Orchestrating Actors in a Business Network: A Focal Actor's Perspective

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Introduction

Orchestrating other organizations within a business network is essential when trying to respond to challenges of fast technology development and increasing global competition that are causes of uncertainty in today's world. In order to increase the sources of knowledge and resources, firms try to use external resources and knowledge of selected partners and thus concentrate on their own core capabilities and business. The effective coordination and control of their partners' knowledge and capabilities as well as operational efficiency are critical in the process of creating value together in a network.

This paper aims at describing and explaining the orchestration of actors in a business network evolution from a focal actor's viewpoint. The business network in question is Home Commerce business network in Elisa (the 2nd largest telecom operator in Finland). The main focus when examining of actor-orchestration in a developing and growing business network is to explain and describe the interdependency between the focal actor (Home Commerce business, HCB) and other actors creating, developing and manufacturing platform and services in this business area.

Home Commerce refers to a set of Internet-based services targeted for consumers and accessible at home via different terminals. Internationally, the concepts of "*Future Home*", "*Smart Home", "Intelligent Home", "Digital Home", "Networking Home", "Smart Environments", "Internet Home", "Automated Home" and "Smart Housing*" are used for platforms and services in this business (Masala, December 16th 2003). These concepts refer to "*a house or apartment with a cabled or wireless intelligent network used to control signals for building automation or transmit multimedia signals" and building automation means here "home automation, residential system technology, residential wiring technology. It describes the sum of all automating measures in buildings (including rented housing and private*

homes). Building automation makes it possible to control and regulate technical systems to ensure efficiency, primary energy savings, productivity and comfort." [1]

As I am mainly interested in knowing how a focal actor orchestrates other actors in a business network, I have chosen the following research questions:

- What is the role of a focal actor in the process of mobilizing a business network of several actors?
- What are ways in which the focal actor tries to manage its position as a leading actor in a developing business network?

This study has both theoretical and empirical goals. At the theoretical level, the objective is to describe and explain the mobilization of network via orchestration of actors and network-capabilities using concepts of the Industrial Network Theory (IMP), Strategic Management and Resource-Based View of the Firm (RBV) and especially its extension of Dynamic Capabilities. At the empirical level, the objective is to provide a case description of a longitudinal study based on several network-cases within a single case corporation. This re-search is a part of an ongoing dissertation study.

I have decided to look at network construction as the outcome of dynamic process of orchestrating other actors, where the focal actor interactively tries to shape and develop the rules that constitute and direct business relationships with other actors. This paper assumes that actors seek for control, which is an important factor in both orchestration of other actors in network construction and maintenance. The distribution of power in a business network is assumed to be unequally divided and to change over time.

The study is organized as follows: First, I will describe the theory background of selected, above-mentioned research traditions. Secondly, the different types of collaboration forms that are considered to be critical in this emergence are discussed, with special attention being paid to identifying the network-capabilities supporting the orchestration of actors,

[1] http://www.inhaus-duisburg.de/en/meilensteine/glossar.htm

which the focal actor created. The role played by the focal actor and network-capabilities is analyzed. A discussion of the theoretical and managerial conclusions and suggestions for future research conclude the paper.

Theory background

The Industrial Network Theory (IMP), Strategic Management and Resource-Based View of the Firm (RBV) and Dynamic Capabilities-view provide some relevant concepts for this study. These concepts are used in different levels of analysis: IMP and Strategic Network are used when analyzing the network environment whereas RBV and Dynamic capabilities are used when analyzing the focal actor

The network approach in the Industrial Network Theory (IMP) is based on the idea of markets as networks of exchange relationships (Ford 1980; Axelsson 1992; Johanson and Mattsson 1992; Håkansson and Snehota 1995; Easton and Araujo 1997). This view of markets as interconnected web of relationships is a useful for this study because it allows operating in a network, using the business network as a unit of analysis. It also suggests that networks represent a complex system in which different interdependencies between actors are characterized by both competition and cooperation, continuously constitute and reconstitute business fields (Mattson 1985; Alajoutsijärvi et al. 1999; Halinen et al. 1999; Halinen and Törnroos 1998; Håkansson and Waluszewski 2002). In industrial networks, organizations control some resources directly and some resource indirectly via dependence relations with other organizations (Forsgren et al. 1995, 21). This IMP-approach recognize that a network can change and develop over time, and that the collective effect of the developments in network relationships can have an impact on actors' positions in a network and a network structure as an entity. A position in a network is defined by the characteristics of the company's relationships and the benefits and commitments that arise from them (Ford et al. 2002, 7; see also Johansson and Mattsson 1988).

