Chapter I
Constructing a Model of the Adoption of New Technologies of U–Commerce

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ABSTRACT

The rapid growth of u-commerce, the new generation of e-commerce, together with the need for the adoption of new technologies, has necessitated the need for effective organizational changes to this challenging and eminent trend. The authors posit that firms should explore the consumers' perception of u-commerce and further exploit the strategic advantages of u-commerce with reference to their adoption of new u-commerce technologies. They propose a conceptual reference framework for helping organizations deal with this dynamic situation.

INTRODUCTION

The emergence of ubiquitous commerce, or u-commerce, is considered to be a major revolutionary paradigm shift in the next-generation mode of e-business, which will be of significant interests to both academics and managers.

U-commerce (ubiquitous commerce, or sometimes known as ultimate commerce) is the use of ubiquitous networks to support personalized and uninterrupted communications and transactions

between various types of users (Viswanathan, 2000; Fram, 2002; Watson et al, 2002). U-commerce is considered to be substantially more advanced than PC-based e-commerce (Watson et al, 2002). As such, u-commerce is believed to have more competitive advantages and growth potential than e-commerce and is expected to replace completely e-commerce eventually (Gallaugher, 2002; Galanxhi-Janaqi & Nah, 2004).

In this chapter, we intend to analyze the implications and acceptability of new technologies in relation to u-commerce based primarily on the dimensions of six U's, namely, ubiquity, universality, ultra-yield, ultimacy, usefulness, and uniformity (Davis et al., 1989; Junglas & Watson, 2003; Galanxhi-Janaqi & Nah, 2004). We plan to investigate the implications of the users' perception of u-commerce and we further exploit the strategic advantages of u-commerce with reference to the adoption of new technologies by organizations.

We intend to provide a conceptual framework for exploring the following:

1. The adoption of new technologies related to u-commerce by potential buyers in u-commerce.
2. The adoption of new technologies related to u-commerce by organizations.
3. The possible competitive advantages and potential benefits of the adoption of new technologies by organizations in relation to their company performance.

Because of the ubiquitous nature of u-commerce, the study of the adoption of new technologies of u-commerce can have extended and universal implications to practically most of places of the world. Our proposed framework can make significant contributions to a more in-depth understanding in the spread and acceptability of u-commerce through knowing how relevant new technologies are adopted.

PRIMARY TARGET OF ANALYSIS

Our proposed conceptual framework is about the adoption of new technologies in relation to u-commerce, the new generation of e-commerce, based on ubiquitous networks. We incorporate the approach of ambidexterity by combining the perspectives of both exploration and exploitation. Exploration is about the experimentation with new, distant and sometimes uncertain alternatives, while exploitation is about the refinement and extension of existing competencies, approaches, methodologies and paradigms exhibiting potentially attractive, positive, predictable and proximate returns (March, 1991: Lumpkin & Dess, 1996; O'Reilly & Tushman, 2004; Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004).

In the proposed framework, we are exploring new concepts, new insights and new buying behavior in the ubiquitous world of u-commerce with reference to both the demand and supply sides of u-commerce, which we believe, are still not fully understood by most marketers and scholars (cf.: Stevens & McElhill, 2000; Struss et al., 2003,). The implications of our model will be of interest to practitioners in u-commerce and also academics in organizational theories, marketing and IT fields, who are keen to know how they can perform further relevant research and position well themselves in the next generation u-commerce.

TERMINOLOGY

Since we intend to explore new ground, we need to introduce and explain some new terms. U-commerce, or ubiquitous commerce, is defined as the use of ubiquitous networks to support personalized and uninterrupted communications and transactions between a firm and its various stakeholders, including customers, to provide a level of value over and above other types of traditional commerce (Viswanathan, 2000; Fram,

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