in the near future (Senecal and Nantel, 2004).

Notwithstanding, even though recommendations provided by these systems are observed to be less trustworthy or expertise than other sources (e.g.: human experts' and other consumers' evaluations), they seem to be the most influential in consumers' online choices (Senecal and Nantel, 2004). Besides, if it is considered that RS are able to articulate recommendations through diverse alternatives, their potential to stimulate and drive the consumers' selection of items in certain website is evident. In particular, it should not be only considered recommendations of products provided by intelligent agents, but also the col-

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