

ANALYSIS OF A SOFTWARE COMPANY'S BUSINESS NETWORK: PRODUCT VENDOR, SYSTEM INTEGRATOR OR SERVICE PROVIDER?

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Abstract

Software companies live in the middle of complex business networks. It seems often to be quite unclear what is the role or position of different players in such networks - what is the core business of a particular company, what is the product's or service's value for the end-customers? This paper addresses business networks in the context of mobile services that are emerging despite of the bursting of the Internet bubble. The study concentrates on a particular case company, which produces end-user applications and business management tools for value-added services, offering them for mobile and web environments. The study involves three inter-related areas: 1. Analysis of the case company's network position and its development objectives, 2. Creation of a network-based and value-driven business strategy, and 3. Preparation of a development plan to implement that strategy. Regarding the last area, the goal of the study was to find solutions especially for new mobile product and service development, as well as for marketing and sales in an international context.

There are certain factors that are common for most software businesses. It is therefore possible to define the core aspects of wireless software business and analyse its strengths and weaknesses for a particular company. What makes a particular case interesting is showing the business networks involved and understanding the company's position in them. This can be done using the concepts of value creation systems (VCS), activities creating value for end-customers that consume the results of the activities. After a VCS has been defined, it is possible to go further and design a model to investigate it. Such models are called value nets by Parolini (1999).

The analysis of the case discussed in the paper is presented in the form of a value net – a certain process map, where the value-creating activities and business processes of the case company are made visible. On the basis of the process map it was possible to evaluate the critical processes that deliver value for customers. In this particular case the mobile service is delivered to customers via customer interface partners. Supporting activities, such as software production, technical support, channel management and content production are essential but not relevant for the end-customers. On the basis of the analysis, an alternative channel and business model could be considered. As one alternative, partnering with an other company which operations in marketing, product development and customer service would

complement the case company's offering, would be possible. A more radical change would be involvement in so called multidimensional value nets (Möller et al. 2001) that could offer the case company opportunities to develop entirely new types of businesses.

Keywords

Business networks, value creation, mobile and wireless services

INTRODUCTION

This study sets out to explore mobile software products and services that are network-based and value-driven and belong to specific business networks. The focus is on a certain software producing company. A software company may play different roles in the networks with different partners. In the networked world of organisations, it is worth exploring also the processes involved in the networks, not only the network actors.

Research problem and approach

The study was conducted as part of the Vertigo project financed by Tekes and carried out by the University of Oulu, the Helsinki School of Economics and Business Administration and several software companies (see www.vertigo oulu.fi). The project aims at investigating, developing and transferring in use new business networks, service concepts and product strategies for software companies. This study aims to investigate the following aspects:

1. Analysis of one case company's network position and its development objectives,
2. Creation of a network-based and value-driven business strategy for the company, and
3. Preparation of a development plan to implement that strategy.

The goal of the study was to find and apply solutions for new product and service development, marketing and sales, finance, and implementation of wireless and mobile services in an international context. The simple model shown in Figure 1 describes a software company with certain products and business strategies, distribution channels and markets. The company's competitors may use the same or other distribution channels as the focal software company. The company is struggling for the same markets as the competitors, and has to cross a barrier before it is able to reach the markets.

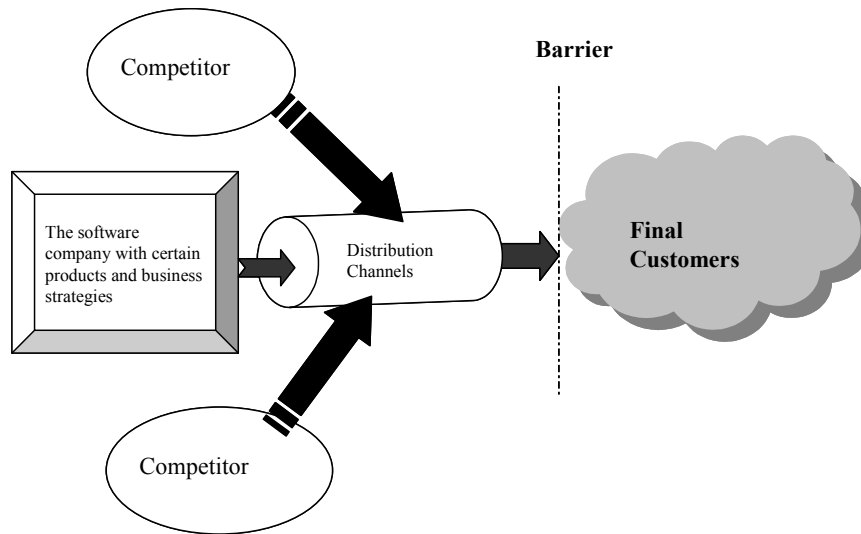


Figure 1. A simple software business environment model.

The model shown in Figure 1 is, however, an overly simplified view into the software company's business environment. It doesn't include any direct interaction with customers, partners or competitors, in particular. The company simply produces software, which is delivered through some distribution channels to final customers. Competitors are lurking to get some information about the markets. However, even this simple model imposes the importance of final customers - the need of the customer to gain value from certain software products or services, and the ability to deliver the value through some channel.

Structure of the study

This study aims at producing a model for analysing a software company's position in business networks, in relation to a few key development areas. It also describes the position of the case company in its business networks and gives suggestions for the company's future. The focus is on how to deliver value to final customers, and the study approaches it in three phases: namely analysis, planning and development.

