Chapter 18
Mobile Store Environment Dynamics: An Interdisciplinary Approach

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ABSTRACT
The development and rapid diffusion of m-commerce has attracted lately a great deal of research interest. Researchers from many different disciplines and domains (e.g. Strategic Marketing, Human Computer Interaction, Consumer Behavior, Environmental Psychology, Information Technology, Retailing, E-Commerce, etc.) attempt to examine and better understand this new medium, following different scientific paths. The current chapter constitutes an interdisciplinary research effort on that field placing particular emphasis on the design qualities of the mobile store environment-atmosphere and its effects on users'/consumers' behavior. To that end, the concept “m-atmospherics” along with a corresponding conceptual model are introduced as the theoretical vehicles that can well support the initiation of future research attempts measuring m-atmospherics effects on consumer behavior.

INTRODUCTION AND OBJECTIVES
The rapid growth of mobile telephony has been the basis for the development of mobile commerce (m-commerce). M-commerce is the buying and selling of goods and services through wireless hand-held devices, such as cellular telephones, personal digital assistants (PDAs) and wireless computers (Michael and Salter, 2006). Proponents of m-commerce estimate that its growth and diffusion will surpass that of electronic commerce (e-commerce) (Lee and Benbasat, 2003). The development and rapid penetration of m-commerce, however, raise considerations about the dynamics of this new alternative shopping channel. Specifically, m-commerce offers new business opportunities, new experiences for users and new challenges for marketers and de-
signers that should be carefully investigated and strategically planned (Holtzblatt 2005).

Positioned in the mobile retailing (m-tailing) research area, the present chapter investigates the design elements of the mobile store environment. The mobile store environment shares many common characteristics with online (i.e. “traditional” web-based) store environment but it is distinct from it at the same time. This chapter:

1. Presents the objectives of mobile store design.
2. Develops a typology of the principal components/dimensions of the mobile store environment.
3. Highlights the differences between the online store environment and the mobile store environment.
4. Develops a conceptual model for further studying the effects of the mobile store environment on consumer behavior.
5. Overviews the strategic aspects of the mobile design interface.
6. Discusses the implications for marketers and suggests future research ideas for scholars.

The aforementioned issues will be addressed with respect to different, and in some cases conflicting, disciplines. More specifically, principles from strategic marketing planning, consumer behavior, human-computer interaction and environmental psychology will be drawn towards the development of a conceptual model.

**MOBILE STORE DESIGN: THE 7C FRAMEWORK OF THE CUSTOMER INTERFACE**

Although e-commerce and m-commerce share many common aspects, each also possesses unique characteristics. The most distinctive feature of m-commerce is the facilitation of enhanced information network access (Stafford and Gillenson, 2003). Given the fact that users actually interact through their mobile device interface, the design and development of effective mobile interfaces (i.e. device and interface) is a major determinant for the penetration and growth of m-commerce.

To that end, Lee and Benbasat (2003; 2004) developed a reference framework that facilitates the development of effective m-commerce interfaces based on Rayport and Jaworski’s (2001) framework of seven design elements for the customer interface (the 7C framework). The 7C framework was developed primarily for studying and analysing e-commerce interfaces. The seven factors of Rayport and Jaworski’s (2001) framework are: context, content, community, customization, communication, connection, and commerce. Given the difference between e-commerce and m-commerce in terms of hardware and software related issues, the vast majority of researchers tend to agree that the design principles from e-commerce cannot be entirely applicable in the context of m-commerce (Chae and Kim, 2003). For this reason, Lee and Benbasat (2004) conducted comparative analysis of m-commerce customer interfaces employing the 7C framework and extended this framework to the mobile context. Similarly, Lee and Benbasat (2003) note that the mobile setting increases the user’s cognitive burden and they considered the mobile device constraints that demand careful deliberation on structuring the content appropriate to small screens. Therefore, the 7Cs in the context of m-commerce are formulated as follows:

- The **Context** factor refers to the way that the mobile interface is developed with the use of functional and aesthetic cues. Lee and Benbasat (2003) recommend the adoption of a shallow hierarchy (i.e., fewer levels with more choices within each level) rather than a deep structuring hierarchy (i.e., more levels with fewer choices within each level). The shallow hierarchy design