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An Analysis of Features and Tendencies in Mobile Banking Apps

Gianni Fenu[a,*], Pier Luigi Pau[a]

[a]*Department of Computer Science, University of Cagliari, Via Ospedale 72, 09124 Cagliari, Italy*

Abstract

Mobile devices such as smartphones and tablets are being employed alongside personal computers, and even replacing them in some applications. Banks are increasingly investing on mobility, by enabling the mobile web and mobile app channels for online banking, and by providing new mobile payment services. In this paper, the services for off-branch banking offered by several Italian banks are analyzed, showing that mobile apps have surpassed the mobile web channel in completeness of the offer, due to the fact that additional capabilities of mobile devices make possible advanced features and applications. An outlook on the near future is provided, remarking that mobile marketing and mobile recommender systems can greatly take advantage of being run natively on devices, making it desirable for businesses to invest on designing mobile apps.

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Keywords: Mobile apps; Mobile banking; Mobile device services; Maturity assessment; Electronic payments.

1. Introduction

The market penetration of smart mobile devices has steadily increased in the past few years. Feature phones are being replaced with smartphones; tablets find applications both as work instruments and as part of everyday life. Compared to laptop computers, tablets offer virtually instant availability and longer battery life, in addition to being easier to carry. For these reasons, they are being deployed alongside or in replacement of laptop computers. As mobile devices become widespread, there is a growing interest on the part of businesses, including banks, toward investments in mobility. There is an expected return of investment in various forms; for example, an increase in customer fidelity, the ability to reach a greater number of potential customers or to attain a better conversion rate of prospect customers, and extra revenue obtained through a deeper analysis of customer data or the introduction of entirely new services.

In this paper, a method to analyze the services offered by a set of banks on mobile channels and evaluate the maturity of each offer is described and applied on a case study comprising fifteen Italian banks. Based on results, an outlook for the future of mobile banking services is given. In Section 2, preliminary observations on how the evolution of service suites brings added value for involved players are made, outlining the motives for investments on mobility. In Section 3, a foundation for comparison of access points to banking services is set up. Section 4 introduces a case

* Corresponding author. Tel.: +39-070-675-8759 ; fax: +39-070-675-8504.
E-mail address: fenu@unica.it

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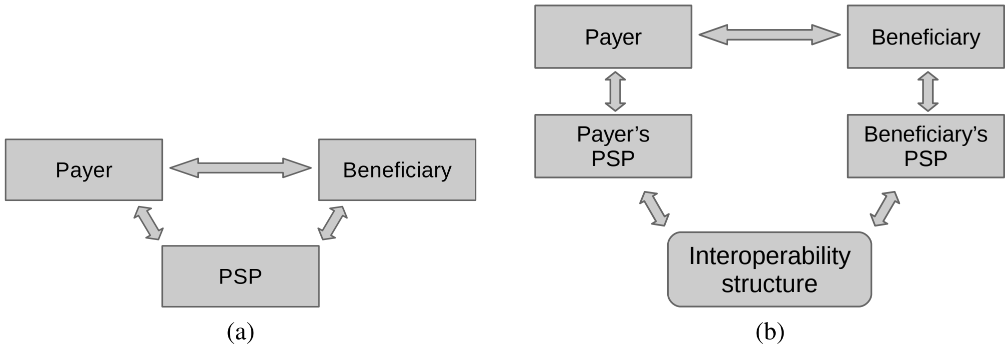

Fig. 1. Conceptual models representing the actors involved in a mobile payment transaction and the links over which communication occurs. The payer and the beneficiary may refer to the same Payment Service Provider (PSP), or each to a different one. (a) Three-corner model with a single PSP. (b) In the general case, two Payment Service Providers are present, and an interoperability structure enables transactions between them if they use incompatible payment schemes. In situations where PSPs use compatible payment schemes, the interoperability structure is not necessary, and direct communication between PSPs is possible. Source: White Paper Mobile Payments (with adaptations).

study and describes the method used to determine how complete the offer of each bank is. In Section 5, the degree of maturity of each mobile channel that makes up the offer is evaluated, and aggregate results are discussed. Lastly, in section 6, conclusions are drawn.

2. Mobility and mobile banking as business opportunities

The term 'mobility' refers to the higher degree of independence from space and time achieved in ICT processes by the employment of mobile devices. The drive behind investments toward mobility can be justified by the desirability of ubiquitousness or efficiency of business processes, or even just cost savings. Investments can be directed at increasing the mobility of the workforce, or taking advantage of an increased mobility of the customer base.

On the part of banks, this represents an advanced stage of a process started with the introduction of home banking. Costs per transaction are significantly lower outside of branch banking[1], which has made it possible for banks to charge lower fees for transactions carried out online by their customers, thus encouraging a migration of customers toward home banking. Mobile banking can be seen as a response to the needs of a number of customers as they change their habits, using their mobile devices progressively more often, at the expense of their personal computers.

As customers visit bank branches less often, personal interactions between customers and employees do not happen as frequently as in the past. However, personal knowledge of customers had been a useful 'hidden asset' for banks. Part of the bank employee's work was indeed to learn to know the customers and put this knowledge to good use: bank tellers could be more successful at recommending investments to those customers, whose needs and inclinations they better understood; branch managers relied on experience and a good understanding of the situation and perspectives of an entrepeneur when approving loans. To compensate for the decreased knowledge of customers, banks have developed an increasing drive to analyze data pertaining to each customer, in order to gather a comparable degree of knowledge of their habits and needs. As the number of transactions grows, it becomes possible to tap into transaction histories to extrapolate patterns and other information, useful to improve or establish mobile marketing services[2].

This serves as a reason for banks to push customers toward use of their mobile payment services. By allowing ubiquitous access to payment services, banks increase their knowledge of customer habits, in addition to tapping into a new form of revenue, as payment services are offered in ways that were not possible before. Note that, consistently with the definition of mobile payments[3], ubiquitousness does not strictly require the use of mobile Internet connectivity; remote mobile payments may happen by accessing the Internet through wi-fi capabilities of a mobile device, and the use of NFC technology for proximity payments still constitutes a form of ubiquitous access to a mobile service.

The ecosystem for mobile payments and mobile commerce involves several stakeholders, ranging from banks and merchants to mobile network operators (MNO) and mobile operating system makers, and potentially including other kinds of players. This ecosystem, as well as the modifications in revenue streams due to the added value introduced by

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