Who is our Customer? Analysis of Software Company's Value Creation Strategies

Warsta, Juhani; Juntunen, Sari and Seppänen, Veikko
University of Oulu

Note: The authors have contributed equally to the paper.

Contact information: Juhani Warsta, email juhani.warsta@oulu.fi, Sari Juntunen, email sari.juntunen@oulu.fi, Veikko Seppänen, email veikko.seppanen@oulu.fi, Department of Information Processing Science, P.O. Box 3000, FIN-90014 University of Oulu, Finland

1. Introduction

A rapidly growing market niche for software applications is the planning and management of product related data during the product's development process and beyond – during the manufacturing, usage and service of the developed product. Since the starting point of product development and production is planning, some software companies have become interested in special software applications that facilitate product planning, conceptualization and engineering. Unfortunately, these processes are quite fragmented and abstract, and in the case of high-tech products a large number of technologies are involved. Moreover, any software application that would support these processes must also be tied to some product development methods, modeling languages and tools used during the rest of the life cycle of the product.

This broad and dispersed software application market is the context of this paper. The market is approached from the perspective of a small software company that has specialized in this market. In particular, we are interested in what strategic value and how the software company can produce for its customers – and who those customers are, in the first place. The software application offered by the case company integrates the customers' product development processes into an advanced marketing, product modeling, development and testing environment. It can thus be considered as a software-based product development suite offered as a full-fledged Commercial-Off-the-Shelf (COTS) software product.

This study focuses on the case company's value creation strategies, dependent on its view to customer needs and networking towards third-party software component producers and add-on service providers. Based on the analysis of the company's value net it is possible to define a strategic map showing where value creation and consumption and interaction between different value creating activities take place. According to the value net thinking it is useful to analyze businesses using value net functions and discuss innovative ways to reformulate these functions (Amit and Zott 2001; Kothandaraman and Wilson 2001).

The data gathered from the case company enables us to make explicit and analyze the company's value net and study its effectiveness. Specific attention was given to the following research objects: the target market and their business cultures from the

viewpoint of the developed software application, the strategic customers and their views to business networks, and management of the entire life cycle of a product to be created using the software application offered by the company.

The markets of the case company were first divided into few segments, including mobile phone producers, subcontractors of the mobile phone producers and other suppliers, other electronic device developers and manufacturers, and the training sector. The most interesting segment of these was the one consisting of mobile phone producers: mobile phones require significant amounts of product development efforts, and effective software tools supporting the development process can, in principle, speed up the process remarkably and improve the quality of the products. However, both the development process and the technologies used in the mobile phones have become more complicated during the last years. This is also reflected on the development process and the supporting tools. Even though product developers are highly skilled professionals, they need training and support for using their development tools during the whole life cycle of the product illustrated in Figure 1 – not only in the actual product related R&D phase.

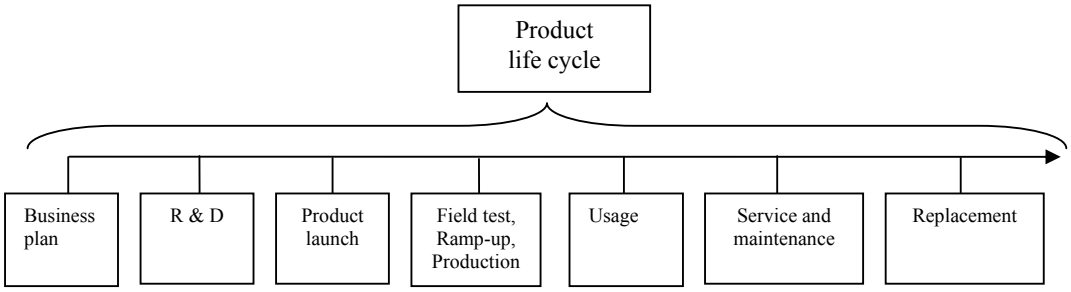

Figure 1: The life cycle of a high-tech product.

The development tool innovated by the case company encompasses in principle all the life cycle phases shown in the figure. Most of the other tools available on the market focus on one or two phases of the life cycle.