- 1) It is essential first to analyse software companies' positions in the business networks. A framework for analysing such networks is needed, to be used when mapping out the company's internal factors and relationships to its external business environment. The main focus of the framework is on relationships with other network parties.
- 2) Based on the analysis it is possible to develop product and network strategies for strategic business areas. The intention is to find expedients to networking and map out what are the likely profits of strategic networks. This also includes suggestions for accomplishing and keeping up the company's network position with a certain product strategy.
- 3) Based on the results of the analysis, a strategic development plan is presented for the case company.
- 4) Evaluation of the development plan was not possible, and is not addressed in this paper.

This study was carried out as a combination of a theoretical analysis and a case study. At first, it was necessary to analyse literature dealing with software business from different perspectives. To understand the position of a company in the markets, it was important to become familiar with theories concerning software business and business networks. To be aware of new trends and technologies in wireless markets, software products and services, supplementary empirical material was also gathered, mainly from web sites and professional reports.

Elements of a customer-oriented software business analysis framework

Value net – a model to investigate value creating systems

According to Parolini (1999) a value-creating system or VCS can be defined as a set of activities creating value for customers for consumption activities (Parolini 1999, p. 62). After a value-creating system has been defined as a set of activities creating value for customers' consumer activities, it is possible to go further in value matters and design a model to understand and investigate VCSs.

The *final customer's perspective* and the *activities in value-creating systems* are the main characteristics in value net thinking (Parolini 1999, p. 69). On the basis of a value net analysis it is possible to define a strategic “map” with nodes (value creation or consumption activities) and relationships (ties between the activities; also flows of material, information etc.) between them (Parolini 1999, p. 81), as is illustrated in Figure 2. The dotted line arrows represent supporting relationships and the solid ones show the relevant processes for value consuming.

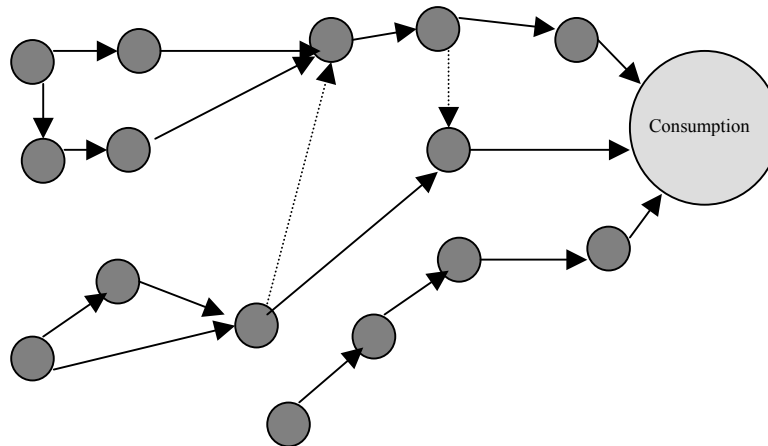


Figure 2. The value net with nodes and relationships (Parolini 1999, p. 81).

When analysing VCSs, the starting point is to look at the activities that make it up – not the different actors participating in the network. This helps to avoid the risk to over emphasise organisational boundaries and gives more space to network innovations.

The traditional way to concentrate on organisations as actors leads to analysing the situation in the value chain *as consisting of individual companies*. However, according to Parolini (1999, p. 88) it is more meaningful to concentrate on **the value created for the final**

customers and the economic structure of activities behind the organisational façade (Parolini 1999, p. 88).

The symbols shown in Figure 3 and the style to present the value net activities suit to any VCS.

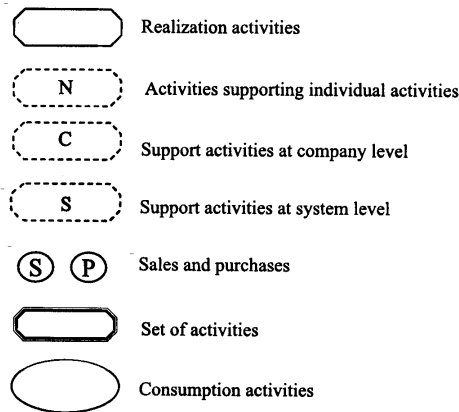


Figure 3. The representation of different types of value net activities (Parolini 1999, p. 105).

Parolini (1999) uses the electronic publishing industry as an example to illustrate confluence of skills and technologies rising from diverse industrial sectors as traditional publishing, software production, telecommunications, information networks and entertainment (Parolini 1999, p. 161). To compare, Möller et al. (2001) have studied different types of business nets.

In particular, they discuss about three different types of strategic networks:

1. vertical value nets (supplier, distributor and customer networks, vertical total systems);
2. horizontal value nets (in forms of competition, marketing channels, resource development and forums for networking alliances), and
3. multi-dimensional value nets (hollow organisations, multi-dimensional business networks, new value-system networks).

Vertical value nets are targeted for functional effectiveness of the total system. Usually the target is to develop the value creating functions. The most demanding effort is to link the developing, manufacturing, logistics and business management systems as a strategic network, which is guided by the hub-company.

Horizontal networks are usually built to seek more powerful marketing or to develop new technologies. Competitor alliances between flight companies are a commonly used example. Horizontal networking is used also to resource and access alliances with competitors or R&D institutions, for example to develop new technologies and standards.

Multi-dimensional strategic networks involve emerging value networks. Strategic multi-dimensional networks can even be used to form new business models, which demand investments from different players and extend their know-how to each other (Möller et al. 2001, p. 10 – 11). This leads again to the value net perspective.

Software business models – more building blocks for the analysis framework

In addition to bare network thinking, some other conceptual elements are needed to build a working analysis framework. In particular, elements for modelling software business logic are needed. Such concepts can be constructed e.g. on the basis of (Rajala et al. 2001), where software businesses are modelled as follows:

1. Product development model,
2. Revenue logic,
3. Marketing and sales model, and
4. Servicing and implementation.

1. The product development model

The product development model describes what is the core software product of the company and how the development of the core product is organised. The product development model describes how the value creation process is structured from the focal software company's viewpoint (Rajala et al. 2001, p. 40).