Miles and Snow (1986, 63) suggested that the arising new organizational forms are both causes and results of the changing nature of the new environment, and further, strategies and organizational forms are based on managers' attempts to match the existing capabilities to the changing environment. The collective benefits and the division of activities in a network allow actors of a network to specialize in the value-creation activity supported by their own knowledge, resources and capabilities (Jarillo, 1988; Miles and Snow, 1986; Park, 1996). Moreover, actors' interests and alternatives can change over time, and they are subject to negotiation with other actors when pursuing after a collective goal, and they concluded that collective action depends on the ability to combine and mobilize convergent interests (cf. Araujo and Brito 1998). Thus, a focal actor needs to have managerial capabilities in order to be able to orchestrate other actors towards a common goal of a business network.

Furthermore, the product development today requires vast investments, resources and knowledge, and it is hard for a single company to pursue new product innovations cost-effectively and time-sparingly because of the rapid and disperse technology and knowledge required. Companies try to overcome this by seeking knowledge transfer and creation through vertical and horizontal networking (Håkansson and Snehota, 1995; Teece et al. 1997; Teece 1986,1989, 2003: Möller et al. 2002).

Firms are obviously not only trying to influence the evolvement of networks but they intentionally try to construct so-called value nets or strategic networks to achieve their strategic and business goals (Jarillo 1993; Parolini 1999; Spencer 2003). These goals can be private, firm's own goals and/or common goals of a business network.

Networking requires interaction among individuals and actors acting in certain roles and positions in various systems involved in the distribution of goods and services (see Turnbull 1979). Further, flexibility in organizational boundaries allows more possibilities to interaction and knowledge-sharing and learning between and within organizations (see e.g.

Nonaka and Takeuchi 1995; Amit and Zott 2001).There is a range of managerial choices in networking that exist when actors make choices about how to manage a business relationship. Ford et al. (2003, 179-182) presented three aspects of "networking" in business relationships: The first aspect involves choices of when to "obey the rules" and when to confront the status quo of accepted ways of business. The second concerns the choice between consolidation and creation: when to consolidate its existing position, when to change its position by developing new and different relationships and when to create a new position in a network with the help of existing relationships, or with enabling new relationships' development or with increased effectiveness in its operations. Finally, the third aspect is concerned with the choice of when to coerce others and when to concede to the objective of a network participant. Firms are expected to simultaneously attempt to control some counterparts whilst concede to others.

Change is arising from the relationships between actors and from the surrounding competitive environment. As Halinen and Törnroos (1989) argued, business actors are not only interdependent at company-level but also on a broader contextual setting specific to a company and time in question (i.e. past, present, future). Halinen and Törnroos (1998) used the term embeddedness referring to relations and dependencies with organizations. In the Industrial Network theory (IMP), change mechanisms are either confined or connected, where the former is associated with a degree of stability and the latter is associated with more radical change where as stability in networks is characterized in the long-term nature of relationships. In networks, the exchange relationships are defined connected if exchange in one relation is contingent upon exchange in the other relation (Cook 1982, 180), and therefore, in order to understand network interconnectedness, direct and indirect relationships are of obvious value (Hertz 1998, 5). Change can be characterized as incremental or radical (Halinen et al. 1999).The interplay of both stability and change assumes that incremental change during the

stable periods develops through adjustments to the existing system, with the activity patterns remaining the same, whereas during revolutionary periods the deep underlying structures in the system also change.

