

**THE FORMATION OF NEW BUSINESS VENTURES IN NETWORKS-
THE FORMATION OF NEW INTERMEDIARIES AND CREATION OF VALUE
FROM THE EXPLOITATION OF TECHNOLOGY
(Competitive paper)**

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Abstract

This paper analyzes new business formation connected to the use of established mobile technologies and associated services. The purpose of the paper is to describe how a set of alternative business network situations can emerge when established wireless application technologies are exploited and new value is created and new business ventures are formed. A set of short cases describe how new business can be created based on established SMS applications and services. The paper discusses central aspects of the formation of new business ventures in networks. Here, focus is on opportunities to create value based on the exploitation of existing technology. The technology is used in a new way and is perceived by existing actors as an opportunity to exploit by creating a new intermediary performing a new role. In business practice, technology development is related to formation of new business ventures, they cannot be separated from each other.¹

Key words

New business, mobile services, industrial networks, end user activities, technology development, entrepreneurship

¹Parts of the text have been presented earlier this year in a work-in-progress paper at the IMP Journal Seminar in Lugano, 8-10th of April 2010. The paper is based on an ongoing research project on near field communication based services in Sweden: "Foundation For NFC/Sensor Network B2B2C Services" (FORCE), initiated by TeliaSonera Mobile Network, KTH Center for Wireless System, and Center for Information and Communication Research at the Stockholm School of Economics.

NEW BUSINESS FORMATION IN NETWORKS

Any new business venture can be seen as involving elements of mediating in the existing or pre-existing structure of markets or in the business network (Kirzner 1973). New business formation in this view becomes an entrepreneurial activity of intermediation. Actors are via attempts to create “new combinations” (of products, services, “offerings”, technologies etc. as well as new exchanges and co-operations) trying to exploit different types of exchange opportunities. This paper takes as starting point the idea that entrepreneurial processes are associated with the creation of new “intermediaries”, exploiting new business opportunities by linking exchange parties in new ways. These exist as parties in new, revenue generating, value creating business enterprises. A second starting point is that process of developing new business and the processes of exploiting and developing technologies are inseparable.

This paper argues that the capacity to exploit exchange opportunities through mediating can take many forms. What we argue here is that the potential for creating “new combinations” are numerous, and some of the most central constraints lie in existing structures of market exchanges, interactions and relationships. The way in which technological components are combined and also demarcated and divided in business development processes will have important consequences for the opportunities for business actors to jointly create new business enterprises.

New business creation is in this paper concerned with the creation of value from existing technology. Hence, the new business creation processes encompass a technological content, basically what is involved in the process, and a business application content, i.e. what the technological content is to be used for and how it can be used (Ford et al 2003). The empirical cases used to illustrate new business creation in networks are collected from a well-known daily consumer activity, car parking and ticketing, and different alternative ways of creating new business in networks by employing established mobile technologies (like SMS) to create value for end-users and for the organizations in the different networks. The new businesses are created in a situation where the content already is quite standardized and well known. Our focus is on the efforts to embed new, known and tested, applications in a structure of relationships, and on the complexity involved in establishing a value creating “business” in a fairly simple end user situation.

RESEARCH QUESTIONS AND PURPOSE

How are new business ventures created in the processes of exploiting and developing established (mobile) technologies? The question signals our broad and general interest in this paper. We will see the processes of business and technology development as associated with the establishment of new intermediate roles in the networks. And secondly, the creation of new business will also be associated with the creation of new value for the end customer as well as for the involved companies. Hence, more specifically, we will draw attention to two specific questions connected to new business formation in networks:

How are the new business formation processes associated with the establishment of new intermediaries in the market?

How is creation of new business driven by and connected to the discovery and creation of value for customers (and other actors) in the network?

The empirical purpose of the paper is to take the starting point in an existing situation in the information and communication sector, describing how a set of alternative business network

situations can emerge when established wireless application technologies are exploited and new businesses are created. In our case, we take the starting point in how new business can be created based on SMS applications and services. This is partly done by making a point of the fact that any “simple”, everyday consumer/customer business interaction situation (here: buying parking tickets), will require quite complex processes of coordination between companies associated with the business situation.

The theoretical purpose is to explore aspects of new business formation in networks: the formation of new business enterprises as associated with the emergence of new intermediaries, and with the creation of value for the actors in the networks. The overall aim of the paper is to develop knowledge on new business formation processes in existing, stabilized networks, and how these are intertwined with the development of technology.

Next, we present some notes on the data collection and case process. These are followed by a section on theoretical influences, and an introduction to the empirical field, mobile services. Then our five focal cases are presented. With these as foundation we discuss our two focal business formation issues; the creation of new intermediaries, and the creation of value.

ON DATA AND METHOD

This paper is a result from an ongoing research project where we have investigated a number of existing mobile ticketing and payment services in order to describe customer relations and the different types of interaction between actors. The primary sources are mainly data collected from interviews with companies presented in five condensed mini cases below. Background material has been collected from mobile technology specific Media and Web sites, reports from technology standardisation bodies and from companies and industry associations. In this section we describe the collection of primary data, the different mini cases and outline the analysis approach and list the.

Data collection

A number of interviews were made December 2009 to April 2010 with representatives for the companies according to table I. The interviews were organized as discussion around questions about the mobile services:

- What kind of payment and ticketing services?
- What market segment?
- What kind of resources do you need, have or a need to develop?
- Who are you partners and business customers?

A number of open questions about the company and the future development were included;

- How did the company start?
- Why and how did you enter the business of SMS services?
- What opportunities can be identified (e.g. to add new features or enter new sectors)

The selection of companies was done in a “network oriented way” where companies and persons to contact were clarified during the period of the interviews. We started with one operator and one transportation company asking questions about their SMS services and their partners and suppliers. Then we contacted these partners and suppliers and asked the same set of questions leading to new contacts among partners and competitors. The following types of companies were included:

- Mobile operators (and subsidiaries)
- Non-telecom service providers that offer the parking or local transportation services
- Mobile service providers that provides ticketing and payment services

TABLE I. INTERVIEWED COMPANIES

Type of actor	Company	Position or Unit
<i>Non-telecom service provider</i>		
Public transportation	Storstockholms Lokaltrafik	Payment solution manager
Public transportation	Upplands Lokaltrafik	Marketing manager
Public transportation	Västtrafik (Gothenburg)	Project manager
Parking operator	Municipality of Västerås	Municipality traffic office
Vending machine operator	Selecta	Marketing manager
<i>Operator /operator subsidiary</i>		
Mobile Network Operator	Tele 2 Sweden	Mobile Product Marketing
Mobile Network Operator	TeliaSonera AB	Head of 3 rd party content services
Payment solution provider	Sergel	Content Billing and clearing
<i>Mobile Service Provider</i>		
Mobile parking payment provider	Tele-P	CEO
Mobile parking payment provider	EasyPark group	Marketing manager
Mobile parking payment provider	Mobill	CEO
SMS ticket provider, Aggregator	UNWIRE	Country Manager
Aggregator	Ericsson IPX	Global Solutions Manager