2. The revenue logic

The revenue logic describes how the software company finances its operations, in other words, how and from whom the revenue of the company is generated. Rajala et al. (2001) suggest that the revenue model describes how a software company captures the sales value of the product or service that it is offering directly or indirectly to customers through some channel. There exist different revenue model options. One of the most common models is licensing, where the customer pays for the right to use the software.

3. The marketing and sales model

The marketing and sales model describes how marketing and distribution have been organised by the company and who are the sellers and marketers of the company's software service or product. The marketing model consists of overall marketing efforts involved in the company's business strategy. (Rajala et al. 2001, p. 46.) McHugh (1999) has classified the channel partners for software business. His classification includes:

- Agents
- Dealers
- Distributors
- Republishers
- Resellers
- Retail Outlets (McHugh 1999, p. 93 – 96)

This list could be completed with integrators (Rajala et al. 2001, p. 48) and original equipment manufacturers (OEM).

Direct sales are mean interaction between the software company and its customers only.

4. Servicing and implementation model

The servicing and implementation model explains how the core software product is made available for the final customers, as a working solution that creates value for the customers (Rajala et al. 2001, p. 8).

According to Rajala et al. (2001) the servicing model represents all the installation and deployment activities required to achieve a working solution based on the software product. Software implementation almost always requires servicing, whether it is a question of self-service or on-site delivery (Rajala et al. 2001, p. 48).

Customer-oriented software business analysis framework

The development of a value-driven and network-based analysis framework was carried out as a combination of the value net concepts discussed in (Parolini 1999) and the elements of a software business model proposed in (Rajala et al., 2001). When these were put together, a combined model for analysing networked software businesses could be presented.

As it is necessary to study the value offered for final customers, the emphasis is on them. They have expectations for the value of the exploitation of a software product or service that should be fulfilled. A barrier must be passed before the product or service is recognised as being valuable by the final customers.

A certain value net (including the customers) is involved in producing, marketing, delivering, servicing etc. the value creating offering, Figure 4 a, b.

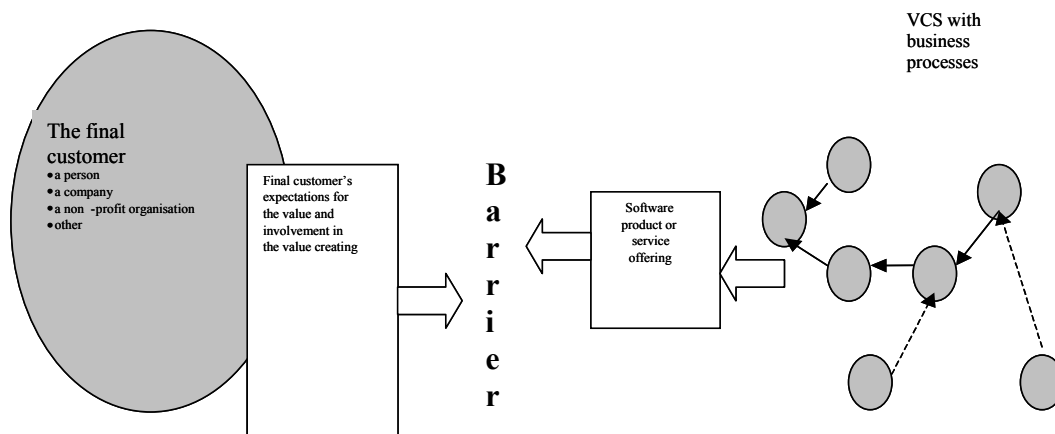


Figure 4 a. Elements for a customer-oriented business analysis framework.

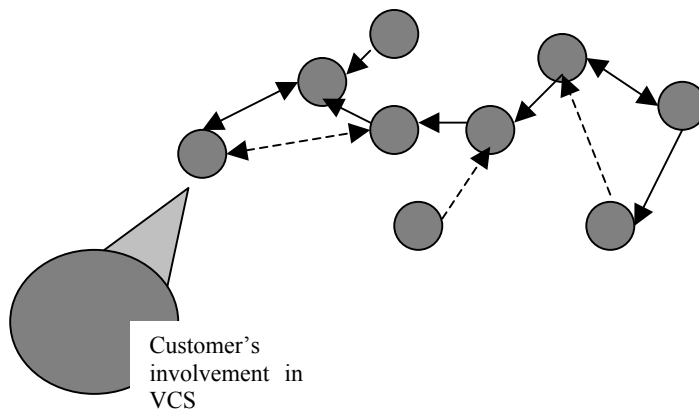


Figure 4 b. A customer-oriented software business analysis framework.

The figure intends to show the elements required for a customer-oriented software business model. The VCS carries out software product or service offering activities to the final customers that have some value expectations. However, the customers' involvement in the value creating processes can be passive, as in Figure 4a. A barrier exists between the VCSs and the customers. In Figure 4 b the customer has become a member of the VCS.

This means that the customer is involved in certain network processes. The value-driven and networked business model should allow final customers to interact with the software and service development processes, too – something that Parolini (1999) considers, but does not make explicit. Speaking of software business processes, they include product development, revenue, marketing and sales, service and implementation, as was discussed above. If a barrier exists between the software product or service offering and the final customers, the customers are not involved in the VCS processes. However, to better fulfil the customers' expectations, it should be possible to invite the customers to act as part of the VCSs.

