

## Chapter 2

# Quantifying Factors Influencing the Adoption of Internet Banking Services in Greece

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### ABSTRACT

*A growing phenomenon in the Internet is the rising exploitation of sophisticated security means (e.g. cryptography, digital signatures etc.) toward the development of novel commerce services for providing electronic transactions, collaborating with business partners or serving customers, regardless of geographical and time limitations. This paper discusses, presents and elaborates on the various factors that affect the adaption of Internet banking services in Greece. In particular, it deals with the factors that have been developed within the framework of providing e-banking services over an insecure shared medium like the Internet and affect the Internet Banking customer acceptance. A factor analysis is performed based on the gathered results provided by customer-questionnaires of ALPHA Bank branch in Greece in order to quantify the various parameters that affect the use of an Internet Banking System. The findings of the analysis show that despite the fact that Internet Banking in Greece is steadily increasing its penetration, factors like security, ease of use and perceived usefulness of a system play a major role on the final decision of the customer to adopt an Internet Banking System.*

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## INTRODUCTION

Communication and computer networks have currently revolutionized and popularized the concept of network-based retail financial services provision among people who are pressed for time and want to accomplish useful tasks in a more efficient and cost-effective manner at any time of day or night regardless of their physical position. Online banking was and remains the B2C e-finance popular application and has been instrumental in developing the stickiness that many business models require in order to prosper.

Especially lately, there is a significant use of the Internet as a shared telecommunication channel for performing financial transactions and offering bank services. The integration of the Internet – as a worldwide network infrastructure – with traditional banking services provided a new class of bank services, which are generally described as “Internet Banking” (IB). For banks, Internet Banking initiative brings: different and arguably lower barriers to entry; opportunities for significant cost reduction; the capacity to rapidly re-engineer business processes and, even greater opportunities to sell cross border (Banks, 2000). Each and all of these potential benefits provide for increased competition and the ability to acquire market leadership from established players. Thus, banks are moving towards the provision of multimodal Internet banking services, offering to customers innovative products with wider choices and at a lower cost.

Conversely, most customers are used to conducting traditional transactions instead of the electronic ones. They are also used to acquiring, touching and examining the transaction receipts after its completion. Moreover, the face-to-face contact is closely related to interpersonal trust in business deals and transactions, while in the new environment of faceless electronic transactions the concept of trust has to be reconsidered on a new basis due to the existence of some security-related limitations, which can be classified into

two discrete categories: The technical and non-technical ones.

On the one hand, concerning the technical limitations, since e-banking is based on the technical progress and evolution of the communication networks, respective technical limitations arose, limiting the diffusion of the relevant e-services. When operating in the Internet, a lot of reliability, security and standardization issues appear, mainly due to the fact that the Internet was initially developed for educational purposes, and therefore little attention was paid on how the network can be securely controlled and through this control to reassure the data integrity, confidentiality, authentication and availability for supporting novel business models.

Moreover, the network experiences serious problems of traffic and lack of bandwidth because of the rapid increase of connected users. Even though the networking technologies are advancing fast, the need for more bandwidth is increasing even faster and until this is handled, problems in the quality of service (QoS) remains, causing limited or even low performance (Gritzalis, Katsikas, & Gritzalis, 2003).

This trend can be also addressed by the Internet penetration numbers, which show a relatively limited adoption of e-services. According to Roush (2003), several countries like the Scandinavian countries or the USA have a penetration of the Internet reaching 35-50%. But in most of the other countries (even in western European ones), Internet users reach much smaller numbers. If people don't have access to the Internet, then much of the effort does not actually reach the consumer.

From the enterprise side, many bank branches use IT systems which were developed to support different needs and different kinds of software and applications. These independent but also fragmented systems contain valuable business information but have to be integrated with the new ones; in many occasions, the cost of integrating legacy systems with modern ones may be greater than that of actually scraping them. Although,

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