According to Mintzberg, Ahlstrand and Lampel (1998, 175-231, of the Learning School of Thought in Strategic Management) in professional-type of organizations that operate in highly complex environments, a collective learning is necessary as the knowledge required to create strategy is widely dispersed. Further, organizations facing truly novel situations usually have to engage in a process of learning in order to understand emerging change.The Resource-Based View of the firm (RBV) considers strategic capabilities to be a pool of the internal resources important for the creation of competitive advantage (Penrose 1959; Rumelt 1974; Wernerfelt 1984; Barney 1991; Zollo and Winter 2002). When considering capabilities in firms, many scholars have written about dynamic capabilities as a source of advantage in unpredictable environments (see e.g. Teece et al. 1997), and the main thrust in the discussion of dynamic capabilities has been how firms integrate, reconfigure, renew and transfer their own resources and the resources they control i.e. the way firms organize their operations successfully in a way that facilitates knowledge sharing and creation (see Grant 1996; Amit and Zott 2001, Eisenhardt and Martin 2000, Teece & al. 1997). Eisenhardt and Martin (2000, 1107) defined dynamic capabilities as the firm's "*processes to integrate, reconfigure, gain and release resources —to match and even create market change."* Companies operating in a network environment have to develop specific organizational capabilities, which are called network-capabilities in this paper, in order to operate and survive in a network context (see Möller et al., 2003). This view is supported by the work of Gemünden and Ritter, who speak of network competence (Gemünden and Ritter, 1997; Ritter, 1999).

Methodology

This study is an embedded multiple-case design (Yin 1994). The case design is a longitudinal, multiple-case study but conducted within one case corporation. The focal actor is a single organization, Elisa[2], and more specifically one of its business groups *the Home Commerce business group* (HCB). This decision was also guided by the good access to all the information and Elisa's cooperative attitude shown towards the study. Moreover, in order to understand the path-dependent and accumulatory characteristics of building capabilities, it required a longitudinal study.

The case corporation, Elisa, is a nationwide telecommunications group whose core business areas are ElisaCom, Elisa Mobile, Elisa Networks in Finland, and Elisa Kommunikation in Germany. HCB is part of ElisaCom. HCB was chosen because the business services HCB provides, as well as the technologies used, differ from those used earlier in the case corporation. Also, business processes, functions, activities, business requirements, and marketing and business strategies of HCB were seen to be different to those of traditional telecommunication business (i.e. fixed line telephone business). HCB has integrated several technologies, capabilities and resources from a number of actors in different industries to create services for consumers and communities, (e.g. Kotiportti™ which consists of various subscriber connections and community services (see e.g. Kaasinen, 2001, 51); household monitoring and security systems; Efodi -learning space: IS-services for publishers, schools, groups, students and teachers). The timeframe in this study is 1999-2003 during which the HCB started and developed its business services and networks.

In order to capture the development dynamics of evolving business networks and the challenging task of orchestrating actors in cooperation and competition, a longitudinal study was required in a field that is characterized by technological and commercial change and

[2] see www.elisa.com. Elisa is the 2nd largest telecom operator in Finland

uncertainty (Huber and Van de Ven, 1995). Development of the Home Commerce business (HCB) matches these requirements. It is based on several emerging technologies and its commercial development has been influenced both by the "e-hype" period of the late 1990's and the bursting of this "bubble" in the early 2000. Furthermore, as I wish to examine the interaction between a focal actor and networks in which it is embedded, I need an approach that enables us to capture how events unfold in a specific context: this requirement is matched by the strong aspects of a longitudinal case study (Pettigrew 1997; Van de Ven and Poole 1990). A case study is claimed to increase the understanding of the complexity of process and change (see Van de Ven and Poole 1990; Pettigrew 1990), whereas Hartley (1994) emphasized the tailor-made nature of a case study as it allows the observation in a real-life situation.

Triangulation is used in this study to guarantee the validity of this study. Research documentation in this case study consists of both information about the telecommunication industry in Europe and the case corporation. Available corporate documents and interviews were used as primary sources of data to examine the development of the selected business area and its business networks. Secondary data sources like partners' websites, technological research reports, journal articles, competitors' business intelligence analysis and publications of the ICT-sector were used to complement internal data sources. Approximately 30 persons representing various business units and subsidiaries of Elisa were interviewed during the period of 1999-2003 (see reference list). Interviews included telephone- and face-to-face conversations and emails confirming the issues discussed. In addition, complementary questions we asked and answered in an email, and additional meetings were kept, when relevant, to guarantee validity of the findings. The interviewees were corporate-level managers, managers/employees in the product management or -development units, and employees/managers in subsidiaries providing services for or with HCB, or

managers/employees in the Research Center[3]. Internal data gathered consists of articles, project documents, e-mails between members of the projects, strategies, business plans and annual reports. As the development of HCB primarily took place through inter-organizational projects the documents used in the case were arranged in chronological order by project.