The evolution of new product development tools is often based on the diffusion of new product development methods and modeling languages used for specific product technologies – such as software, hardware or electromechanical technologies. At first there are usually several competing methods and support tools available, but after

some time some methods and global support tool providers start dominating the markets. Many of these winning companies have built up solutions to exchange data between given phases of the product development process, as well as provide interfaces between different tool functionalities. This does not, however, usually cover all the phases of the product development life cycle, and even in the case of adjacent phases tool integration may progress only slowly.

The case company's focal idea was to introduce a set of related tools that would control the whole product development life cycle from the initial concept design to the service and maintenance phase, based on digital product design data created during the early R&D phase. This data would be used e.g. in the product launch phase by the marketers and during the service phase by the maintenance personnel. The development tool set – a software application - focuses on mass market high-tech products, and especially on mobile phones. The consumer electronics industry in more general terms is, however, seen as the most important market for the tool set.

In these markets there already exist several competing product development tools. From the viewpoint of the case company, one of the fiercest competitors is a foreign company, whose offering however differs clearly from the one of the case company. The tool provided by an international competitor concentrates only on certain product development phases. The competitor's strategic market entry was also different, and apparently quite efficient. The competitor started to invest in the downstream product design phase by providing ready-made and reusable mobile phone user interface models and the corresponding software implementations. Afterwards the company spread out towards the upstream product specification phase, offering a solution that helped to automate the subsequent design and implementation phases.

2. Elements of the case company's business

To improve and reshape a business requires capabilities both to understand the business as a whole and to describe and analyze the elements of the whole from different perspectives. Hamel (2000) has proposed a framework for doing this, based on four different business elements: the core strategy, strategic resources, the customer interface, and the value network. This paper concentrates on the two last elements, the customer interface and the value network.

Further, Parolini (1999) has described the use and analysis of value nets. A value net can be defined by actions that produce value for the customer to consume. Based on the analysis of the value net it is possible to define the so called strategic map with nodes (where value production and consumption takes place) and interaction relationships (relationships between different activities, as well as material and data flows). Parolini concentrates on analyzing value creating activities and resources. The customer's viewpoint is emphasized as an active member of the value net. Normann and Ramirez (1993) have also emphasized that the firms are moving toward the creation of a system of value creation in which suppliers, manufacturers, intermediaries, and even customers collaborate for the ultimate goal of value creation.

2.1 Marketing and sales

The case company is co-operating with several research organizations and with one big pilot customer that has a strategic role. The tool set offered by the company is actually an offspring from a joint research project between a research institution and several companies. From the viewpoint of its own product R&D the case company has a need for networking, especially to offer auxiliary components and plug-in applications according the customer needs. With these supplementary components the company's tool set can be better matched with complex organizational, process-related and technological customer needs. In other words, the components help to span the company's offering over the customers' product development life cycle.

For the present, marketing and selling of the developed tool set is carried out by the case company's own personnel. The highly specialized market requires competent marketing and selling persons. One of the essential problems in marketing and sales is the need to clearly argument for the benefits of the tool set for the whole life cycle of a developed product. Thus the intended competitive advantage, i.e. the coverage of the whole life cycle of the product, has thus brought up some marketing and sales problems, notably as in the market there are no similar and equally comprehensive solutions available. During sales negotiations difficulties have emerged to describe naturally the extensive benefits of the tool, because usually the prospective customer representatives come from some specific phase of the whole life cycle of the product, see also D'Adderio (2001) about the implementation difficulties.

In international marketing and sales operations the case company has trusted on local distributors, due to different business cultures and product development practices. However, in the future the sales function is planned to be re-organized, based on direct sales to key customers. A main reason for this is that the complexity of the offered solution leads to long sales negotiations and increases the costs of resellers. Thus, the complexity of the product and of the selling cycle requires rigorous process when choosing a new reseller.

At the moment the case company's marketing and sales efforts are in an expanding phase as the tool set has been under development already for several years and starts hopefully to bring profits for the owners of the company. This far the company has received financing for R&D and product marketing from its owners. The company's own staff provides at the moment all the support, installation and service tasks needed by the customers, to make some extra service-related income for the company. For example all the present auxiliary components and plug-in applications of the tool set are programmed and offered to the customers in house.

