Understanding Internet Banking Adoption and Use Behavior: 
A Hong Kong Perspective

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ABSTRACT

This study investigates adoption/use behavior within the context of Hong Kong Internet Banking services. A research framework based on the extended Technology Acceptance Model (TAM2) and Social Cognitive Theory is developed to identify factors that would influence the adoption and continue use of Internet Banking. Structural Equation Modeling (SEM) is employed to examine the entire pattern of inter-correlations among the eight proposed constructs, and to test related propositions empirically. A survey involving a total of 499 university students is conducted and confirmatory factor analysis used to determine the measurement efficacies. The results reveal that both subjective norm and computer self-efficacy indirectly play significant roles in influencing the intention to adopt Internet Banking. Perceived ease of use has a significant indirect effect on intention to adopt/use through perceived usefulness, while its direct effect on intention to adopt is not significant.

Keywords: Internet banking; technology adoption; Technology Acceptance Model; structural equation modeling.

INTRODUCTION

Hong Kong is an international financial center well known for its efficiency and its ability to adapt and keep up with the times. Recently, however, the Hong Kong banking industry has been losing competitive advantages in some areas, with the adoption of Internet Banking being one of them. Hong Kong banks have been slower than some other international banks in joining the e-commerce evolution, which first emerged in the United States in mid-90s. Financial institutions in the U.S. have introduced and promoted online banking to provide better customer services. Many property and stock investment firms in Hong Kong have also jumped on the bandwagon and adopted the Internet as a channel for providing better and more efficient services...
to their clientele. However, Hong Kong’s banks are still quite slow in providing Internet Banking services that many overseas customers take for granted. This is certainly uncharacteristic of Hong Kong’s economic development.

Courtier and Gilpatrick (1999) recommend that financial institutions regularly survey or gauge customers’ needs and desires before introducing any banking strategies on the Internet. Moreover, customers’ expectations and acceptance of the new technology and their beliefs in their ability to use it directly influence their needs and desires to adopt it. This study follows this line of thought. Specifically, the main objectives of this study are to identify factors influencing the adoption and use of Internet Banking; to investigate whether differences exist between the determinants of adopting and using Internet Banking; and to examine the degree of mediating effects of the two constructs in the Technology Acceptance Model (TAM) between the antecedents and intention to adopt/use Internet Banking via a structural equation model in the Hong Kong context.

Following the approach taken by Karahanna, Straub, and Chervany (1999), this study combines innovation attributes and attitude theories in a theoretical framework to examine potential and early adopters’ reasons for adopting and using Internet Banking. This study also attempts to provide a better theoretical understanding of the antecedents of user acceptance and user resistance to adoption and continue using Internet Banking in Hong Kong. In addition, it extends TAM by adding perceived risk and computer self-efficacy as external variables for perceived usefulness and perceived ease of use.

Perceived risk is an external variable first introduced in marketing research in the study of innovation diffusion and adoption (Frambach, 1993, 1995; Ostlund, 1974). The importance of perceived risk has also been examined in IS research, especially in Internet Banking literature (Bhimani, 1996; Cockburn and Wilson, 1996). The perceived lack of security and privacy over the Internet has been a recognized obstacle in people’s adoption of electronic commerce. Thus, customers will adopt Internet Banking only when they perceive it as being low-risk. Computer self-efficacy is adopted from the widely accepted model of individual behavior in social sciences research, or as it is better known, Social Cognitive Theory (Bandura 1977a, 1977b; Bandura 1978, 1982, 1986). Evidence of the relationship between self-efficacy and using a computer can be found in a variety of studies (Burkhardt and Brass, 1990; Gist, Schwoerer, and Rosen, 1989; Hill, Smith, and Mann, 1986; Hill, Smith, and Mann, 1987; Webster and Martocchio, 1992, 1993). Users of Internet Banking need to have the necessary knowledge to operate a computer and use the Internet. Therefore, computer self-efficacy helps to explain the adoption and rejection decisions of the users. It is with the above observations in mind that the present researcher has decided to incorporate risk perception and computer self-efficacy in order to give a more in-depth analysis of adoption/use behavior of Internet Banking.

Consequently, this study has two theoretical contributions. It is the first study to empirically examine the different influences of technology acceptance constructs, together with risk perception and self-efficacy, on both the adoption and use behavior of Internet Banking. Second, it provides a theoretical framework that differentiates adoption and usage based on theories of social psychology and attitude formation. Aside from theoretical values, knowing which criteria are important for adoption
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