Summary of Wireless@kth small project: Mobile P3

General about the project

Background and objectives

The driver for the project was to investigate the slow uptake for mobile payment services in countries like Sweden and especially the low level of involvement of mobile operators. The main problem to address in the project is the weak position of mobile operators in mobile payments services in Sweden and other European countries, what are the reasons and what can be done?

The intended contribution in the project is to see beyond and beside the traditional business logic of mobile operators including single operator offers, secure element solutions based on SIM cards only, vertically integrated value chains and pure business-to-consumer approaches. Many business opportunities can be identified if mobile operators understand that payments and ticketing services support other types of (non-telecom) services and the relations between “other” businesses and the their customers. The results will be in the form of business and service scenario analysis including both existing services and concepts (that for some reasons do not take off) and new future scenarios and service concepts that enable mobile operators to take a more dominant position at the market.

Project partners

The project participants are Dr. Jan Markendahl from Wireless@kth, Docent Niklas Arvidsson from KTH Center for Banking and Finance (CEFIN) and Mikael Hellberg, Business Area Manager for PayEx Mobil and other business developers from PayEx.

Progress of the project

The Industry partner Payex initially contacted KTH and proposed the project that was approved by Wireless@kth June 2011. During the first six month Payex was very active in the project and made substantial contributions. However, in the end of 2011 Payex suddenly decreased the activity level and in the beginning of 2012 the activity level was zero. All attempts to contact Payex and get an explanation were unsuccessful, and the project went into a “wait.-and-see” phase. Fortunately, the KTH researchers had other types of funding (from Vinnova, Sparbanksstiftelsen) and the research activities could continue, mainly due to the Vinnova project MBT-MBT, see below. Since Payex had left the project, the initial research findings (on the role and position of mobile operators) and the remaining funding was used to make a number of larger research applications. In this work we contacted a number of actors at the Swedish market. Hence, another main outcome of the project are the established contacts and the approved research funding, see the sections below.

1 project web site http://wireless.kth.se/mpp/projects/mobile-p3/
Research results and findings

The main research findings regarding the market position and the business opportunities for mobile operators in Sweden in the area of mobile payment services are the following:

1. Mobile payment as a standalone service offer low added value to end-users since card payments is widely used and accepted almost everywhere
2. The value of mobile payments is larger when the payment is combined with some other service or benefit, e.g. SMS tickets for parking or public transport or for pre-order of food and drinks at arenas or at (lunch/fast food) restaurants
3. In order to be able to offer payment service in combination with other services the payment provider needs to have competence and business relations with the providers or the “other” services. For parking and public transport ticket this is not the case for mobile operators, other actors develop competence about public transport, parking, ticketing, etc.
4. SMS tickets for public transport is an area where operator traditionally have had a strong position in Sweden, the relatively high fees (15-30%) and the focus on single tickets limit the possibilities for operators to extend the service offers.

Other results and benefits

Establishment of research collaboration

The project has resulted in establishment of very close collaboration with Docent Niklas Arvidsson at KTH Center for Bank and Finance (CEFIN) and later moved to Industrial Dynamics at KTH. The MobileP3 project enabled linking of the financial, retailing and operator perspectives since Niklas in parallel did run another project on the cashless society (Det kontantlösa samhället)\(^2\).

We should also mention the collaboration with Stockholm School of Economics. This includes co-authoring of book chapter in the yearbook for SSE 2011 and joint presentations at public events:

- “E-commerce - så blev det (inte) och detta kan vi vånta oss”, MTC seminar, 2011-09-15\(^3\)
- “Morgondagens industri”, workshop at SSE 2012-08-29\(^4\)

Finally, due to the research activities in the payment area, Niklas Arvidsson and Jan Markendahl were invited to participate in a European network of payment researchers who organizes the annual Cashless Society Roundtable events. In May 2104 KTH will host this event.

Establishment of contacts with industry actors

During 2011 and 2012 contacts were taken and meetings were organized with the Swedish banks, the Swedish mobile operators, Payment Service Providers (PSPs) like Auriga, PayAir, WyWallet, many parking companies, public transport organizations like Samtrafiken, X2AB, SL, UL and Östgötatrafiken.

Another result was that Niklas and to some extent Jan were interviewed in media and invited to give presentations and/or to be moderator at different public events, see appendix A

\(^2\) http://www.hur.nu/MediaBinaryLoader.axd?MediaArchive_FileID=3b2e7ff7-5d2f-4f8e-ab28-ec050f5bd09&FileName=2013+Det+kontant%C3%B6sa+och+detta+kan+vi+v%C3%A4nta+oss+-+MTC+seminar,+2011-09-15
\(^3\) http://www.hur.nu/forskning/nyttiggorande_och_synliggorande_av_aktuell_handelsforskning/avslutade_ab/e-handelsns_fodelse_och_utveckling/glappet_mellan_teknik_och_anvandare
\(^4\) http://www.hhs.se/se/BusinessAndSociety/Press/News/Pages/SSE-Insights-2012_08_28.as
**Contribution to research applications**

One major result of the project is that a number of research applications were submitted. Here we should note the importance of industry contacts, both in order to understand the overall picture and needs of the (mobile) payment business as well as getting the required support from industry actors. For applications to Vinnova and Wireless@kth one or more industrial partners are needed, for Vinnova project the conentalltion of partners are of key interest.