2.2 Productization

The tool set offered by the case company integrates the customer's product development process with marketing, product modeling, development, and testing tasks. The tool set is especially suitable for small consumer electronics manufacturers. Its open software platform supports the different phases of the development process and facilitates to integrate the results received from the R&D phase to the subsequent phases of the product's life cycle. The tool set does not only support the design of the user interface of product – as the competitor's solution, but it also helps to develop the product's all functional features through simulation and testing. Especially, in the mobile phone markets the competition is increasingly shifting from the hardware towards the software, i.e. the brand owners differentiate their products with software based interfaces. This transition coincides with the case company's business strategy as their software tool focuses on the software development.

The tool is a full-fledged Commercial-Off-the-Shelf (COTS) product. However, it can be partly modified according to the customer's specific needs and as such it has some characteristics of a Modified-Off-the-Shelf (MOTS) application. The platform and its

features can be extended by programming additional components and plug-in applications according to the needs of the customer. The aim of the case company is, in the future, to develop plug-in applications with the aid of third-party firms. For this purpose the company is under way to develop an Internet site where plug-ins functionalities can be demonstrated and electronic business transactions carried out.

The tool set is at the moment in a transition from a prototype to a fully productized solution with all the necessary associated services. From the viewpoint of productization, the company is at the moment in a critical phase for the envisioned growth of its business.

2.3 Value net

According to the value net thinking it is useful to make explicit the value net functions and find innovative ways to enhance the net. The data that was gathered from the case company makes it possible to draw the value net shown in Figure 2.

The value net indicates that the value creating activities of the case company are still relatively sparse and the number of actors making that net to function is in its early stages. The programming, technical support and sales activities are in its entirety under the control of the case company. At the moment only one distributor that has passed the strict criteria is helping the company in the process of making the tool set ready for international markets. As the company is still in its early stages of development and has only a few customers, the essential questions, in addition to the effectiveness of the value creating activities, are which customer segment(s) the company should target and who would be the focal customers. Answers to these questions depend also on which kind of customer interface the company should establish and how it would be managed.

In the business analysis framework suggested by Hamel (2000) the customer interface involves how the company finds its customers, which channels it uses to serve the customers, what kind of customer support and services it delivers, what information it collects about the customers and how it uses the information in favor of the customers, how the relationships between the company and the customers work, and lastly, what different pricing mechanisms the company has. The value net part of the

framework covers the network that complements and expands the company's own resources. The elements of the network include also subcontractors, partners and joint ventures. Furthermore, Hamel (2000) describes how the planning and management of the value net can be an important source of innovative business concepts.

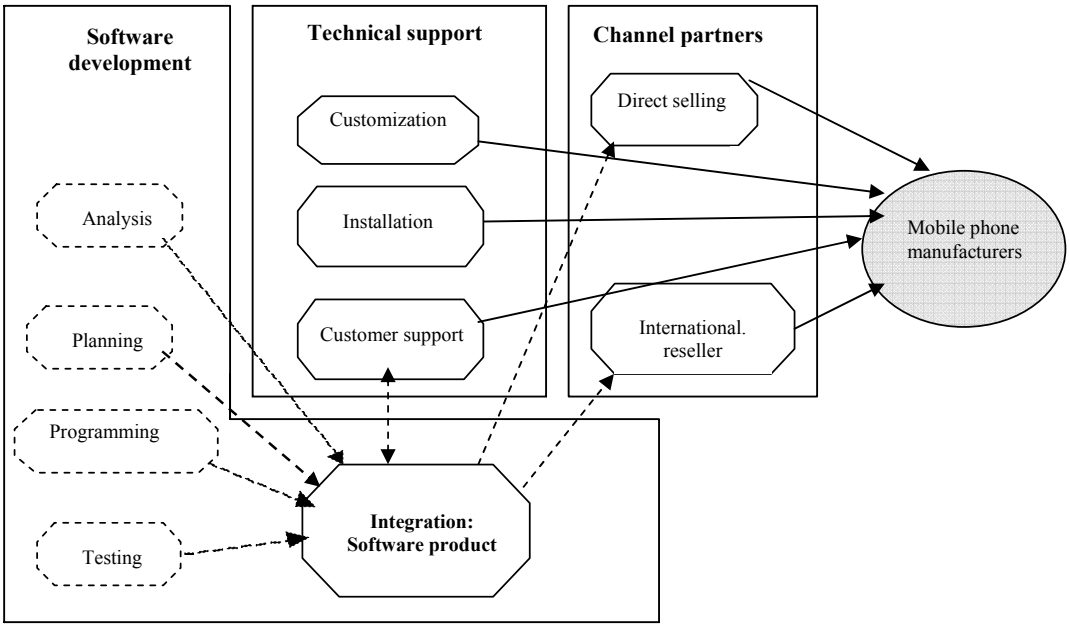

Figure 2: The case company's value net.