The cases: Mobile services and business for payment and ticketing

We have investigated a set of existing SMS based ticketing and payment services in order to describe interactions between actors and to identify key characteristics of creation of new business. All types of SMS ticketing services, e.g. for public transportation and parking, have in common that they require a number of cooperating actors and create a complex network also for quite simple services. We also have a case with vending machines using SMS payments, here no tickets are involved. Two types of mobile parking services are described using either SMS based payments or o mobile parking subscription. In the empirical section we will describe five mini cases with different actor configurations and different types of interaction and division of business roles and functionalities. The mini cases are:

1. Vending machines using SMS payments (focus on payments, no tickets involved)
2. Bus and subway tickets paid by SMS (payments and ticket issue and validation)
3. SMS tickets for parking where the service provider has the customer relation
4. SMS tickets for parking where an intermediary has the customer relation
5. Mobile parking subscription where an intermediary has the customer relation

Analysis approach

For the analysis of the mobile payment and ticketing cases we need to identify: 1) the interaction patterns between users, intermediaries and service providers, 2) the configuration of business roles within and among between actors, and 3) what actor(s) that seem to be dominant or driving the business development and ,if possible, the reason for this.

First the functionality and responsibilities of different actors are mapped in order to describe the configuration of business roles within the value network. In the used network model the three main entities are with *Actors, Business roles and Relations*. A business role controls a set of resources and performs certain activities in order to implement certain functionalities and exchange operations (Markendahl & Mäkitalo, 2007). This can be compared to the network model presented by Håkansson (1987) where *Actors* control and

have certain knowledge of *Resources*. The Actors perform *Activities* interconnecting the resources. In the model used in this paper we highlight the relations between actors and the distribution of business roles among actors, see a generic map in 0

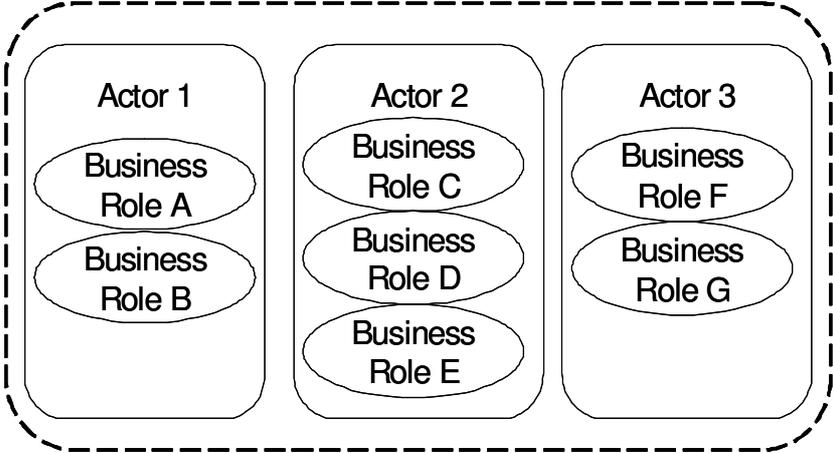


Figure 1 Generic illustration of actors and configuration of business roles

Not shown in the general figure 1 above is that the same business role can be performed by several actors. From this picture you cannot tell whether any of the actors or business roles is “new” or not. Examples of typical business roles including functionalities and responsibilities that will be used in our analysis are:

- to aggregate SMS traffic (from all operators)
- to define a “charging record”
- the charge the end-user
- to transfer payments to service providers
- to issue a ticket
- to validate a ticket

Next, the benefits for end-users and services providers are listed in order to describe different forms of added value. Finally, the relationships among the actors and roles within the value network are mapped and the main business relations are identified. Here we propose the use of an actor and relation map with actor layers as in 0The main business relation is between service providers (or merchants) and their customers, the end-users. The other actors, financial institutes, mobile operators and mobiles service providers, are located “in- between” in a “service supporting” layer. The role of these actors is to support the business of the non-telecom service providers, in our case parking operators and transportation companies.

In our case we typically look into one non-telecom service provider at the time, but we know that are many of them. In a similar way we look into one end-user, but we know that are many. The focus of the analysis of these one end-user and one service provider scenarios is on the service support layer. Different actors are involved, with different capabilities and responsibilities and different types of relations to other actors. The lines in 0represent possible relations and in the analysis we will see how the different links are “activated” in different ways for different cases.

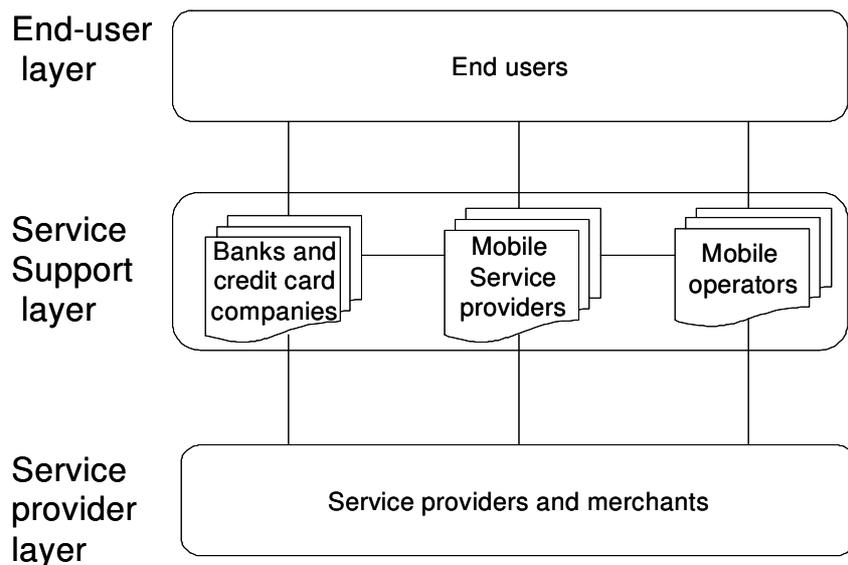


Figure 2: Layered approach for description of actors and relations

The cases are presented in a condensed version. Although the empirical data includes also historical data on the emergence of some of the central, sometimes new, companies in the five case, we choose here to present five snap-shot pictures rather than five process narratives. The five mini cases will mainly be used as first illustrations and starting for discussing our chosen perspectives and network ideas on new business formation.

