Chapter III
Adoption and Diffusion of Internet Banking

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ABSTRACT

This chapter reviews important theories—the diffusion of innovations theory, the theory of planned behavior, and the technology acceptance model—in information systems that explain the adoption and diffusion of new technological innovations especially in the context of Internet banking. These theories taken together provide us with psychological models that influence the adoption of a new delivery channel for banks, that is, Internet banking. Empirical works that have investigated these theories are discussed. A critical perspective is offered that highlights the theoretical and methodological limitations of these models. Newer and richer models that take into account the socio-historic contexts of technology adoption are called for. Approaches that complement or challenge positivistic methodologies that are interpretive are presented in a case study. Relating theory to practice this chapter discusses possible future trends in Internet banking that could make an attempt to include populations that are not included in the modern electronic formal mainstream financial systems.

INTRODUCTION

Internet banking is an emerging technology that permits conduct of banking transactions through the Internet. “Internet banking” refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device. Internet banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. Soon, the products and services obtained through Internet banking may mirror products and services offered by other bank deliv-
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Every channel such as traditional branch banking, automated teller machines, phone banking, and call centers (Gartner, 2003). Banks with a physical brick-and-mortar presence or virtual banks can offer Internet banking. Virtual, branchless banks can also offer Internet banking, although virtual banks without physical offices may offer their customers the ability to make deposits and withdraw funds via branches or ATMs owned by other institutions (Gopalakrishnan, Daniel, & Damanpour, 2003).

With the widespread growth of the Internet, customers can use this technology anywhere in the world to access a bank’s network. The Internet, as an enabling technology, has made banking products and services available to more customers and eliminated geographic and proprietary systems barriers. With an expanded market, banks also may have opportunities to expand or change their product and service offerings. Global Internet access had exceeded more than one billion people by December 2005 (Lichenstein & Williamson, 2006). In 2005 India recorded 38.5 million users until November. India now accounts for 50.6 million Internet users and ranks as the fourth largest among the global Internet users after the United States, China, and the European Union (Hindustan Times, 2006). This figure is up by a substantial 54% from 25 million in 2004. A broadband policy and other initiatives by the IT and Telecom Ministry in India have encouraged increased adoption of the Internet. Today, a monthly broadband subscription costs as little as 199 rupees (US$4.50). The room for “prospective customers” is quite high.

This chapter focuses on adoption studies in Internet banking. There are push factors and pull factors that enable adoption of Internet banking, though adoption delays and realization delays exist. The second section begins with a brief description of Internet banking which provides a Web interface to a bank. This section addresses issues such as economic benefits and profitability gains in introducing Internet banking for banking establishments, and the structural and technical preconditions necessary for Internet banking to be adopted by banking customers (the access to and the pervasive presence of basic Internet resources). The third section deals with the problem of trust in electronic commerce. The reason why electronic commerce has not succeeded is due to the fact that there are not sufficient institutional and social frameworks that guarantee a trustworthy electronic environment to the customer. A review of trust literature is made and Internet banking is examined in this context as security and privacy concerns emerge when financial transactions are made over the Internet medium.

The fourth section reviews state-of-the-art research in the adoption of Internet banking through three different theoretical lenses. First, the diffusion of innovations theory is outlined. Next the theory of planned behavior and the technology acceptance model are described. This is followed by an analytical discussion of recent research work in this domain. In the fifth section, two case studies, one each from New Zealand and Australia, are discussed. A brief section on possible future trends in Internet banking is included, and the last section concludes this chapter.

ISSUES AND TRENDS IN INTERNET BANKING TODAY

Internet banking provides competitive advantage to banks. Customers today not only expect but demand Internet banking facilities when they open new accounts. This situation is particularly true in developed economies. This section provides a description of Internet banking facilities, the economic benefits of introducing Internet banking, and the physical infrastructure requirements or enabling technologies necessary for Internet banking.
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