As the case company's value network formation is still in its early stage, it must especially be analyzed what kinds of partners are needed to complement the company's own resources and know-how.

3. Opening of the Product Development Life Cycle

The case company was interested to consider the seven biggest mobile phone manufacturers and their ways of action, from the perspective of the tool set offered by the company. These potential customers were first analyzed using the following essential aspects: key figures and the main business sectors, business strategy, R&D, business networks, and different cooperation modes, especially collaboration with contract product manufacturers.

Most of the mobile phone manufacturers are large and diversified companies that include also other business sectors besides mobile phones. Some companies do not

have their focus in mobile phones, but e.g. in consumer electronics in more general terms. The business cultures of the companies vary notably, depending on their geographical locations. However, it was possible to find clear similarities in the business strategies of certain mobile phone manufacturers. Based on this, the following market based product development and management strategies could be identified, Figure 3:

1. Closed market strategy,
2. Semi-open or network market strategy, and
3. Open market strategy.

In the *closed market strategy* the focal company is responsible for all the necessary business operations and all product life-cycle phases, i.e. the company manages all the processes and activities of the life cycle of the product, cf. Figure 1. When the company moves into the *semi-open market strategy,* it outsources some parts of its business to subcontractors that manage these outsourced parts. Using the OEM-concept, the mobile phone manufacturer has to decide which activities in product design, manufacturing and maintenance it will outsource, which technology suppliers it will rely and how intensively it will manage the supply chain. With regard to the latter, one of the most important decisions is if the product-specific supply chain would be based on competition or partnership. This again affects significantly on the strategies of the potential suppliers, among other things; how they adapt to the customer's processes, product development tools and organization.

Open market strategies, as shown in Figure 3, were literally not found in the case data. However, some companies were on a track to this direction. In this case, the mobile phone manufacturer outsources extensively its activities into the hands of subcontractors and their subcontractors, involving e.g. R&D, manufacturing or services. The company thus focuses on brand management, where it owns and maintains rights in a specific brand name, but the design, development, manufacturing etc. may have been transferred to other actors outside the company.

Relationship management between the OEM brand owner and its suppliers changes dramatically in this situation, because the suppliers are directly responsible to the

OEM customer for the implementation of the whole product. The management, control of R&D and manufacturing are transferred to the suppliers and their subcontractors. The brand owner is interested only in turnkey branded product supply, and its main task is to manage and monitor the successful materialization of the result of the process. For example Moore (1995) has pointed out that the driving force behind leading high-tech products is the brand name.

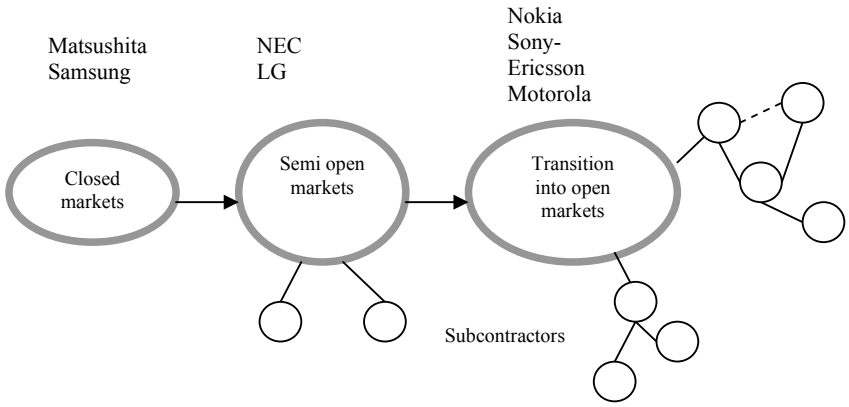

Figure 3: Staged transition from closed environment into open markets.

Based on the analysis of the gathered data, most successful companies were those mobile phone manufacturers that had moved partially or are in the middle of the process to move totally to the open market strategy. New actors in the mobile phone field will find good opportunities especially when moving from fully closed markets to fully open markets. The biggest OEM firms following the semi-open market strategy still behave much as in the case of the closed market.

