TRENDS TOWARDS FRAGMENTATION
OF THE MOBILE PAYMENT MARKET IN SWEDEN

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1 Introduction

Many new technical solutions for mobile payment service are proposed, developed and tested by Swedish companies. New solutions are developed by companies like Accumulate, iZettle, Payair, PayEx and Seamless and many pilot projects and tests for mobile payments have been conducted in coffee shops, restaurants and shops (Markendahl, 2011). The mobile operators have formed a company offering mobile payment services (WyWallet). In addition, Swedbank and other Swedish banks have developed mobile phones solutions for payments in shops (Bart) and for transactions between bank accounts of private persons (Swish). Hence, Sweden is an interesting country for research on mobile payment solutions and services. However, we can see a clear trend of fragmentation of services and no emerging “common solution”.

- For **person to person** (P2P) payments both Swish and Wywallet can be used and with a smart phone you can access the internet bank form your mobile phone. In addition, the SEQR solution from Seamless addresses P2P transactions.
- For **retailing and PoS payments** using the mobile phone the retail chain Axfood in parallel run pilot projects with both Swedbank (Bart) and Seamless, in addition Wywallet plan to introduce PoS payments
- Until now **SMS ticket solutions for public transport** have been provided by mobile operators and mobile service providers like SMS aggregators and ticket providers. However, the business landscape in Sweden has changed since new actors and constellations have entered the market.
- For **parking tickets and payments** there exists a multitude of different solutions where the mobile phone is used. This include SMS ticket, parking subscriptions and the use of special parking apps, see figure 1 illustrating this multitude.

Figure 1. Figure 1. Multiple payment solutions are possible for parking tickets

When it comes to the transformation of the SMS ticket market a number of reasons or drivers for this can be identified for this change (Markendahl, 2011).
The Payment Services Directive (PSD); financial regulation states that payment providers need to know how is doing the payments and transaction, one reason for this is to stop “money laundry”. This means that mobile operators need to register subscribers with pre-paid subscriptions. This was used as an intermediate solution by the operators Tele2 and Telenor that applied to be payment providers.

Bill chock and business phone users; mobile operators noticed that the possibility to use the mobile phone bill to pay other non-telecom expenses was not entirely positive. Some consumers reacted on high phone bills which included items like bus tickets, TV votes, candy and soft drinks from vending machines and they experienced a bill chock. In addition, persons with company phone subscriptions could not use this form of SMS payments using the phone bill. Operators saw a risk that the phone usage would decrease.

A need for separate charging solutions was clearly identified by the mobile operators. As an intermediate solution the Swedish operator Telia introduced a separate charging solutions “Telia Mobile Wallet” provided by Payex, Telia did not want to be payment provider. The Swedish operators later on formed a joint venture 4T Sweden offering the separate charging solution WyWallet.

Public procurement of public services; the regional transportation companies are public organizations that need to make official procurements including tender evaluation of competing offers. According to representatives for many regional transportation companies this procurement process may not have been fully identified or understood by the mobile operators and WyWallet. WyWallet also decided not to bid for several of the procurements of SMS ticket and payment solutions, hence other actors like Mobill, IPX, Payex, Samtrafiken, and Seamless made offers and got all contracts except one.

2 Research approach

Data collection if the form of interviews with different types of actors dealing with mobile payment services and solutions has been ongoing since 2009. The main groups of actors are:

- Service providers making use of mobile payment solutions, typically the regional public transportation companies and parking operators
- Providers of mobile payment and ticketing services including mobile operators, mobile ticket providers, aggregators, financial institutions and payment solution providers
- Providers of technology solutions, examples are Payair, Payex, Accumulate,

A first round of interviews was conducted 2010-2011 in order to understand the market position and plans for different actors, this is reported in (Markendahl, 2011). A second round of interviews was done 2012 in order to understand: i) the objective and scope of different pilot projects and trails, and ii) strategies and plans for both solution providers as well as users of the upcoming “new” SMS payment and ticketing services. In February 2013, after the launch of the “new” SMS tickets for public transportation, interviews were made with public transportation companies in the five major cities/regions of Sweden (SL, Västtrafik, Skånetrafiken, UL and Östgötatrafiken) and with some of the providers of the ticket and payment solutions: Mobill, Samtrafiken, Seamless and WyWallet.

For the interaction between market actors and the involved resources and activities basic ideas and the ARA model (Actors, resources and activities) from business network research are used (Håkansson and Snehota, 1995), (Ford et al, 2007). The ARA model approach has been applied to analysis of local wireless access services (Markendahl & Mäkitalo, 2007) and to mobile payment services (Markendahl, 2011).

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1 http://ec.europa.eu/internal_market/payments/framework/psd_en.htm
3 Initial results

We can see a multitude of payment solutions that may be confusing to the consumers and also merchants and service providers making use of mobile phones services. But there are differences between different sectors, for parking services the parking operators and payment providers have developed solutions that enable all different solutions to be integrated into one ticket validation app.

The SMS payments were initially introduced using the phone bill or prepaid SIM card as a payment solution, the mobile operators were naturally involved. The end-users were subscribers of the mobile operators and this customer and billing relation was exploited. For public transportation companies the distribution of roles typically looked like the one to the left in Figure 2. The ticket handling and SMS aggregation was usually managed by one mobile service provider. Note that the ticket validation is managed by transport company, “ticket control” staff with handsets connected to the ticket data base. Also note that the ticket provider and aggregator in this case not are visible to the end-user.

Figure 2. Typical distribution of activities and resources among actors for provisioning of SMS tickets for public transportation in Sweden; until (left: ) and after (right) February2013

After February 1 2013, the “traditional” SMS payment solution involving end-user charging through the mobile operators is longer used. The public transportation companies have made a procurement of “new” SMS payment solutions. In most cases it is two different contracts, one for the technology solutions (i.e. handling the SMSes and the SMS tickets) and for the payment solution. For other applications than local transportation (vending machines, airport couches, fundraising, etc.) the operator owned joint venture WyWallet has taken over the SMS payment contracts. The analysis of all new cases results in a generic map shown in the right part of Figure 2. There is a clear separation between the actors managing the technology solution and the payment solution. The mobile operators are no longer involved and the mobile phone bill cannot be used. Many new actors have entered the market for SMS payments, see table 1.

<table>
<thead>
<tr>
<th>Regional transportation company</th>
<th>Provider of technology solution</th>
<th>Provider of payment solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, Östgötatrafiken, etc</td>
<td>Mobil</td>
<td>Payex and OKB</td>
</tr>
<tr>
<td>Skånetrafiken</td>
<td>Plusdial</td>
<td>WyWallet</td>
</tr>
<tr>
<td>Västtrafik</td>
<td>IPX + Plusdial</td>
<td>Seamless</td>
</tr>
<tr>
<td>SL/Stockholm) (got the contract)</td>
<td>Unwire</td>
<td>Samtrafiken, DIBS</td>
</tr>
<tr>
<td>SL (temporary solution)</td>
<td>Mobill</td>
<td>Payex and OKB</td>
</tr>
</tbody>
</table>

Table 1. Actors and teams that got the contracts late 2012 for technology and payment solutions for SMS ticket services for regional transportation companies in Sweden.
4 References


Markendahl, J. Mäkitalo, Ö. (2007). Analysis of key capabilities and business role interaction for provisioning of public Internet access in local environments, 18th Eur. ITS Conf, Istanbul


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