THEORY: FORMATION OF NEW BUSINESS VENTURES

What do we include in the term “business” in general, and in the term “new business” in particular? “New” means here the new combinations of resources, technologies, value, and co-operation patterns. “Business” or “business activity” is then the entrepreneurial activity associated with the efforts to create these new combinations through processes of exploration and innovation. The “formation” is linked to interaction processes in both existing network structures, but in our case also in the efforts to create new patterns of co-operation, to explore new potential value creating combinations. Specific interest is directed towards the “business” component, and the efforts among parties to *generate revenues* from the creation of new customer (and supplier) value. Among the practitioners in the case, this is frequently presented as a problem of “creating new, joint ‘business models’ “coupled to new customer offerings.

Business formation and “intermediation”

The processes leading to new business formation can be viewed as entrepreneurial, encompassing dimensions of both *search* and *discovery* (Kirzner 1992). The joint use and combination of resources and technologies entails here a component of joint *exploitation* (March 1991) of an existing technology (here: traditional SMS technology). The processes also encompass elements of *exploration* and *innovation*. Mutual adaptation and joint learning (Håkansson 1993) are part of the cooperation efforts aiming for production of new value and establishing “new business”.

Hence, one way into the field of new business formation in networks is to start from the assumption that new business is created through the exploitation of new gains, and this is achieved in interactions and exchange processes, within existing relationships but also by

engaging in the successive creation of new business interactions and relationships. Building on Snehota (1990), a distinctive feature of business activity can be assessed if the business activity is viewed as ‘trading across different product markets’ (p. 26), and this in turn can be viewed as linked to entrepreneurial activities, consisting of “linking up different markets” (Kirzner 1973). Snehota states about business activity that:

“Business activity is entrepreneurial to the extent that the modes of exploiting opportunities existing in different markets are open. Different modes can be devised and used. The physical transformation of input commodities into different products, and combining different component products into one, are just examples of possible modes. Some may be called “production” while other may be labelled differently, What they all amount to is creating a “bundle of benefits” that may be bought and sold, thus becoming an object of exchange.” (p. 26-27)

Hence, business activity and new business formation is here associated with an entrepreneurial function, which is to link parties in exchange. In our case, this means to link both existing and new, emerging parties, into new exchange constellations. These new constellations form new, dynamic - stable and changing - business enterprises. Through the new actor combinations, these new business enterprises can provide new value creating bundles and extract new forms of revenues. In our case, these entrepreneurial actions are to some extent based on what Schumpeter (1934) calls “new technological knowledge”, (in our case: mobile technology). However, in our case, the “new” technology can be viewed as a more or less generic, standardized technology accessible to several parties, and thus our “entrepreneurial” focus is directed towards the processes of creating new business from the formation of new business enterprises, when extracting value from (and developing) technology. In these processes, new actor constellations in the linking of “different product markets” (Kirzner 1973) are created.

Thus, new business formation is here viewed as an entrepreneurial activity. Actors are via attempts to create “new combinations” (of products, services, “offerings”, technologies etc. as well as new exchanges and co-operations) trying to exploit different types of exchange opportunities. Part of this entrepreneurial process is associated with the creation of new “middlemen” or “intermediaries”, exploiting new business opportunities by linking exchange parties in new ways. These exist as parties in new, revenue generating, value creating business enterprises.

The capacity to exploit market exchange opportunities can take many forms. What we argue here is that the potential for creating “new combinations” are numerous, and some of the most central constraints lie in existing structures of market exchanges, interactions and relationships. Secondly, the way in which technological components are combined and also demarcated and divided in these processes will have important consequences for the opportunities for business actors to jointly create new business enterprises.

Business formation and creation of “value”

The notion of “value” has increasingly been discussed by researchers. (For reviews of the concept see Payne and Holt, 2001; Khalifa, 2004.) However, there seems to be little agreement in the literature on what constitutes “value” and “customer value” (Payne and Holt 2001). Value and value creation processes have been viewed from the perspective of the individual consumer, from the perspective of organizations’ internal value creation processes and value creation toward customers, and, increasingly, also from an interactive perspective

including both organizations and customers. And as stated by Lindgreen and Wynstra (2005), although value is an increasingly relevant concept, many firms cannot define value (or measure it). The concept has been approached by researchers and text book authors in business marketing (e.g. Anderson and Narus 1999) and in management journals (e.g. Anderson et al. 2006). Also IMP related research has devoted attention to studies of how value is created in networks, sometimes linking it to the conceptual ideas of “value nets”. For example, Johanson and Strömsten (2000) analyzed aspects of value creation in industrial networks in general. Specifically focusing on such value creating networks in mobile communications, Rajala et al. (2000) looked at the problem of how to combine and coordinate the value activities of multiple actors in the mobile telecommunication networks in order to create value creating end products or systems.

Value creation can be viewed as an interactive, process over time. From a consumer perspective, Holbrook (1994) suggests that experienced value is a trade-off between benefits and sacrifices in the customer’s interaction with the offering. Changes in the offering thus also influence the value process. The professional end-user might experience greater value from for example a mobile service that he/she has co-developed, not solely because they fit functional needs better, but also because this involvement in itself offers value. This engagement in the development of the offering can also change over time. The flexibility can be assumed to influence the involvement and interaction of the actors co-producing value. Reasons for seeking this involvement can for example be to nurture existing relationships, seeking expertise, reducing development risk, reducing development times, reducing costs and more.

Here, new business creation in our cases is concerned with the creation of value from existing technology. In some of the cases, through various re-configurations of the networks, actors manage to add value to customers.

EMPIRICAL FOCUS AND DELIMITATIONS

Empirically, we can see that there are a number of daily-life services that are enabled by the use of mobile phones. SMS based ticketing and payment is one such type of existing service that can be investigated in order to describe existing interactions between actors, and the formation of different forms of new business. By studying the existing services and markets some lessons can be learned how new business and value can be created. This includes the characteristics of the cooperation between mobile operators, providers various various mobile services and applications, providers of non-telecom services, and more. These relations and cooperation patterns are especially important to investigate when it comes to how, for example, mobile operators act and position themselves in the value constellation. Many of the operators are incumbents in their home market(s), i.e. they were formerly state own monopolies. It can be noted that also other mobile operators to a large extent “act as incumbents”, the main reason is that the operator market in most countries is a oligopoly. In principle, the interactions can involve many different types of firms: mobile operators, financial institutes, mobile service providers, trusted third parties, merchants and providers of non-telecom services (e.g. public transportation or parking), in the descriptions and analyses of the actors in the networks and their relations (Van Bossuyt and Van Hove, 2007). Our five focal cases will be delimited to a minor set of actors, described below in the introduction of the cases.

In addition to these traditional connectivity and communication related services the mobile phones are also used for messaging. These SMSes or MMSes, can be ordinary text messages for person to person communication but the number of business related messages, e.g. for

payments and ticketing are increasing. SMS services can be used for TV voting, collection of money, e.g. for Haiti early 2010. For many years the download and payment of ring tones was a major value added service. Now more “daily life” type of SMS services are introduced, e.g. payments for parking tickets, payments in vending machines, payment and issues of tickets for bus and subway etc. In one way, the mobile phone and the subscription can replace cash payments.