ANALYSIS OF THE CASE COMPANY'S NETWORK POSITION

For the case study discussed in this paper three key persons in the case company were interviewed. They are responsible of marketing and sales and product development. Internet was used as an information source concerning the case company, too. Some general data concerning mobile business was gathered from public reports and Internet. The empirical data gives an overview of the present situation and describes the structure of the network of the organisations and activities in which the case company is involved.

Value-added services for mobile markets

The case company develops software to serve, produce and manage value-added messaging services to mobile phones for international operators and other businesses. Value-added services can be understood as “nice to have” features for mobile devices. The services are visualised to final customers in the form of e.g. multimedia messages and personal calendars.

The company's product family consists of applications developed to function with a certain product platform. The services are targeted to final customers to customise their mobile

phones. The case company is a part of a business group, which has been divided in software products, IT and new media integration services and software production services (Table 1).

Table 1. Overview of the case company.

Business area	Activities
Products	End user applications and business management tools
Owner relationship	Owned by Finnish tele operators
Customers	Mobile operators, service providers and portal owners
Revenue	License sales, product development financed by mother company
Marketing, sales and distribution	Mainly by retailers, also some direct activities and by original equipment manufacturers (OEM)
Partnerships	Partnership-network with international telecommunication companies and equipment- and network manufacturers
Internationalisation	Operation on global markets
Competitors	One strong domestic competitor, globally the most challenging competitors in the USA

Analysis of the case

It is essential to study the case company's present and future situation and its position in relation to business networks including customers, competitors, distribution channels and other partners. This includes an analysis of the company's product strategy and offering, too.

Product development

Rajala et al. (2001) have only the core product as an element in their analysis framework, not any additional products or services. However, it would be necessary also to analyse the whole product delivered to the customers, which includes additional products and services, too. The product that is distributed to final customers includes all the additional features, different partners may create a combination of their own products. If one part of the whole product is missing or failed – the final customer can't fulfil its expectations, which may affect negatively every company involved in the network. Moore (1995, p. 179) suggests providing the whole product to please the customers so they don't rally around and the competition is still open.

Mobile messaging has high potential, which would suit to the case company's application development line e.g. instant or multimedia messaging. To date the first multimedia messaging services have been launched – now there's only some lack of devices. Autio et al. (2001) have compiled a list of the different consumer applications (Figure 5), which should be viable based on the key success factors of mobile services. They point out four important factors, which will provide significant added value for the end-customers: location-based, personalised, immediate, and available. The mobile messaging services are appraised to have high potential when immediacy and mobility or personalisation is important market success factors. Mobile potential is estimated to be significant.

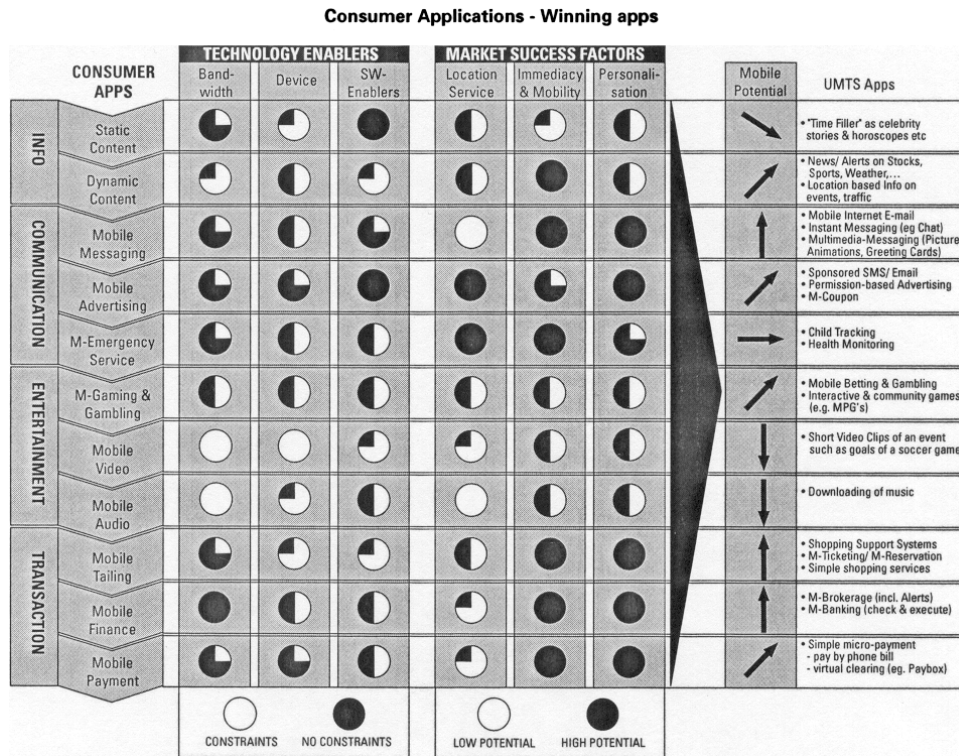


Figure 5. Assessment of consumer services (Autio et al. 2001, p. 83).

Advanced mobile messaging solutions (3G) should be the winning applications according to Autio et al. (2001). The case company has placed a great emphasis on mobile communication services. As mentioned earlier, its product family is based on a certain product platform programmed in Java. In this particular case product development is carried out with Java specialists. It seems that concentration on the Java technology is a benefit, because new mobile devices support Java on the application side. E.g. Nokia 9210 Communicator was among the first Java technology supported mobile devices when it was launched on 2001.

Starting from the year 2002 there are expectations for Java applications among other types of mobile devices, too (cf. <http://www.nokia.fi/puhelimet/teknologiat/java.html>). More devices with Java support should be coming available. The use of Java also makes it possible to involve more customers in product development. There are plenty of young Java programmers who are able and willing to give their best shot for product development.