According to the data Matsushita and Samsung follow mainly the closed market strategy, i.e. produce most parts of their products by themselves. However, they have started to make use of the semi-open market strategy, by relying on subcontractors, system integrators, and technology platform providers. Further, NEC and LG operate on the basis of the semi-open market strategy. They have outsourced at least parts of their product manufacturing, e.g. NEC mentions Celestica as one of its contract manufacturers (CM). Nokia, Sony-Ericsson and Motorola are in transition in to the open market strategy, e.g. Motorola mentions that it operates with over twenty CMs. Nokia again offers its proprietary software platforms to other companies. Many of the main mobile phone manufacturers are in the stage of clustering their CMs, also according to their R&D abilities. The above mentioned company, Celestica, has the

capability to follow through the whole supply chain. At the same time the company is responsible for the functionality and efficiency of its subcontractor network.

Based on the classification of the mobile phone manufacturers, it is time to contemplate where the case company's primary customers in fact are located. In the case of the closed market strategy the customer is the mobile phone manufacturer. The problem is how to find the right entry point into the company, i.e. to whom to sell the complex software tool that covers the whole life cycle of the product.

When moving towards mobile phone manufacturers that follow the semi-open or open market strategies, the situation changes significantly. In these cases the actual customer can be found either from the brand owner OEM company or from the network serving the brand owner. The problem again is to whom to sell, but especially how to argument the value of the product in the network (or in its R&D and manufacturing cluster), i.e. the benefits of the software application that covers the whole life cycle of the product, when parts of the life cycle have been allocated to different network parties.

4. Actors in the Opening Software Markets

In the following the role of CMs is analyzed from the view point of the case company, keeping in mind that contract manufacturing is organized differently in semi-open and open market strategies than in closed market strategies, were OEM companies control the whole life cycle of the product.

The vide spectrum of CM activities is described frequently using different terms, depending on the relationship to the rights of the product development results. Contract manufacturers are called e.g. Electronics Manufacturing Services (EMS), Original Design Manufacturing (ODM), Contract Product Development (CPD), or Original Design Engineering (ODE) companies. These are independent companies that design and produce electronic devices and equipments on behalf of their OEM customer. Usually the OEM owns the brand, but in the case of the ODM, the ODM company owns the design results and the product is sold under the name of the OEM company. In the CM type of business the production process may include also mechanical component production and assembly. However, the actual core service is

the electronic device assembly. The ODE company concentrates on design, but allying with EMS company it can also offer product manufacturing.

Lüthje (2002) has drawn some scenarios concerning CM companies and their near future possible changes, as well as reasons for this anticipated development process:

- In the past the production chains were tightly integrated, but step by step they have developed to chains built up from basic components. In consequence of this development, the main target for the companies in business has become to manage and to coordinate the life cycle of the new technology and the new products.
- The control of the market has shifted from the assembly and manufacturing companies to the product designing and defining companies. In the same time the innovation of new products has also changed away from the production.
- Supplier pyramids are replaced by inter industry cooperating networks where the leading company governs the technological development in the main market segments.
- The accelerated pace of technological changes and the R&D process has brought significant uncertainty in the value chain. Companies have hard times to manage their production volumes, resulting usually in overcapacity.

Figure 4 shows Celestica's value net as an example. It encompasses the whole life cycle of an electronic device, from design to maintenance. Co-operation between the product's brand owner and the CM starts from the need to specialize. The rapid development of technologies and hard competition between companies demand them to launch their products ever faster into the markets. However, they are not capable to succeed in this alone. Only by working together with some other and all focusing on their core competences they can gain larger pieces from the total market, thus this is a real win-win situation.

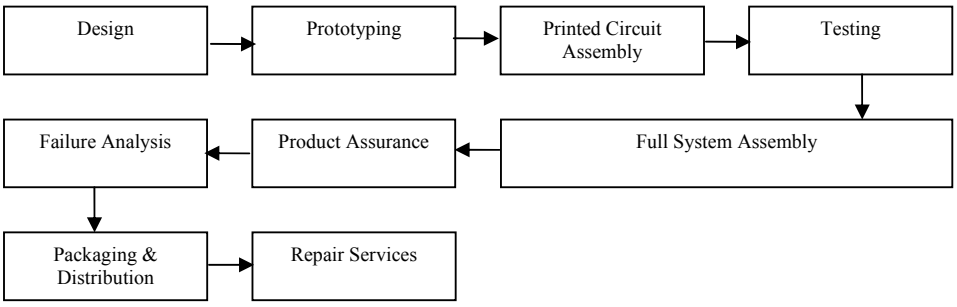

Figure 4: Celestica's value chain (partial), source: www.celestica.com.