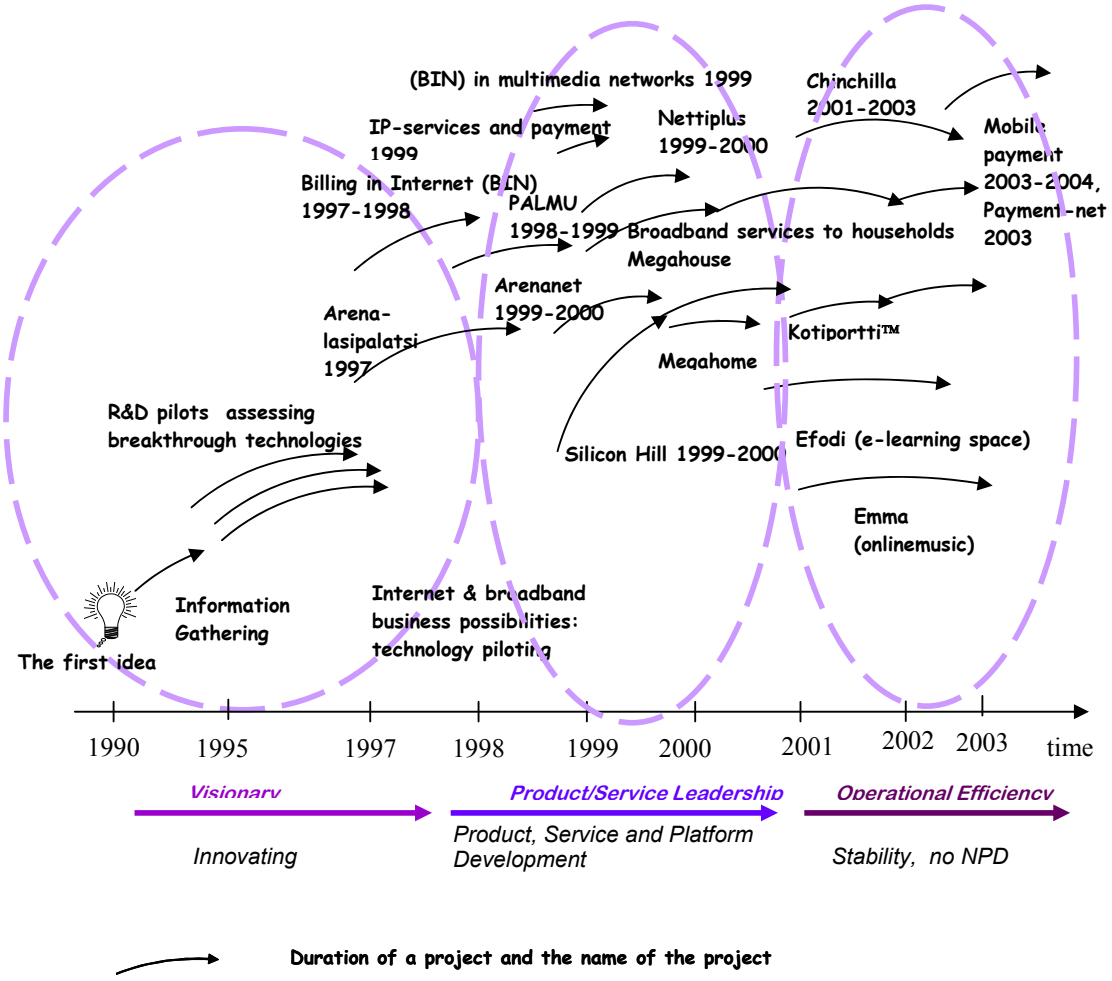

Figure 1. The development process and main projects of HCB during the years 1990-2003.

[3] The Research Center is responsible of the technological and/or commercial researches including process and platform development and innovations relevant for the case corporation. It also cooperates with the product development units within the case corporation and with external partners.

Emerging business networks of Elisa *Home Commerce* (HCB): Development process during 1990-2003

First, this paper provides an overall view of the development process of Elisa's *Home Commerce* Business Group (HCB) through the period 1990-2003. The types of collaboration forms through which HCB mobilized its networks and orchestrated actors are then examined together with a discussion of the capabilities utilized during this evolution process from the viewpoint of a focal actor. Figure 1 gives a broad view of the whole development process and the main projects of HCB. Some of the projects like Megahouse had several continuing R&D-projects during the following years under the same name. The main projects are only shortly presented in this paper due to lack of space.