The product platform is the company's own solution based on Java. It also has features of parameterised products (Rajala et al. 2001, p. 42), because there is a need for some tailoring in every customer case.

Because of short product life cycles the speed of product development is important. Product development done is bound to customers' situation, and there should be constant co-operation and follow-up between the case company and its customers.

Revenue logic

The company is a part of an international corporation. It is listed in the Helsinki Stock Exchange. The latest interim report shows a negative result in software product business. The total turnover of the corporation is introduced in Table 3.

Table 2. Net sales distribution

Sales	2002				2001	Year
(in million euros)	Q1	Q4	Q3	Q2	Q1	2001
Software projects	3,20	2,98	2,55	3,79	3,46	12,76
Software products	1,14	0,47	0,81	0,17	0,61	2,05
Service operator	7,30	7,48	6,94	7,32	7,25	28,99
Network operator	7,04	10,26	7,38	6,66	6,99	31,29
Cable television	0,91	0,75	0,70	0,68	0,45	2,57
Parent company	0,59	0,51	0,51	0,48	0,59	2,09
Intra-group sales	-6,24	-5,47	-5,43	-5,70	-5,76	-22,37
Consolidated net sales	13,94	16,98	13,44	13,39	13,58	57,40

The total result is presented in Table 3 for different business areas.

Table 3. Revenue distribution.

Revenue distribution	2002				2001	Year
(in million euros)	Q1	Q4	Q3	Q2	Q1	2001
Software projects	-0,63	0,05	-0,34	0,41	0,40	0,52
Software products	-1,25	-0,63	-0,21	-0,71	-0,60	-2,14
Service operator	0,36	0,80	0,60	0,34	0,19	1,93
Network operator	1,80	2,52	1,89	1,33	5,93	11,67
Cable television	0,19	0,09	0,12	0,11	-0,03	0,29
Mother company	-0,80	-0,77	-0,50	-0,92	-0,24	-2,43
Depreciation of goodwill	-0,46	0,29	-0,25	-0,49	-0,14	-0,59
Group, total	-0,79	2,34	1,32	0,07	5,51	9,25

According to the interim report, the consolidated equity ratio is 66,6 % and the financial position has remained good. As the tables show, the most profitable areas of business of the case company are the network operator and the service operator with cable television that has kept up on the positive side. Software projects and products are not managing so well. The overall situation on the markets has been difficult for project and product business. Telecom customers' investments have been at a considerably lower level than what was estimated.

Product development and internationalisation efforts have demanded noticeable investments in product business. The company's intention has been to develop a "standardised", easy-to-copy product, which is cheap to reproduce and which could be distributed easily through CD-ROM or data networks to customers. This hasn't been the case, but there is nearly always a

need for some product tailoring, this consumes resources from the product development – which should be the core business area.

The mother company has supported product development. The money flows have been quite noticeable. This has guaranteed the product development efforts especially in an early stage, when there was not much revenue from product sales. The case company's intention to concentrate on communication services could open new revenue possibilities e.g. in multimedia messaging services.

The turnover in the case company's group level is estimated to grow 15 % yearly. The recent years have been non-profitable, because of the difficult situation on the global markets.

Mobile communication has a number of revenue opportunities, which actualise at different times with unsteady characteristics. SMS messaging will have less importance and new service areas like multimedia messaging, mobile e-mail, instant messaging, emergency, healthcare and advertising take place in order to gain new revenue flows for software companies and the interest groups like investors (Figure 6).

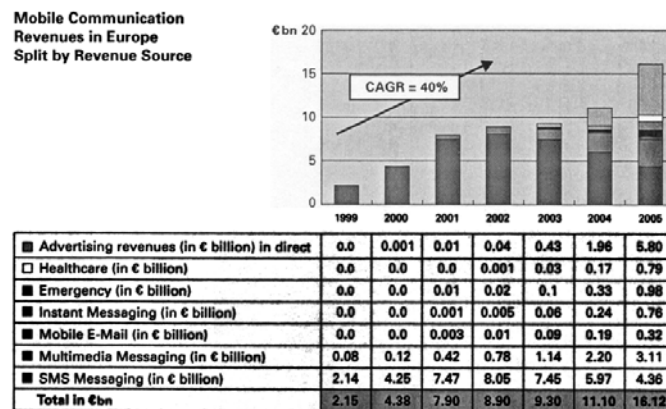


Figure 6. Mobile communication revenues in Europe split by revenue source (Autio et al. 2001, p. 87).

Marketing and sales

The interviews that were carried out pointed out that there were some mistakes in efforts to secure the first customers. The competitor managed better in direct sales. This also affected to later efforts, because competitor launched a whole product package that customers accepted.

The co-operation with operators and original equipment manufacturers has been quite successful. They have common product development activities and give valuable references for the company when planning next steps to conquer the international markets.

Servicing and implementation

Some channels partners are focused on servicing co-operation - one group related to this case is system integrators (Rajala et al. 2001, p. 49).

According to the interviews the case company handled the platform implementation to customer's systems. These were carried out as unique customer projects.

Customer perspective

As mentioned above, the main types of customers of the case company are operators and other businesses. There is not any direct interaction with final customers, although they are in a crucial position with value expectations. There is thus a barrier between the product/value offering and product/value expectation. Value-added wireless and mobile services should fulfil ones needs for certain purposes. There is already a huge amount of SMS users and SMS based services have conquered the customers' mobile communication needs.

SMS is economically on the top at the moment according to Autio et al. (2001). The growth of SMS will decrease after 2002, but it will keep its position in customers' everyday life if no service can replace it. By now consumers have accepted the SMS, because it is easy and cheap to use and short messages can be sent in any time or place.