When it comes to mobile services they have traditionally been very operator-centric. A few big players are often dominating the market. The provisioning of services is dominated by mobile operators that control a large part of the supply network. The operators act within the connectivity business with a strong focus on “business to consumer” services. (Also in the business segment the end-users are seen as (a group of) consumers of connectivity services.)

When we consider purchasing and payments of goods, services and tickets using the mobile phone, a different business landscape emerges. The operators have two types of customers, both the end-users of “other” non-telecom services and the provider of these services. The main focus is not the “own” connectivity business. The main operator objective for these services is to support the core business of the merchants and non-telecom service providers, and their relation to the end-user.

CASE DESCRIPTIONS AND FIRST ROUND OF ANALYSIS²

In this section we will describe five cases with different types of interaction between actors and different way to distribute business roles and functionalities among actors.

Vending machines using SMS payments

The service providers in this case are companies like Selecta or Coca Cola that offer candy, snack or soft drinks in vending machines. Payment can be made with cash or, as illustrated in Figure 3, “Now you can pay by sending an SMS”: the customer sends an SMS indicating what to buy and a code for the specific vending machine. The user is charged through the mobile phone subscription, pre-paid or post paid. The total price for a purchase is composed of the following elements:

- “price of the goods” (i.e. the price using cash), typically 1-2 €
- a service fee, 0,2-0,5 €
- the cost of sending a SMS, 0,1 – 0,2 €



² The content and cases of this section has previously been presented and discussed at the IMP Journal Seminar in Lugano 8-10th of April 2010

Figure 3: Vending machine where you can use cash or SMS payments

The end user has a business relation with the service provider but in this case, technically it is the mobile payment provider that is active during the purchase process and hence has the main customer relation. However, the mobile payment provider “acts on behalf” of the service provider. In one observed case in Sweden, the vending machine company Selecta uses a mobile payment solution from the company Teleplan, Figure 4. In order to be able to use subscriptions with any operator the SMS traffic from all operators is aggregated by IPX (an Ericsson company).

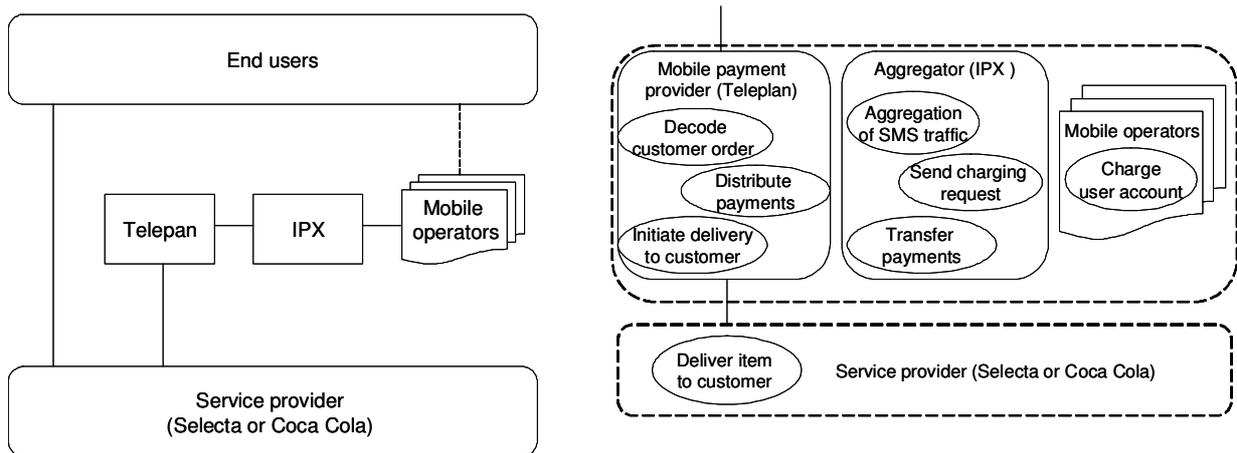


Figure 4: Relations and business roles in the case of vending machines using SMS payments

Bus and subway tickets paid by SMS

Tickets for local transportation by bus or subway can also be purchased and paid by using a mobile phone. In Stockholm the public transportation company SL introduced SMS tickets in 2007. Today, more than 20,000 travellers use this solution every day, mostly people who do not use bus or subways on a daily basis. The revenues from SMS tickets are about SEK 20 million yearly (2M€), which is a small amount compared to SL’s total turnover.

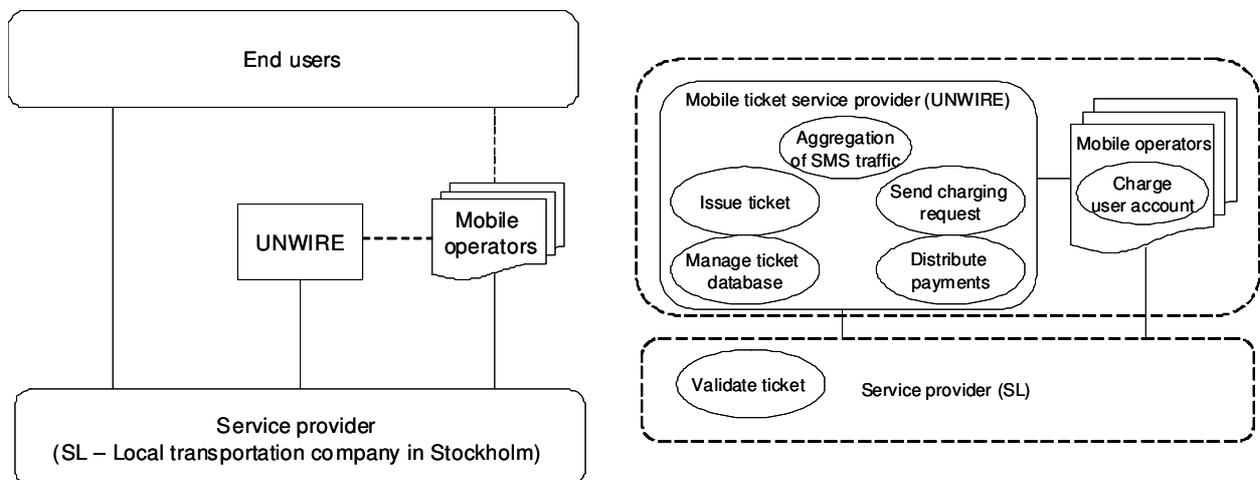


Figure 5: Relations and business roles for bus and subway tickets paid by SMS

Compared to the case with SMS payments in vending machines this case also involves the handling of tickets. In the SL case, the intermediary company “Unwire” aggregates the SMS traffic and produces and distributes the SMS tickets to the users. The Operator is involved in charging the user’s account. For validation of the tickets, Unwire keeps and maintains a database with tickets. This database is accessed by SL staff, when a ticket needs to be validated, e.g. when entering a gate or a bus, or when ticket validity is checked. When it comes to customer and business relations, the company Unwire has no relation with the end-users; they are in fact “invisible” to end-users. SL has the main customer relation. SL as a large actor with business that generates a lot of SMS traffic and charging events has revenue sharing agreements with all operators.