The Period of Innovating 1990 - 1997

European telecommunication networks of the 1980s and early 1990s were constructed under monopoly conditions (Beardsley, Bray and van Rooijen 1995, 157). During the first years of this study period, the main drivers of change were technology (e.g. Internet, broadband, multimedia) and the deregulation in Europe and globalization of the telecommunication market. Once the economic recession of the early 1990s in Finland was over, the case company began heavily investing in R&D projects, which led eventually to organization of the MuMe-team (this was the Multimedia team which later became HCB). This team participated in several technology piloting projects. Moreover, in the early 1990s, the R&D was a linear process and the research was separated exploring technical options of new breakthrough technologies.. A traditional R&D framework (see e.g. Teece 1986, 1989, Steinbock 2000) links research and development with technology transfer. During 1990-1998, the capabilities acquired during this phase were technology-and project-related. When other resources or capabilities were required to development new services and products, external partners were engaged solely on temporary, project-based contracts.

BIN, Billing in Internet, in 1997-1998. was an internal collaboration network established to find billing solutions in Internet-technology-based business. The participants of BIN were the member of Elisa's Research Center and the representatives of the business units' R&D-personnel. However, it was seen that internal knowledge and information was not enough in Internet-business. The challenges found were related to security issues as well as costs of R&D. Therefore, search for collaboration with other ICT-companies and institutional agencies started. **Palmu** was a result of this and in it, HCB also became an active member of national and global cooperative forums in which the competing and collaborating companies from ICT-sector participated, developing new standards and assessing the possibilities offered by new technologies. In the R&D-network, called Palmu, the case company was an equal partner with the other participants; and they were mutually independent. Palmu's primary goal was to find a way of creating efficient web-based services and payment methods in the new network environment (Isomäki and Jäntere 1998, Palmu 1999; Hölttä 1998a, 1998b; Palmu-projektisuunnitelma; Palmu-kokousmuistio; HPY Research 1998). Of important multimedia projects, the core multimedia network was built in the **Arena-lasipalatsi-project** in 1997 that preceded the **Arenanet (A-net)-project** in 1998-2000 in which the multimedia-based infocity -services were created.

The Period of Product/Service Development 1998-2000

Developments in 1990-97 resulted in the creation of a technological platform of enabling Internet and broadband technologies, which could be used in a more business-oriented development of the home-commerce area. In Finland, this coincided with the deregulation of the telecommunication sector in 1998. During the period 1998-2000, the IT boom and rapid changes in competitive environment caused organizational changes, while new business and related projects received a higher proportion of resources and investments than they had before. R&D projects completed in 1990-1997 provided insight and direction

suggesting the types of new knowledge, resources and capabilities required when constructing architecture based on the new enabling technologies. In Elisa, it was clearly understood that gaining competitive advantage in the new Internet- and multimedia-driven business required additional technology, business and managerial capabilities. This capability gap was perceived to be growing wider until Elisa's top management decided in 1998 to start building capabilities by establishing a product/service-oriented business unit, which later became HCB and provided funding for further network projects.

The technology-platform as well as knowledge and capability building continued in **BIN-in-multimedia** 1999 –project, **IP-services and payment** –project in 1999, **Nettiplus** 1999-2000 which created self-service and security platform for the case corporation.

Silicon Hill –projects were cooperative alliances between high-tech companies Nokia, Hewlett Packard, ICL, Elisa and Amiedu in 1999-2000 that were considered to be important in capability- and R&D-process development. The objectives were to utilize and to develop core competencies and capabilities in both network – and communications technologies, to create a functional technology development-, demonstration- and piloting -environment for the companies in the area of Pitäjänmäki in Helsinki (Hölttä 2000). In these projects, Elisa especially aimed to fine-tune the product concepts and ideas created during the previous R&D-projects in 1990-1997. Elisa also tried to create a best practice-method with which Elisa could manage several concurrent R&D-processes and/or projects in different business units including several products and services (Hölttä 2000). Mainly as a result of these Silicon Hill –projects 1998-2000, the resource allocation shifted from separate sequential R&D to parallel R&D processes. In these R&D-projects, there was both parallel progress as well as sequential continuity in R&D in the main research areas: billing and paying in Internet, broadband- and multimedia based service- and platform-development. Also, the learning of partnering and close cooperation with global companies started in the Silicon Hill.