To illustrate this, the biggest EMS companies are listed in Table 1, based on Roberts (Roberts 2003). The table shows how all the largest EMSs are expanding their activities also to the other parts of the product life cycle, horizontally as well as vertically. Furthermore, Table 1 shows the main markets where the EMS companies are targeting their businesses. The production chain column describes coarsely the phases of the product life cycle that the companies cover in their offerings. The IT-competence column depicts the general IT-strategy of the companies. This is most interesting from the view point of the case company, in order to find out how the EMS companies utilize various software applications in their processes.

Deck and Strom (2002) depict a model that describes CM companies' behavior, the model includes three levels:

1. *Strategy level* where the whole cooperation chain for R&D is defined and where it is decided how to select partners and how the cooperation is governed.
2. *Process and management level* where it is defined the cooperation between partners and how the teams and processes work.
3. *Information technology level* where the focal aim is to support the R&D done in cooperation.

Table 1: Leading EMS companies and some characterizations.

Company	Markets	IT-competence	Production chain
1. Flextronics Electronics Manufacturing Services (EMS)	Automotive, communications, (IT) infrastructure, consumer, industrial, medical	Utilizing extensive ERP[1]-applications	Concept study, concept refinement, detailed study, design validation, process validation
2. Solectron Co. (EMS)	OEMs, automotive, communications, computing and storage, consumer products, industrial, medical	Real-time Production Monitoring, Design Collaboration, Streamlined Supplier Interactions	Design and development, manufacturing, materials, logistics management
3. Sanmina-SCI Co. (EMS)	Communications, computing, multimedia systems, industrial and semiconductors, defense and aerospace, medical, automotive	Common integration and collaboration solutions architecture	End-to-end product life cycle management
4. Celestica Inc. (EMS)	Computing, communications, consumer, industrial, medical, aerospace and defense, mobile communications, automotive, telematics	Globally consistent and integrated information technology platform	Complete lifecycle - from design through delivery to after-market services
5. Jabil Circuit (EMS)	Automotive, computing and storage, consumer, instrumentation and medical, networking, peripherals, telecommunications	NA	Design, test, prototype, assembly, integration, fulfillment, returns, warranty repair
6. Elcoteq (EMS)	Terminal Products, communications Network Equipment	NA	Design, NPI, manufacturing, supply chain management and after-sales services

Furthermore, the authors predict that the software applications for managing the integrated development chains will in the future play a more significant role than at the moment ERP-solutions play. Though, the cooperative methods in R&D take its own time to function well. The opinion presented by Deck and Strom (2002) is interesting and promising seen from the perspective of the case company. To manage the whole life cycle of the product it is possible to attain notable cost savings and enhancement of effectiveness in development work, manufacturing, distribution, and maintenance. The CM can choose in each phase the best suited components and processes and the communication between companies becomes easier and common system infrastructure can be used effectively.

[1] Enterprise Resource Planning

5. Value Net Innovation for the Case Company

Utilizing the value net framework it is possible to evaluate the value consumption changes that are taking place among the prospective customers of the case company, i.e. to try to find new views to value creation for the case company. The analysis is done again from the perspective of the tool set offered by the case company, but not at as detailed level as in Figure 2. Rather, aggregates of the value consumption activities of the customers are used. The analysis starts with the idea that a mobile phone brand owner can keep in its hands all or some of the phases of the product life cycle, or outsource them totally. Respectively, the CMs can also practice the closed, semi-open, or open market strategy in their own value consumption activities.

5.1 Brand owner controls all the production components

The brand owner can control the whole production chain beginning from the concept design until the product maintenance, Figure 5. In the strictest case there does not exist any principal-subcontractor relationships and no CMs are used, if not the equipments and software used in manufacturing are bought from outside the company. This corresponds with the closed market situation or a specific open market strategy where the CM competes in cooperation with the brand owner and with the efficiency of its own design, manufacturing, distribution, and services. As an example of this kind of controlling of the production chain are Matsushita and Samsung. They govern over the whole production chain. This is typical both in Japan and in Korea where the companies belonging to keiretsus and respectively to chaebols have in the past been quite reluctant to outsource their activities to the CMs.

