

1 Introduction

With the rapid spread of the internet, the banking industry had to catch up eventually and offer their customers the advantages of this new world. Electronic banking services give its users the opportunity to save both money and time. The troubles of going to a bank branch, waiting there in line and explaining your needs to an employee, have been replaced by a much more efficient process, where the user can log into his account from a PC, laptop or even mobile phone and handle many issues from the comfort of his home, or on the go. This process allows the customer to have easier access to some of the bank's services. Moreover, they avoid a loss of time waiting in line or driving to the bank branch. Over the past three decades, the numerous new information and communication technologies within the financial industry have impacted the way banks service their customers. In other words, the Internet has sparked an IT-based revolution in the financial services sector that has radically altered the way that banking services are delivered. In particular, self-service technologies have enabled banks to pursue an electronically mediated multi-channel strategy (Jo Black, Lockett, Ennew, Winklhofer, & McKechnie, 2002). These new technologies referred to as Internet banking (IB), electronic banking or mobile banking, have enabled busy people to complete their financial activities in a cost-effective and efficient manner at any time of the day, without the hassle of actually going to a bank branch (Makris, Koumaras, Koumaras, Konstantopoulou, & Konidis, 2009). Regardless of their physical location, electronic banking allows bank customers to engage in a vast array of financial services such as paying bills, checking account information or transferring funds through bank websites (Tan & Teo, 2000). From the consumer's perspective these new technologies provide new modes of data access, analysis and decision-making regarding one's financial management (Lee, 2009; Luo, Li, Zhang, & Shim, 2010). Electronic banking also helps consumers to decide which banking product fits best to their personal needs (Lee, 2009; Luo et al., 2010). Railton (1985) states that the first self-service technologies in the finance sector emerged in the 1970s, when banks installed the first automated teller machines (ATMs). This was followed by telephone banking services in the 1980s (Ahmad & Buttle, 2002), and in the 1990s, with the emergence of the Internet, banks further extended their existing distribution channels by offering web-based banking applications (Tan & Teo, 2000; Bhattacharjee, 2001; Suh & Han, 2002). Over the past decade, the rapid increase in the number of mobile technologies such as mobile phones and smartphones have encouraged banks to provide mobile banking applications (Barnes & Corbitt, 2003; Laukkanen & Lauronen, 2005; Scornavacca, Barnes, & Huff, 2006). Web-based banking applications, as well as mobile banking services, are also included in the Online and Mobile Banking offerings at the Liechtensteinische Landesbank AG. This major retail bank located in the Principality of Liechtenstein, provided us with the dataset that will be at the core of this research.

Nevertheless, not only consumers gain from the electronic banking revolution. There have also been benefits for the financial institutions. For instance, it increases service quality, which is a necessary factor for survival in competitive markets (Rouibah, Thurasamy, & May, 2009). Moreover, it reduces costs relative to other forms of banking, and provides more timely and complete customer information. Moving clients to e-channels is, therefore, an important issue for the banking industry (Gerrard & Cunningham, 2003). Nonetheless, without the customers actually adopting electronic banking these goals cannot be reached. Thus, financial service providers must aim to have a comprehensive understanding of their client's impressions of this technology (Lassar, Manolis, & Lassar, 2005).

However, there are not only positive aspects to the adoption of these technologies. Especially in the early years, the number of people who actually used electronic banking services was not very high. Usage rates, published by Deutsche Bank research in 2010, suggest that, while each month