Besides the phase A and B project proposals to Vinnova in the call “Utmaningsdriven Innovation” applications were submitted to “Riksbankens Jubileumsfond”, “Handelsbankens forskningstiftelser” and to Wireless@kth. The two last applications and the Vinnova phase applicationn were successful and resulted in the MBT-MBT Vinnova project (700 kSEK for 6 month), a PhD student stipend from Handelsbanken (1 MSEK for 3 years of PhD studies) and the Wireless@kth seed project Mobimer (400 kSEK).

Without the funding from Mobile P3 project during this period of time it is quite likely that none of the other project applications had been submitted.

*Figure 1. Research applications enabled by efforts in the Mobile P3 project*
Resources and financials
The research funding was shared by Wireless@kth and KTH CEFIN. The low amount of resources consumed at KTH during 2011 is explained by the Vinnova funding for the project MBT-MBT running in parallel with Mobile. The Vinnova funding was available only until March 2012 and hence this funding was used first, the very same research topics were addressed.

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Ekonomisk slutredovisning av Seed project Mobil P3
Wireless bidrag totalt: 400 000
Transfererat till CEFIN ABE-skolan -175 000
Totalt förbrukat i projektet -218 030
Summa: 6 970
List of publications

Conference papers
Niklas Arvidsson, "Idealized design of a new payment system – a discussion of critical characteristics of a cashless society”, 1st International Cashless Society Roundtable, Copenhagen, April 18-19, 2012

Jan Markendahl, Per Andersson and Lars-Gunnar Mattsson, On business models, actor cooperation and eco-systems for mobile payment systems First International Cashless Society Roundtable (Icsr) Copenhagen, Denmark, April 18 - 19, 2012

Book chapters
P. Andersson, J. Markendahl, L-G. Mattsson, ” Tjänsteinnovationer och marknadsomvandling – fallet mobila betalningar” (in Swedish), Kapitel 6 in I. Benson, J. Lind, E. Sjögren, F. Wijkström (editors); Morgondagens industri – Att sätta spelregler och flytta gränser, (EFI Yearbook 2011), Studentlitteratur

Master Thesis Reports
(Niklas Arvidsson defined the project and was supervisor)

(Niklas Arvidsson defined the project and was supervisor)

(Jan Markendahl defined the project and was supervisor)

Other publications about mobile payments can be found at: http://wireless.kth.se/mpp/publications/
Appendix A. Invited talks, workshops, interviews

Niklas Arvidsson was interviewed in the radio program called Plånboken (The Wallet) about the payment system and its future. The interview was sent in P1, Swedish Radio, on August 10, 2011.

Jan Markendahl and Per Andersson (SSE) gave a presentation about mobile payments at the MTC seminar: “E-commerce - så blev det (inte) och detta kan vi vänta oss”, September 15, 2011.

Niklas Arvidsson was speaker and moderator during the conference called Nordic Payment Forum in Stockholm, March 20-21, 2012. The conference was organized by Affärsvärlden and Talentum Events.

Niklas Arvidsson was interviewed in radio (P4 Kristianstad) on March 27, 2012, on reduced cash-based services in banks and which implications this has for society.

Niklas Arvidsson was interviewed in radio (P4 Jämtland) on April 12, 2012, on reduced cash-based services in banks and which implications this has for society.

Jan Markendahl and Niklas Arvidsson participated in the First International Cashless Society Roundtable (ICSR) in Copenhagen, Denmark, April 18-19, 2012.

Jan Markendahl and Niklas Arvidsson made a presentation on the current situation in the payment market at a one-day conference on payments and ticketing in public transportation (Framtida sätt att betala sin resa i kollektivtrafiken: vilka krav och behov ska tillfredsställas?) that was organized by X2 Kollektivtrafik AB and Samtrafiken i Sverige AB on May 9th, 2012, in Stockholm.

Niklas Arvidsson was interviewed in the magazine called Computer Sweden in an article on the future of mobile payments that was published on May 11, 2012. Link: http://www.idg.se/2.1085/1.448115/tuff-strid-vantar-om-mobila-betalningar

Niklas Arvidsson made a presentation for 300 bankers about the emergence of a new business landscape for payments on Bankdagen, Wednesday May 30, 2012, that was hosted by Tieto at Berns Salonger in Stockholm. http://bankdagen.se

Mobile P3 Workshop June 7 with actors from parking (Easypark, Linköpings kommun, Västerås kommun), public transport (SL, UL,Samtrafiken) and retailing (ICA).

Jan Markendahl and Per Andersson (SSE) presented one chapter about mobile payments at a seminar about the SIR Year book 2011, ”Morgondagens industri”, workshop at SSE 2012-08-29.

Jan Markendahl and Niklas Arvidsson were interviewed in the newspaper Svenska Dagbladet about the emergence of mobile wallets in an article published on September 19, 2012. http://www.svd.se/naringsliv/hard-kamp-om-att/fa-vara-din-planbok_7509812.svd