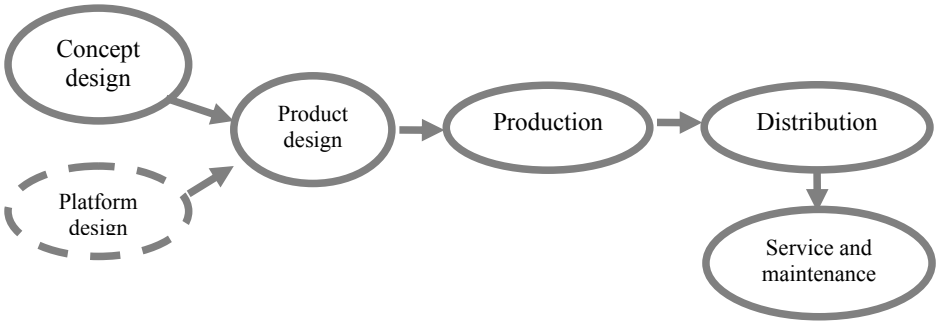

Figure 5: Brand owner controls the whole life cycle of the product.

To control the whole production chain requires from the brand owner sufficient own or other resources that it totally controls. This strategy on the other hand can lead to stiffening of the R&D and production processes. This can in a dynamic market situation hinder cost effective working. These problems have been the main reasons why brand owners have started to move to use the MCs.

5.2 Brand owner controls part of the production components

In the second mode part of the production chain situates outside the brand owner, i.e. activities are partly outsourced. Figure 6 shows how the platform development and the physical production (e.g. assembly) itself has been outsourced to the subcontractors. On the same time the principal performs all other activities and phases of the product's life cycle.

For this environment there is a logical explanation, the purpose to keep in own hands all those phases and processes that are customer-centered – especially product definition and customer services – whereas standard platform or standard technologies and outsourced production enhances product's cost effectiveness.

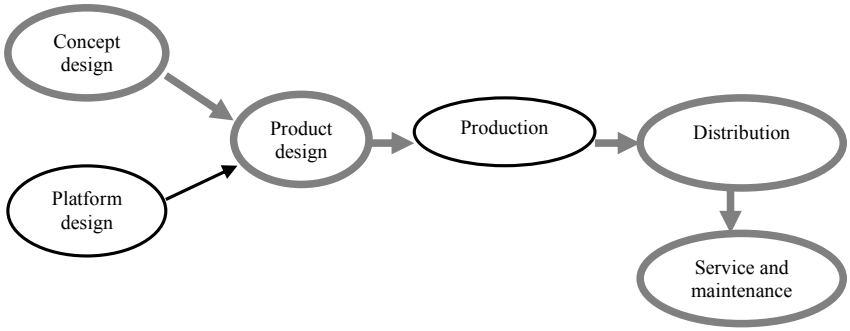

Figure 6: Brand owner controls the customer-centered parts of the life cycle of the product, gray ellipses.

However, the contract manufacturing business shows clear transition from the traditional manufacturing and assembly activities upwards the value chain, i.e. several EMS companies have extended their know-how both horizontally and vertically.

Vertical manifestations takes place when an EMS manufacturer starts to design and produce the components needed. This brings the advantage that the producer company

controls better than its competitors the prices and the availability of the components. CMs have also started to obtain designing and production capabilities as well as other know-how for software programming, components, and knowledge in the governance and logistics of the production chain.

Horizontal expanding takes place when the CM adds phases in its value chain by new core competencies that are before or after the present situation. This is usually and fastest done by acquisitions. For example, if an EMS company has initially its core competence in manufacturing (assembly) process it may expand backwards and start to offer product design or forwards to undertake the product distribution as well as the activities belonging to the service and maintenance. The resent Flextronics' acquisition of Microcell-company (ODM) and its R&D and design know-how is an example of this kind of business activities. The CMs do not control the whole development life cycle thus they are not able independently to design and develop own products to the markets (Lüthje 2002).