The upcoming 3G services are unstable to date. The first devices with multimedia enabling technology have been launched and some early enthusiastic customers will try them. The price of the devices is quite high to date and there have been difficulties with 3G networks, so there is the barrier before the value-added 3 G mobile services can enter to markets. After service launching there is a question if customers are willing to buy and use them. What is the value received and how expensive is the value?

The use of Internet has stabilised its position. For example e-mail is a common way to send short messages and younger customers are used to use different chat services. E-mail will remain the most used messaging system on the Internet (Autio et al. 2001, p. 88). The alternative ways to deliver new services are wired or wireless Internet. Internet instant messaging services are popular as well. There were approximately 40 million AOL Messenger users and 84 million ICQ (comes from the words "I seek you", a web-based community) users globally (Autio et al. 2001, p. 88). Customers don't pay any great attention to device (pc, laptop, mobile phone, 3G device etc.) when the service matters.

Messaging services (SMS, instant messaging) are widely used by teenagers. They should also be available easily for them. Certain web portals are popular among youngsters and almost everyone has a mobile phone. To launch the new services the possibility for customers to get involved in the design processes, to try some services or devices free or design some service independently could offer a new, more customer-oriented perspective for software companies.

Examples of peer-to-peer computing (e.g. Linux, Napster) have pointed out the customer's willingness to get involved in the service designing and delivery processes. These opportunities could also be economically profitable for a software company and they could give a birth for new communities of customers and help the marketing efforts.

NETWORK-BASED AND VALUE-DRIVEN BUSINESS STRATEGY

Value net for the case company

The idea of value nets was introduced in Section 1.3.1. The value net for the case company can be structured from the information gathered in the interviews and from public sources. Because the starting point should be the final customers, first the set of individual processes or activities relevant for mobile services use are illustrated as shown in Figure 7.

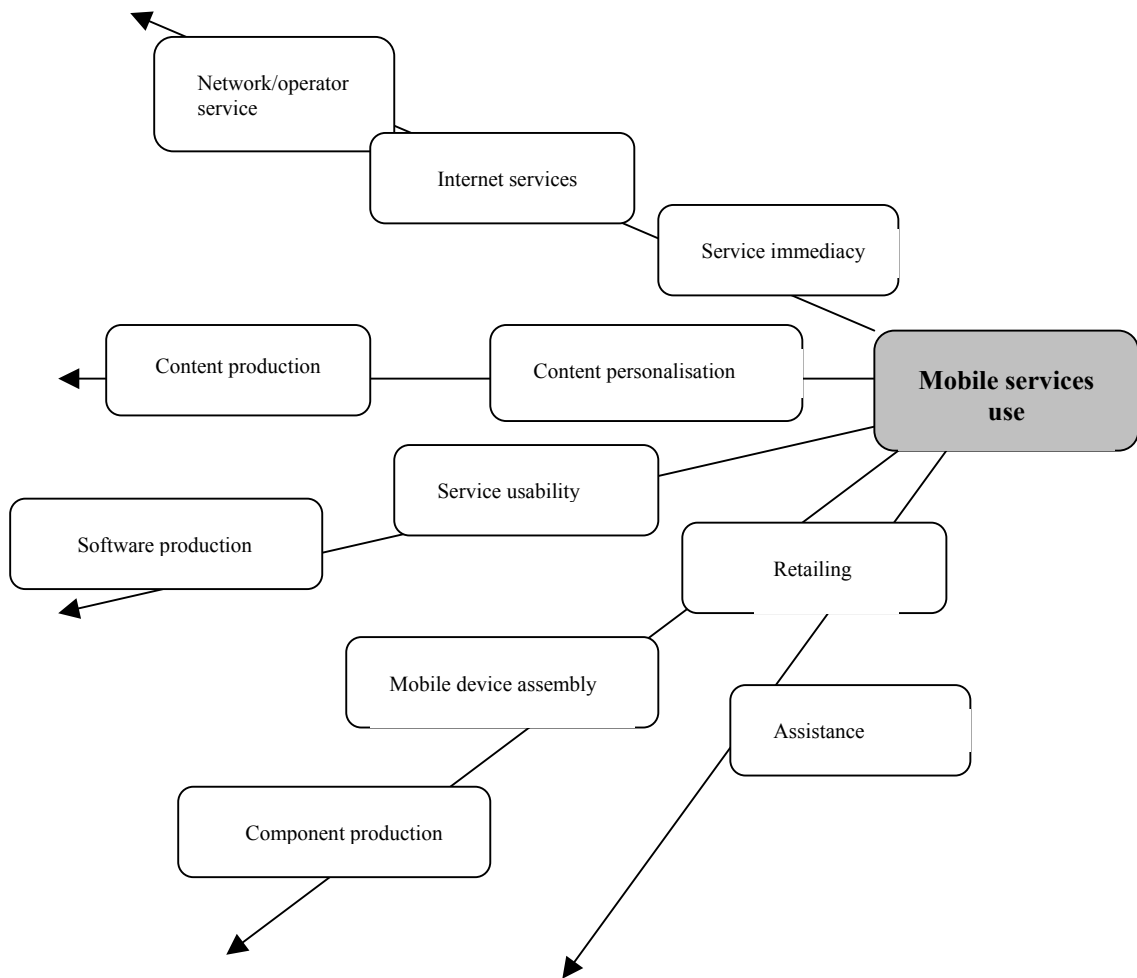


Figure 7. Mobile services use from the final customers alias end-users' perspective.

Individual mobile service users are interested to easily buy a suitable mobile device from a retailer. The mobile device usually includes software with sets of specified features. A company creates basic contents for services, but individual user has an opportunity to personalise these contents. Network operators are in a critical position for the access and immediacy of the service.

