

Chapter XXIX

Strategic Perspectives in Mobile Banking: Technology, Value Creation, and Developing Factors

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ABSTRACT

The convergence of the Internet and mobile networks has created new opportunities and applications. Considering mobile business only as an extension of the traditional web can lead to missing out on unique and differentiable qualities for new value-added opportunities. Mobile banking is considered as potentially one of the most value-added and important mobile service available. The chapter examines the technological changes in mobile networks and the innovative attributes of mobile Internet. It advances the theoretical framework of innovation in services to develop a customer centric analysis of m-banking value proposition. The chapter goes on to discuss critical factors in the diffusion of m-Banking and explores reasons of failure and further prospects of success.

INTRODUCTION

The mobile communications market is changing, and the next generation of customers will require more than vocal services. The technological and commercial convergence of mobile networks and Internet finds telecom operators faced with new challenges and enormous opportunities (Booz Allen & Hamilton, 2000).

Thus, in spite of the growth of user numbers and the growing traffic on mobile networks, the rise of competition has led to a strong fall in prices and margins. Differentiating products must be realized less for vocal communications than for data exchanges (IDATE, 2003). The traditional income of telecom operators—initially based on relatively constant subscription fees—will yield more place to economic models based on

mobile Internet. Then, new incomes could emerge from subscriptions to services like data and contents, m-commerce, advertising, and advanced network services like virtual private networks (VPNs) and quality of service (QoS) guarantees. This modification of competition basis in the mobile market is accentuated by deep changes in consumer behavior: the Internet has caused a quick evolution of needs moving from social communication to electronic commerce. So, the convergence of mobile communications and the Internet requires a new analysis of the current model of value creation.

Mobile banking (m-banking) is considered as one of the most important emerging services implying actors from different economic sectors in the m-commerce value chain (Lee, McGoldrick, Keeling, & Doherty, 2003; Celent Communications, 2002; Barnes, 2002). “M-banking” consists of managing a bank account through a wireless Internet-enabled device.

On the basis of the innovation diffusion theory in service sectors, we study the technological tendencies in mobile Internet. Then, we will analyze the development factors of mobile services in the banking industry and their impact on the value chain. Finally, we will conclude with strategic perspectives of mobile banking and its future evolution.

TECHNOLOGICAL CHANGES IN MOBILE NETWORKS

Trends in Mobile Network Evolution: An Overview

Mobile technologies have known many standards:

- The first generation of mobile networks (1G) was based on voice exchange via analog radio frequencies.
- The second generation (2G) is fragmented between IS-54 and IS-95 US’ standards and GSM (Global System for Mobile), which is the most expanded standard (50% of the market share in the world (IDATE, 2003)). However, the 2G standards in general suffer from low capacities in data transmission. Thus, they have been quickly supplanted by standards known as 2.5G (HSCSD, GPRS, and EDGE) which improve data transfer significantly. This step was accompanied by two forms of mobile Internet: WAP and i-mode. The WAP (wireless application protocol) is a protocol without license which has been very quickly adopted by telecom operators and the equipment industry of mobile phones as an access bridge to Web pages throughout a mobile telephone. i-mode was launched in February 1999 by NTT DoCoMo with more than 36.7 million subscribers in Japan (Benchmark Group, 2002). Its popularity is due to the similarity between development language i-mode, the C-HTML (Compact Hypertext Markup Language), and the Internet’s HTML. This resemblance makes possible for subscribers an easy access to Internet services, and facilitates the use of e-mail and the access to thousands of Web pages. Today, NTT DoCoMo—with participation by several mobile operators in Germany, the United Kingdom, and France—is trying to settle into Europe where i-mode is emerging as a benchmarking standard. This intermediate stage of 2.5G standards has allowed the operators and various other actors in content creation to come near a dubious prospects market.
- The heavy investment in third-generation (3G) licenses for the Universal Mobile Telecommunication System (UMTS) standard is a brake for mobile Internet growth.

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