SMS tickets for parking where the service provider has the end user relation

Unwire also offers SMS tickets for parking payment services, e.g. in the town Västerås in Sweden. The functional setup is similar to the SL case but the business relations are to some extent different. The parking company in Västerås does not have any direct revenue sharing agreement with the operators and hence uses the Unwire agreements with operators. Similar to the SL case, Unwire aggregates the SMS traffic, produces and distributes the SMS tickets to the users and maintains a database for ticket validation. Related to the ticket database is also the customer service and helpdesk for customers. The parking company in Västerås is in charge of the customer management, and Unwire is not visible to the end user. Unwire describes the chosen pricing strategy:

“The new parking system is both less expensive and more flexible than before. The price will decrease by up to SEK 5 (0,5€) per ticket and it will also be easier for residents to extend their ticket – now, by up to an hour longer. The first text message will already have indicated how long the user wishes to park for – and if they wish to extend this time, they just have to choose a new number of hours.”

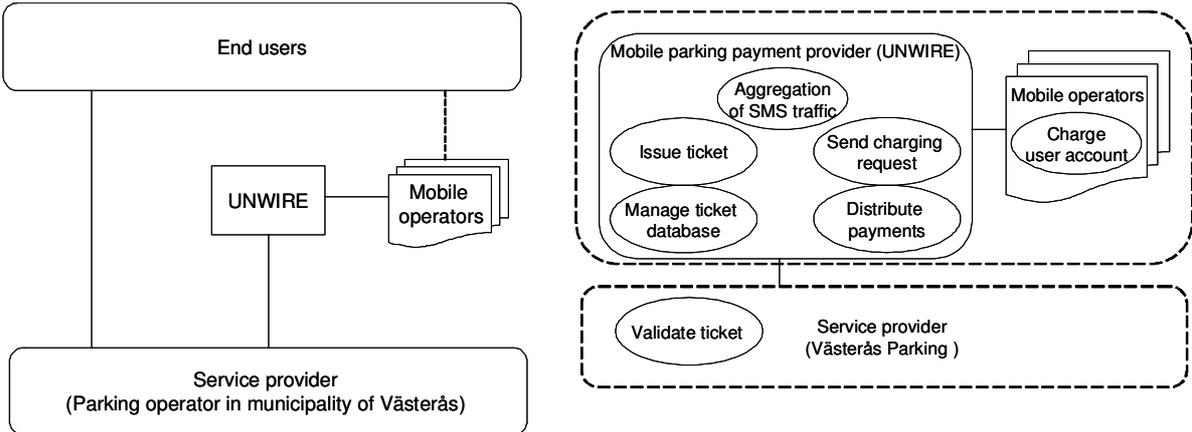


Figure 6: Relations and business roles for SMA parking – with integrated aggregator

SMS tickets for parking where an intermediary has the end user relation

There are however many cases where an intermediary, the mobile ticket service provider, has the main customer relation since their company name is the one that is presented to the end-user (figure 7). The functional set-up is similar to the Unwire case above but there may be some variations. The Mobile Ticket service provider Mobill aggregates the SMS-traffic itself while the company EasyPark uses as separate aggregator company, MBLOX. EasyPark has chosen another pricing strategy than the one used in Västerås in the previous case. For the case with SMS tickets in Uppsala, for example, there is an additional fee. Typically one hour will cost SEK 10 (1€) when paid by cash and SEK15 (1,5€) when using an SMS ticket,

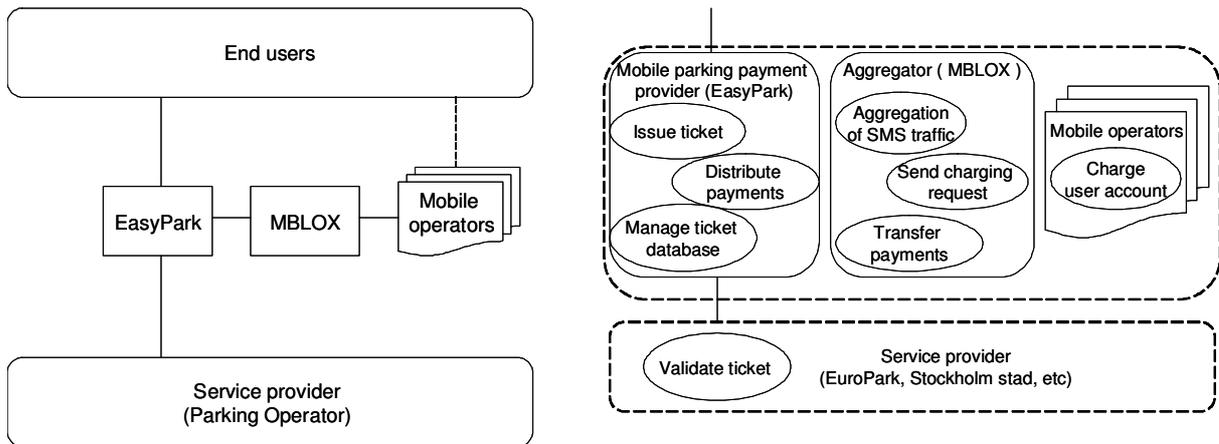


Figure 7: Relations and business roles for SMS parking tickets– with separate aggregator

Parking subscription where an intermediary has the customer relation

For parking services yet another business scenario can be identified where one type of intermediary has the main end user relation. Examples are the Parking Ticket Service Providers (MPPP) EasyPark and Tele-P that operate in the Nordic countries. These companies offer parking subscriptions and billing. EasyPark also offers SMS tickets, but the subscription based service is dominating. In order to use the parking service the user needs to register to the MPPP. The pre-registration of an account can include one or several cars, a mobile phone number, a credit card account or a billing address. The typical flow of activities is as follows:

- The user calls a MPPP number (visible at the machine) when the parking time starts
- MPPP registers the ongoing parking session and put it in data base
- The user calls the MPPP when the parking time ends
- The ticket exists as a data record in the PSTP database
- The parking company can check the validity of a ticket by using the MPPP database
- On a regular basis MPPP sends out a bill to the user with the aggregated parking fees
- After the user payment MPPP distributes payments to all parking companies

Parking sessions are activated and stopped by phone calls and by entering an “area code”, and no payment information is included. No business agreement is needed between the middleman and mobile operators. Here the end-user charging is done by using a credit card account or by sending a monthly bill to the end-user. Operators are not involved in (or even aware of) the service although mobile phones are used, and hence, users need a mobile phone

subscription. The case with payments using credit cards is shown in the figure. When billing is used, credit card companies do not need to be involved.