When these critical processes and activities have been analysed, it is obvious that individual companies' business processes are highly relevant for the final customers. By analysing these critical processes and activities it is possible – however – to build a value net for the case company and suggest innovative and more customer –oriented ways to get revenue flows.

The case company co-operates with many other companies, too. All of them have different roles and positions in the network. From the final customer's point of view there isn't any individual company representative – only processes (and a brand which combines these processes under the whole product which is accessible e.g. from the internet). To analyse the overall VCS, the make/buy/connect choices, the most/least profitable activities, system bottlenecks, the possibility of reconfiguring the role of final customers and the possibility for innovations, the value net for case company is illustrated in Figure 8.

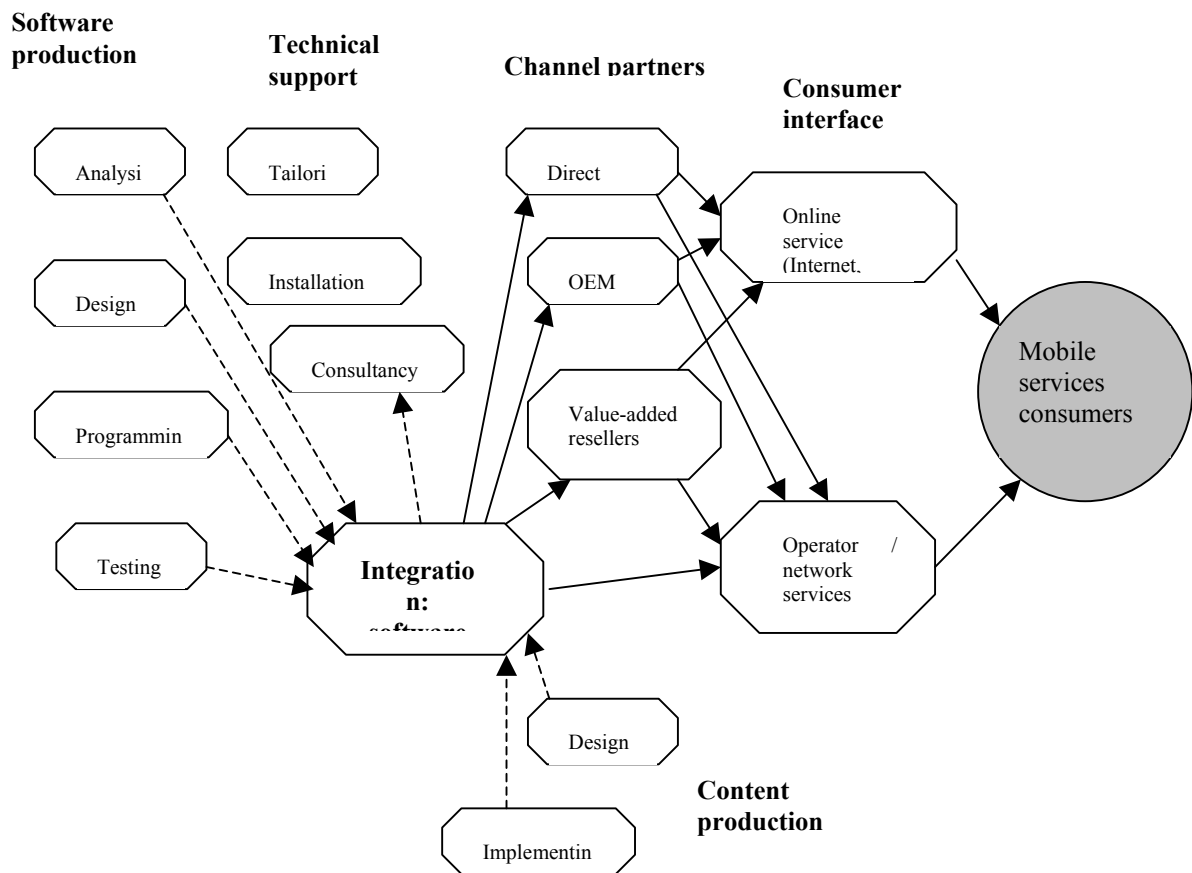


Figure 8. The key nodes and flows of the value net for the case company illustrated.

On the basis of the case company's value net it is possible to define the main processes and activities important for the customer. Software production and technical support are the supporting activities and more visible part of the processes are the channel and consumer interface partners. Software vendor is quite distant from the end-user. The value net analysis forms a basis for business development suggestions to be discussed in Chapter 4.

Development of the case company's business network

A company's position in a business network may vary greatly depending on its offering. The case company acts as a software vendor by offering software products for a customer segment. It also acts as a system integrator by installing and testing the offered software product. And finally, it acts as a service provider by offering the operation service.

Customer centred business through networks

Profitable business is possible with more user-centred business strategies and models. Obvious is that the aspect of users/customers is arising acutely, when competition is hardening on software business.

Customers are willing and able to personalise the goods they are buying. They also are willing to involve in the product development processes. Feedback is given and suggestions to improvements have to be taken seriously. Some of the customers are also willing to take personal responsibility for some value-creating activities (Parolini 1999, p. 218).

One company alone has less competence to satisfy the user needs than several networked companies with their special core business areas. Companies together have better possibilities to offer a whole product with additional features for customer.

Customers may collect the pieces of puzzle to personalise the product or service offered by certain networked business group.

Suggestion is to move the thinking towards more customer centred business model. The customer's position have been emphasised by Parolini (1999). Autio et al. (2001) underlines the fact, that the importance of understanding customer's situation and utilities cannot be overemphasised. This leads to consider new software business models as peer-to-peer and open source, which allow more customer interaction in business processes.