5.3 Brand owner does not control the production components

The third main alternative consists of totally outsourced production chain, Figure 7. According to this business model the customer of the production chain (the principal) acts only in the role of the owner of the brand name and the whole life cycle of the new product is trusted in the hands of the CM. The CM again can divide the production chain in suitable parts that the company then controls totally or partly,

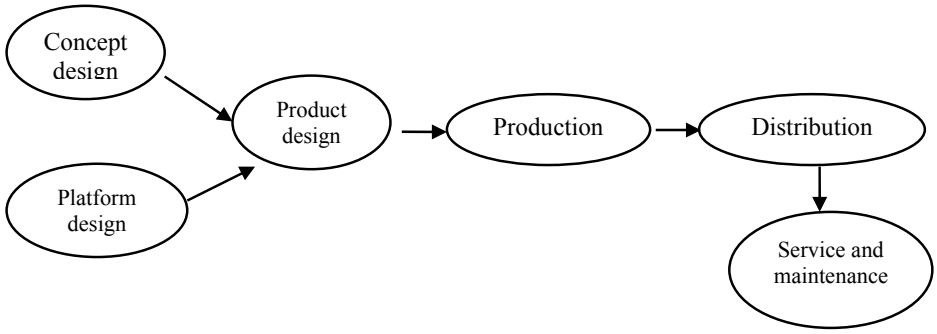

Figure 7: The CM controls the whole life cycle of the product.

according to the efficiency factors. Controlling the whole production chain has its rewards, but on the other hand there can exist and form the same hazards and

problems why the brand owner in first place has outsourced, i.e. inability to respond to the fast development of the markets and technology changes.

6. Conclusions

From the case company's perspective it is essential to estimate how the opening and change process will have an effect on the success of the offered software tool, and understanding the tool's special competitive factor, i.e. the whole coverage of the product life cycle. During this evaluation it must be remembered on one hand the CMs operating in the mobile phone business and on the other hand the above described development process concerning the restructuring of the whole product life cycle that is happening between the mobile phone brand owners and the CMs.

For example, the know-how of Sanmina-SCI extends from the product design until the aftermarket product services and support. At present the mobile phone providers Matsushita and Samsung operate in a closed environment or according to the "Brand owner controls all the production components" business logic. LG's and NEC's strategy and business logic can be described by the "Brand owner controls part of the production components" mode. Motorola, Nokia, and Sony-Ericsson have advanced furthest among all mobile phone providers in the direction of the open markets. Stemming from the different cooperative habits with the CMs and the mobile phone providers the actual case company has to practice at least three different approaches trying to catch customers and partners in the mobile phone industry. The possible methods are:

1. Direct connection into the development processes of the brand owner,
2. Indirect accession to the selected development process parts and cooperating with the CMs supporting these same segments, and
3. Direct interlinking with the CMs' processes.

Marketing and sales efforts must be targeted in the first case to Matsushita and Samsung, they control totally their own production chain. Correspondingly, in the case of LG and NEC, the mobile phone providers should be approached both the brand owner and the CMs used. In the third case, the case company should approach only the CM and especially trying to find out those companies that are expanding aggressively in the development phase and perhaps in the service sector.

In Asia the big operators – among others, NTT DoCoMo in Japan and KDDI as well as SK Telecom in Korea – maintain notable power over the local mobile phone manufacturers. This situation makes the phone manufacturers difficult to pursue towards an open strategy.

The different business logics of the case company's prospective customers were quite clear, based on the above discussion how the mobile phone industry is opening and as its consequence of changing industry's value networks. The case company has to broaden the target company segment to include also the CMs in the group of prospective customer. According to this analysis these CMs will in the near future have significant importance in the case company's efforts to cross the product chasm and striving for more profitable customer segments.

In the light of this analysis it seems that the case company, like other firms developing new tools, has to aim its sales efforts in the opening markets just in the direction of the CMs. In the semi open and in the closed markets the brand owner is not necessarily aware or is not interested of what kind of tools the CMs are using. This is not the question where the closed market's working is shifting in the chain backwards among the biggest CMs. In fact, the previous vertical production chain transforms to wider network and is based on ever more open part product solution. To get this network as a customer imposes challenges on a company that offers software solutions and tools that cover the whole life cycle of the product. Figures from 5 to 7 illustrated the principal configurations of customer value consumption activities. For software vendor these consumption activities are important in order to organize its value creation activities. This article also showed that it is worth to analyze the mobile business with different networks in order to find the most profitable customer segments and possibilities to enlarge company's own international business network.

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