

## Chapter LVI

# Applying Mobile Technologies to Banking Business Processes

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### ABSTRACT

*This chapter discusses the impact of mobile technologies on service delivery processes in a banking environment. Advances in mobile technologies have opened up numerous possibilities for businesses to expand their reach beyond the traditional Internet-based connectivity and, at the same time, have created unique challenges. Security concerns, as well as hurdles of delivering mobile services “anywhere and anytime” using current mobile devices with their limitations of bandwidth, screen size and battery life are examples of such challenges. Banks are typically affected by these advances as a major part of their business deals with providing services that can benefit immensely by adoption of mobile technologies. As an example case study, this chapter investigates some business processes of a leading Australian bank in the context of application of mobile technologies.*

### INTRODUCTION

Electronic commerce has become a dynamic force that has changed the way businesses operate on a global scale (Shi & Wright, 2003). Due to increased globalization, individuals, organizations, and governance frameworks have an increasing dependence on communication technologies. The Australian Communication

Authority envisions that ubiquity is the “best possible outcome” in terms of the future of business and economy in the country. This ubiquity is based on the elements of technology, market dynamics, users, and rules and guidelines (ACA, 2005). All business organizations in this global context are forced to look at this “best possible outcome” in order to stay competitive. This gives rise to several research

questions in the areas of business practices as well as workflow management, and affects the individual and collective social behaviour (Mylonopoulos & Doukidis, 2003). The research areas also focus on the mobile technologies and their application to businesses, with particular emphasis on the method and manner in which services can be delivered using mobile processes. Mobile processes are business processes that are executed with the use of mobile devices such as PDAs (personal digital assistants), mobile phones, or mobile-enabled laptop computers. Thus, mobility, which is the ability to move freely while performing regular business activities, has become an extremely crucial aspect of today's business processes. Furthermore, as per Archer (2004), in order to incorporate mobility, business processes also have to undergo substantial changes themselves to make it essential that the changes are researched and experimented into.

### **Internet Usage in the Banking Sector**

Banks, as primary institutions of service-oriented business, have increasingly leaned towards e-commerce-based operations. Emerging mobile technologies offer "anytime, anywhere" type of banking that results in better customer orientation and provides personalization of services to the customer. The concept of banking using handheld devices, such as PDAs or other mobile devices, is becoming popular as it enhances the Internet connectivity to the fingertips of the customer (Unnithan & Swatman, 2002). The Internet has also provided opportunities for service providers such as PayPal, an online payment processing company founded in 1999, to offer more cost-effective payment-related services similar to banking services to its customers. PayPal, after a mere four years of operation, has become the

most used payment system for clearing auction transactions on eBay (Schneider, 2004), competing directly with the traditional banks. Banks thus face a major challenge and are forced to effect substantial cost reductions in order to be more competitive and offer cost-effective services to its customers. Banks aggressively push their customers to use electronic means for most of their banking, as these electronic transactions are far cheaper as compared to over-the-counter or ATM (automated teller machine) transactions. According to a recent study in the U.S., a teller transaction costs the bank U\$1.07. as opposed to a telephone transaction costing 54 cents, an ATM transaction costing 27 cents, a software-based PC transaction costing 1.5 cents, and an Internet-based transaction costing a mere 1 cent (Money Central, 2005). Mobile devices enable secure and convenient use of e-banking, payments, brokerage, and other types of transactions which are part and parcel of the banking sector (Herzberg, 2003). Another study reveals that among the Internet-based banking users, there is a positive tendency to use mobile devices to do banking transactions (Coutts, 2002). Hence, factors determining the success or failure of the mobile business and how the corresponding mobile systems and applications are designed, in order to provide banks with cost-effective, flexible, and customer-oriented business processes, are of interest to the banking community. The fact that today's banking customers are more educated, along with increasing demand for state-of-the-art services, also add pressure and push the banks towards mobile technologies.

### **Global Banking Industry**

The educated and technology-savvy customers demanding better service and state-of-the-art technology is a global phenomenon in

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