By the ideologies of open source and peer-to-peer programming (P2P), also software production may have new opportunities (and threats). Some of the most famous applications have been programmed and distributed by a community of users – not any company. Open source is software in which source code is distributed for a given product usually free of any charge (Autio et al. 2001, p. 61 – 62).

P2P programming has been born by the communities of programming Internet users. The story of Napster is quite famous to date. "Napster proved to technologists and entrepreneurs alike that you can get people to collaborate and share information freely, and you can have them build an entire network capable of growing quickly and easily through the users' piecemeal additions of resources", states Fattah (2002, p. 11). For the company perspective the most relevant risks are connected with the revenue logic.

PLAN TO IMPLEMENT THE STRATEGY

The case company's business supports the idea of new software business model innovation and also the more innovative ways to build the networks. The case company is quite distant

from its customers at the moment, as discussed above. More interaction between the case company and its customers also in meaning of business could be reached by developing a **virtual market place and community** (cf. e.g. Amazon) for customers and software developers with the various partners. A virtual community in this context means a special portal or mobile (3 G) service, where the network of companies offers software and service purchasing as self-service. This includes the possibility for customer to impact on the products or service and is part of a value creation process.

A possibility for direct feedback is offered. The community supports interaction between the network and its customers and could lead to birth of smaller user and developer communities, which are important sources of information for the networked companies. Personalisation of the products or services is highly relevant. Part of the software could be offered freely in the Internet for example based on the loss leader or service enabler business models. The community may bring together a palette of software products and related services under a mutual brand.

One company in the network may act as a network-builder by integrating different products and services by using existing distribution channels – very often the Internet. The leap towards multi-dimensional network strategy has been taken (Möller et al. 2001, p. 12). For example, many Finnish software product and content companies are small in international perspective and the move towards e-commerce could offer them more revenue possibilities by combining products under a mutual brand. This also brings them closer to the customer. Quite considerable are also the efforts in marketing and sales and customer service by a single company when compared to possibilities for several networked companies.

An idea for one alternative towards a more customer-oriented business network for the case company is presented in Figure 9. It aspires to show how the traditional company – distribution – customer way of thinking could be turned vice versa. The way to achieve the desired value could be produced by a certain VCS via mobile or internet services.

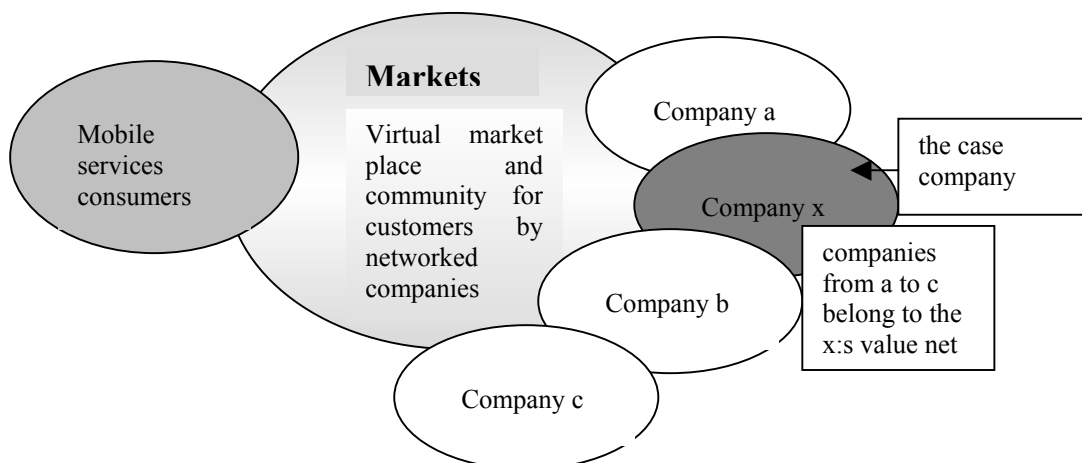


Figure 9. A virtual market place and community of customers by networked companies.

Figure 9 is a simple way to illustrate the common interface for customers and networked companies producing mobile products and services. Company x is operating as a network builder. The model implies to show that the different mobile services and products producers

are able to interact with the customer and to unite the offering via the common virtual market place and community under the same brand. Figure 9 remains quite abstract in this study, but for the further studies the investigation of proper company/consumer network would open up this model on a practical level, with actual business activities and processes.

For the further studies the meaning of mobile services consumerism is rather interesting. Theories emphasised the meaning of customer and consumption, but still it lies as a grey, abstract actor. It could be very interesting to open up the concept and investigate the customer's needs and willingness for mobile services consumption.

The third and fourth generation mobile services are emerging and the suitable business models and network structures are formed. It is interesting to study this field more proper and understand the variety of software business models and formation of certain business networks – including the customer.

CONCLUSIONS

This study presented an overview of one case company. The value-based theories gave a solid basis for the case study. Unfortunately, there were some difficulties to gather case data.

However, it was possible to analyse the different roles the case company had in business networks (product vendor, system integrator or service provider). It was revealed that in relation to different customers the company had the role of a product vendor, a system integrator and a service provider. The business focus seemed to be unclear, but the company desired to concentrate on the product vendor's role. This could be achieved by networking in the other business areas.

Parolini (1999) leaves the customer perspective incomplete in the value net model. The customer's involvement in value creating activities is not presented. This gives a starting point for studies targeted to customers and different alternatives for customers to create value.

For further studies the studied theories – especially Parolini's (1999) value net theory- and the case analysis have formed a good basis to continue the research of different types of nets and to explore deeper the different areas in software business models.

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