Figure 8: Parking machine where you in addition to payment by cash or by credit card also can use mobile services. In this case two companies offer payment using parking subscriptions. One of the companies also offers SMS-tickets.

Similar to the SMS-based ticketing services, the MPPP maintains a database that is used for validation and ticket control. The intermediary, the MPPP, has business agreements with a multitude of parking companies, garages and municipalities offering parking services as well as with the users. In the Nordic countries the MPPP EasyPark has agreements with 175 service providers and with 80000 parking subscribers. For the end-user this “one bill for all parking” is an added value, especially for companies that can get all parking fees for all employees on one bill. For the individual user other benefits are that you always can park without cash, and the risk for parking fines is eliminated.

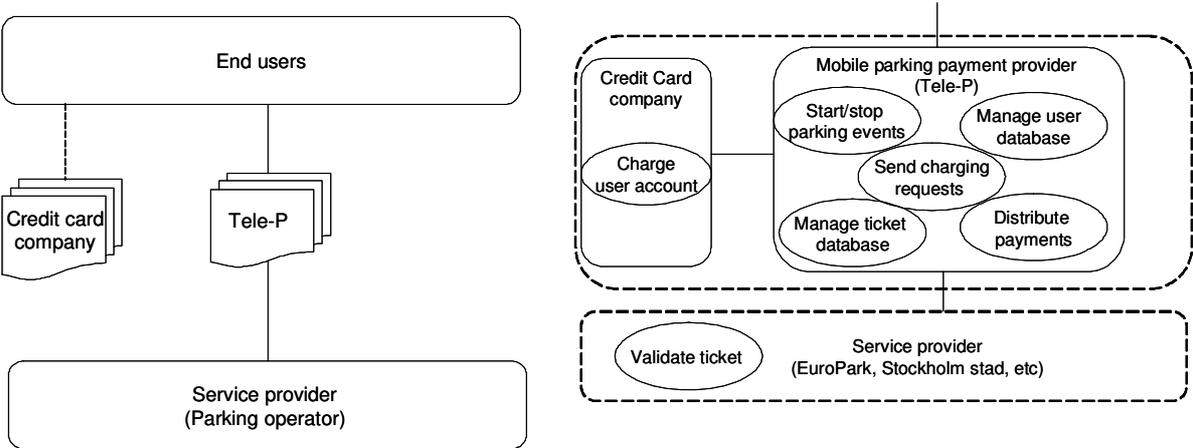


Figure 9: Relations and business roles for the case mobile parking subscriptions

ANALYSIS OF THE CASES: THE TWO ISSUES

Our analysis and concluding discussion follows our focal research issue: Focus is on opportunities to create value based on the exploitation of existing technology. The technology is used in a new way and is perceived by existing actors as an opportunity to exploit, by creating a new intermediary performing a new role.

One problem concerns how new business formation activities are associated with the establishing of a new intermediary performing a new role in the market. New business can be formed through the discovery of new business opportunities, by existing actors or by actors new to the market. The intermediary issue concerns also how new business can be formed through the linking, in new ways, of different “product markets”.

The creation of new business is connected to the discovery and creation of new (customer) value in the market. Analytical focus is the question whether the new business actually involves some improved resource utilization, here linked to some factual value to end users and other actors, or if it only involves some improvement of existing resource utilization.

Going back and connecting to our five short cases above, the actors that established new intermediary roles were IPX, Teleplan, MBLOX, Unwire, Mobill, Tele-P and EasyPark.

The first issue: A new intermediary as creator of new business

The ticketing cases above clearly illustrate the general idea and assumption above that what the new types of middlemen accomplish is basically to create entrepreneurial action by understanding the various preferences of different market actors (“markets”: mobile operators, parking houses, car owners) and in an efficient way exploiting the differences in preferences. The emerging number of different types of middleman could be seen as a combination of:

1. Fulfilling a need to create a neutral actor, e.g. in order to aggregate SMS traffic or act as clearing house
2. Identifying the business opportunities and providing services directly associated with the role as neutral actor, e.g. to issue and validate tickets, to collect and present TV-votes, or to handle payments
3. Exploiting the business relations with and knowledge about service providers in order to identify additional or enhanced services that can be offered “on top” of the ones in i) and ii), e.g. automatically generated SMS messages with remainders of end of parking time, or as in the Västerås case the possibility to extend the parking time.

According to Kirzner (1973), any new business venture can be seen as involving elements of mediating in the existing or pre-existing structure of markets or in the business network. New business formation in this view becomes an entrepreneurial activity of intermediation. Actors are via attempts to create “new combinations” (of products, services, “offerings”, technologies etc. as well as new exchanges and co-operations) trying to exploit different types of exchange opportunities. Our particular cases draw attention to the difficulties associated with entrepreneurship and new business formation when these processes of combining are associated with the linking of previously unconnected or only loosely coupled user activities or “product markets”. The entrepreneurial process is associated with the creation of new “intermediaries”, exploiting new business opportunities by linking exchange parties in new ways. These exist as parties in new, revenue generating, value creating business enterprises.

The capacity to exploit exchange opportunities through mediating can, as the cases show, take many forms. What we argue here is that the potential for creating “new combinations” are numerous, and some of the most central constraints lie in existing structures of market

exchanges, interactions and relationships. The way in which technological components are combined and also demarcated and divided have important consequences for the opportunities for business actors to jointly create new business enterprises.

In IMP research, Snehota and Gadde (2001) approached, from a network perspective, the “middleman” concept; in networks every actor will be in between some other actors, i.e. everybody is a middleman, but their roles can vary greatly. They talk about three roles in which middlemen follow different business logic and perform widely different functions: the middleman as trader, as distributor and as provider:

”For long time the need to pursue transfer efficiency in gap bridging has been in focus in analysis of distribution systems and the model of middleman as distributor became the dominant one. The shift in role towards the middleman as provider that we currently observe implies shifting the focus from *transfer efficiency* to *co-ordinating effectiveness*.....”(p.79)

In the case of SMS ticketing new types of functionality and activities were introduced, either for technical-practical or for business reasons. Since the ticket is no longer a physical ticket its validity needs to be checked, hence the control is made by connecting to a database. This implies a change in the *activity chain* since the validation is done “on demand” by the service provider. We can compare the parking services using ticket machine or SMS payments. For traditional parking using a ticket machine the involved actors are 1) the end-user and 2) the parking garage or the local company responsible for parking in the streets. The activities using a ticket machine are the following, see fig 10a:

- the user defines the wanted parking time (using the machine)
- the user pays in advance by cash (or using a credit card)
- the ticket is issued and delivered to the user
- the ticket control (validation) is done manually by staff from the parking company

The financial transaction are made directly using the ticket machine, in case of a credit card the credit card company charges the user and transfer money to the parking company. The “trust transactions” are related to the validity of the ticket and the involved actors are the user (putting the ticket in the car) and the parking company (checking the ticket)

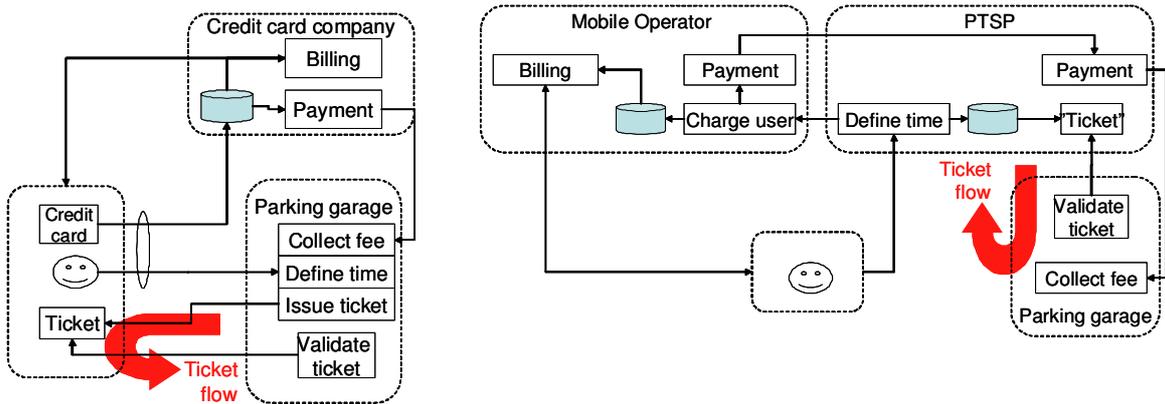


Figure 10: a. activities and flows for buying parking ticket using a machine (to the left) b. activities and flows for buying a SMS parking ticket (to the right)

Instead of using cash or credit card the user can buy a pre-paid parking ticket using the mobile phone and a SMS ticket, see fig. The parking fee is paid using the users pre-paid or post-paid mobile subscription. A Parking Ticket Service Provider (MPPP) will issue and deliver the

ticket, handle payments and be part of the validation, the MPPP in fig 10b. The flow of activities using a SMS ticket could be as follows:

- the user defines the parking time by sending a SMS that is received by the MPPP
- the MPPP asks the operator if the user account can be charged with the ticket fee
- The operator make a check and allow charging (or not)
- The MPPP issues the ticket and sends to the users
- The operator charges the user account
- The parking company control the validity of a ticket by checking the MPPP database
- The MPPP aggregates and transfer payments to the parking company

When we can compare the cases we can see that the trust relations and the actors involved in both the “payment flow” and the “ticket flow” are different. For SMS payments, the mobile operator is the partner in the payment flow. Using a ticket machine the “ticket flow” involves the user and the parking company only. With SMS payments the MPPP enters the “ticket flow” and takes on business roles. The ticket is issued and delivered to the user and the MPPP and the parking company collaborates in the validation activity, here the user is not involved.

Building on the cases, entrepreneurial action and the creation of new business is a matter of linking existing activity chains. New technological knowledge (Schumpeter 1934) can be the foundation and driver for such connecting actions. In the case, this involves connecting at least loosely, users’ “payment”, “ticketing”, “transportation”, “access” etc. activities in new ways. It is the efforts by new or existing intermediaries seeing the opportunities to connect markets in new ways that the formation of new business is manifested.

New business is created through the exploitation of new gains, and this is achieved in interactions and exchange processes, within existing relationships but also by engaging in the successive creation of new business interactions and relationships, within and across networks. Building on Snehota (1990), a distinctive feature of business activity can be assessed if the business activity is viewed as ‘trading across different product markets’ (p. 26), and this in turn can be viewed as linked to entrepreneurial activities, consisting of “linking up different markets” (Kirzner 1973). Snehota states about business activity that:

“Business activity is entrepreneurial to the extent that the modes of exploiting opportunities existing in different markets are open. Different modes can be devised and used. The physical transformation of input commodities into different products, and combining different component products into one, are just examples of possible modes. Some may be called “production” while other may be labelled differently, What they all amount to is creating a “bundle of benefits” that may be bought and sold, thus becoming an object of exchange.” (p. 26-27)

The new constellations form new, dynamic - stable and changing - business enterprises. Through the new actor combinations, these new business enterprises can provide new value creating bundles and extract new forms of revenues. From a network perspective, Jack and Mouzas (2007) argued that entrepreneurship could be viewed as “renegotiated exchange in networks”:

”By conceptualizing entrepreneurship as renegotiated exchange in networks, we argue that the discovery and the exploitation of profitable business opportunities are triggered only in conducive circumstances. This means that entrepreneurial action takes the form of *providing the rationales and resources for other actors to act*. This is an *indirect mechanism* that brings us to the essence of ‘renegotiated exchange in networks’ which is to

find and arrange unique or better ways to deliver and capture value in exchange relationships.”(p.3)

In their view, entrepreneurial processes and new business formation consist of opportunity identification, resource mobilization and the creation of an organization (i.e a network organization). In a somewhat similar vein, Gartner (1985) argued that entrepreneurship “is about organization creation” and as the renegotiation of exchange. It often depends on the existing structure of relationships in terms of (existing) *strong or weak ties* in the networks which to form the new business on. But the renegotiation process may also result in new patterns of strong and weak ties between actors in the network, when different “product markets” are connected. Gartner argues that it is a matter of activating weak ties through the strong ties in the network.

Summing up: New business formation is a process of mediation. There is a potential for creating “new combinations” through new forms of mediation in networks, and some of the main constraints lie in existing structures of market exchanges, interactions and relationships. New business formation emerges through the exploitation of new gains, and this is achieved in interactions and exchange processes, within existing relationships, but also by engaging in the successive creation of new business interactions and relationships, within and across networks. New business formation can be viewed as a renegotiation process in which different product markets, networks, are connected in new ways.

The second issue: Formation of new business and the creation of new customer value

In cases like EasyPark that offers parking subscriptions the identification of business opportunities also include to see beyond the SMS ticket as cash replacement. The aggregation of parking fees, use of monthly bills and distribution of parking fees results in increased efficiency both for the parking companies and for the end-users, both private person but especially for companies with many employees with parking expenses.

Another example of value creation is how the customers, in this case the parking operators, identify and exploit the opportunities associated with the mobile technology and SMS ticketing. In Uppsala the SMS tickets are more expensive than tickets paid by cash whereas in Västerås the price for SMS parking tickets is the same or lower than the cash price. The benefit for the “customer”, i.e. Västerås parking company, is that the number of ticket machines can be reduced. This leads to reduced cost for collecting the cash and for operation & maintenance. The same idea is implemented in full scale in the city of Westminster (UK). Here 60-70 % of all parking payments are made by SMS. This can be compared to Sweden, where EasyPark reports that SMS parking amounts to around 1%. In their case the subscription based service is more successful, still less ticket machines are needed.

Another observation is how the pricing of SMS tickets influences the user behaviour. In the case with vending machines using SMS payments the cost for the user is higher since a fee and SMS price is added on top of the “cash price” of the item of interest. The same is true for some SMS parking services, e.g. the price for 1 hour parking can be 1€ paying with cash and 1,50€ using SMS payments. This is in contrast to most cases with SMS tickets on local buses where the SMS price is lower than the cash price. With SMS prices substantially higher than the cash or credit card price it is likely that users will not adopt SMS payments on a daily basis. SMS payments will be used as a “special case” solution, e.g. when cash is not available.

Hence, the cases indicate that a substantial part of entrepreneurial actions is concerned with efforts to create new combinations of value offerings, new principles for generating income from the new business, and finding new innovative ways of distributing revenues between actors in new network constellations. In short, entrepreneurial action of “connecting

markets” is a social activity where the formation of “new business” to a large extent is about innovating new ways of creating income and sharing revenues. Identifying new sources of gain, understanding how new types of values can be created often has a new transformation technology a trigger, but some of the major entrepreneurial challenges seem to lie in the innovation of new modes of sharing revenues (locally) based on some shared knowledge about what creates (new) value, to end users as well as to suppliers.

New business creation in our cases is concerned with the creation of value from existing technology. Hence, the new business creation processes encompass a technological content, basically what is involved in the process, and a business application content, i.e. what the technological content is to be used for and how it can be used (Ford et al 2003). The new businesses are created in situations where the technical content already is quite standardized and well known. The efforts to embed new, known and tested, applications in an established structure of relationships come in focus, and the complexity involved in establishing a value creating “business” in these situations.

From the viewpoint of new values created for the end customer it can be assumed that, like in the parking payment cases, different *value configuration logics* can emerge (Sweet 2001). The different parking payment cases seem to develop different value configuration logics, where the value to different actors differed in the different cases. The involvement in the value creating processes by the different suppliers/commercial actors in the parking cases differed, like the involvement of the end customers in the value production processes. In some cases, value seemed to be *extracted* by involving customers to perform some of the activities (eg. with the mobile phone). ”Customer co-production” exercises this logic, enabling customers to do more themselves by shifting tasks to the customer. Furthermore, a new function, attribute or aspect of a product or service can *add* value and customers can be willing to pay for it and the value-add can be engineered into the product/service delivered by the supplier. For example, in one case organizational customers could be expected to be willing to pay for compiled, monthly statistics and information on the use of the parking services by their employees. Value can also be re-configured and created anew, and value can be transferred between customers, and may involve also other commercial agents.

Summing up: New business formation is a process of value creation where the formation of “new business” to a large extent is about innovating new ways of creating income and sharing revenues between the actors in the network. New business formation processes are in this sense always unique, with different value configuration logics emerging over time.

DISCUSSION: AN INTERACTION VIEW ON NEW BUSINESS FORMATION

Instead of the individual entrepreneur and the internal drivers of new business within the new business venture, the focus is directed towards the industrial network, and how new connections and interactions are created within and between networks. New industrial networks, carrying both new technological systems and new business ventures emerge. In other words, with this perspective, defining “New Business Formation”, becomes challenging in at least three respects: Firstly, “history matters” and what is considered “new” is always relative as it is always built on some already existing activity and resource structure, and actor constellation. Secondly, although a technological innovation or final customer “offering” might have resulted from a technological change process, defining when this has resulted in a (new) “business” can sometimes be equally difficult. Thirdly, an interaction and industrial network focus draws attention to emergence, i.e. to the self-organizing nature of new business venture “formation”, with business creation processes characterized by multiple loci and

driving forces. New business formation consists of a multitude of multitudes, successively interconnecting (and disconnecting) networks (cf Lundgren 1995).

New business ventures emerge in the cross-points, i.e. in network processes where previously loosely coupled or uncoupled networks are inter-connected, and this in turn draws attention to changing patterns of cooperation and competition. One observation from our underlying cases is that the interaction (sometimes lack of interaction) between “businesses”, and industrial networks, is also an important *constraint* for new business ventures to form and stabilize. This can be illustrated with a quote from one of the R&D managers, representing a major incumbent mobile operator in our case:

“We do not have so much problems coming up with the technologies, the product ideas, or to develop new systems and offerings for the user market together with other development companies. The problem is that these innovation processes often stop when we come to the stage where the new business, and business model is to be developed. The sad thing is that today the process seems to fail earlier in the process, due to the problem of creating new sustainable cooperation with the other involved companies.”(Interview with R&D manager at a Swedish mobile operator , March 2008)

The practical, managerial problem to develop new business activities sometime seems to lie not so much in the technical invention, but rather in the process of developing, in various interactive constellations, new business activities involving a new technological innovation. Creating “new” business based on entrepreneurial activities includes the exploitation of new exchange opportunities in the market, and the creation of new customer value. New business formation is often reflected in substantial practical problems for companies to initiate, establish and stabilize new patterns of interactions and cooperation.

An example is provided by (Ondrus et al. 2009) who have analysed three cases in Switzerland where mobile payments failed to be successfully introduced. The cases showed that failure resulted when the mobile payment providers did not involve sufficient number of merchants to generate a network effect. In another case, they failed to convince and mobilize other actors, and no consensus was reach. The low number of points where mobile payments were accepted resulted in low value for the end-users. One of the service providers (PostFinance) managed to involve the major merchants that created an important network but still failed. One reason for this was that a non-standard solution was used with different technology providers and integrators. Another reason for failure was that the new service had low value compared to existing solutions, i.e. a low additional value for the consumers.

CONCLUSIONS

To conclude, we propose two major, general starting points for further IMP research on new business formation: First, new business formation can be viewed as a *process of mediation*. The potential for creating “new combinations” through new forms of mediation in networks are numerous, and some of the most central constraints lie in existing structures of market exchanges, interactions and relationships. Second, new business formation can be viewed as a *process of value creation* where the formation of new business to a large extent is about innovating new ways of creating income and sharing revenues between the actors in the network. New business formation processes are in this sense always unique, with different value configuration logics emerging over time.

New business formation processes emerge through the exploitation of new gains, and this is achieved in interactions and exchange processes, within existing relationships, but also by engaging in the successive creation of new business interactions and relationships, within and

across networks. New business formation can be viewed as a re-negotiation process in which different product markets, networks, are connected in new ways.

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