Moreover, **Efodi**-learning space started from Silicon Hill. Efodi was later integrated to HCB's business in 2001. Efodi started as an R&D project aiming to create an internal learning environment but it proved to be good as a general learning platform. Soon, it was a growing business network with several partners from publishing, schools, universities and course-keepers. Efodi widened the scope of industries that were involved in HCB's business either as customers or partners. Thus, more knowledge of different industries were accumulating to HCB.

The first 'real' business network aimed at multimedia-technology-based business was **Arenanet** (**A-net**). The driving vision behind A-net, a coalition of culture and technology triggered by the City of Helsinki, European Cultural City of 2000 project, was to offer broadband-based services to every single home in Finland (Lehmus 1999); (Salmi 1999; Tenhovuori 1996). By joining this network, HCB aimed at creating competitive advantage in this area of e-business, to strengthen both its role and its image, and to expand its customer base. It was a deliberate strategic move to combine HCB's technological knowledge with new business development. Actors of A-net were chosen primarily for the purposes of creating a broad-range service and information base for an "information age city." Relationships in this A-net were controlled and coordinated by the A-net project group in the case company, and this group later became part of HCB. A-net was a complex, temporary business network attempting to combine the knowledge and capabilities of several actors, but there was no clear view on how to manage network relationships or how to maintain the actors' interest in the cooperation. HCB itself lacked a clear vision of where this business development might lead, and especially whether and how it could be made profitable.

This study shows that rather than being a real business network, A-net was still more akin to R&D, a project for gaining experience of how to be in the multimedia- and Internet-based business. On the other hand, A-net proved invaluable as a means of learning and

establishing relationships. The focal actor gained important knowledge of this type of networking and cooperation, which involves issues such as the types of resource and capability required, how to continue in the multimedia- and Internet-based business, and determining the types of service that would interest consumers. The A-net experience helped HCB realize that a network is an entity to be taken care of, and that in business networks; there are different actors with different roles and positions. One important realization was that the primary reason for some actors' participation in the network was to gain knowledge and experience, which they could use in their own projects and in creating competitive services. The focal actor (HCB) did not effectively manage the roles of actors involved and the network's future development. A-net was also the first project in which actors from several different industries were involved and doing business together under the guidance of HCB. The network was closed down in the end of 2000.

Even if the A-net was not a success from the business point of view, there was a consensus that networking is essential when dealing with multiple technologies and platforms within several industries. The experience confirmed that, in a context where knowledge is sophisticated, expanding and widely dispersed, the innovation and commercialization must be carried out through collaborative networks. Based on experience resulting from A-net and Silicon Hill-alliance, the case company initiated the **Megahouse** and **Megahome** development-project networks targeted at further development of the technology architecture and basic services, as well as new home commerce services. These later became **Mega-business concept**.

The years 1998-2000 were also characterized by strong capability learning beside service technology and concept development. Due to convincing Mega-concept, HCB was given the resources it required to participate and mobilize emerging networks, and resulted in HCB achieving leadership in ADSL connections and the leading position in smart-

home/future-home solutions (e.g. Kotiportti™, household monitoring and home security systems, digital television services) in Finland.

The Period of Operational Efficiency 2001-2003

After the burst of the "IT-bubble", the years 2001-2003 were characterized with rapid ADSL-subscription growth in Finland, and the recession. Elisa was also tuning its processes, making organizational and management changes. HCB's broadband and home networking -business bloomed even if the economic situation was hard on all the operators (Masala 11/2003). The Mega-concept was interesting enough for other actors to join the network. The competitive environment of Home Commerce business changed in 2002, first, when Nokia decided to end its Home Commerce business. However, Nokia's subcontractors continued working together with HCB. The major change in the platform consideration and partnering was that now also other home server -platforms beside Nokia were possible to take into account (Masala January 23rd 2003), and thus, new relationships were formed with other platform providers. These last years of study were also characterized of almost non-existent new product development (NPD) as the case corporation concentrated on its core businesses and cut off the additional branches by outsourcing and terminating businesses.

Two business networks were also integrated into HCB: **Efodi**- the learning platform for schools, publishers, communities, and **Emma**-the online music business in Internet. These two networks provided new capabilities and industry-knowledge to HCB's core team. Efodi was a blooming business whereas Emma faced difficulties with the music -piratism in Internet and the slow regulatory actions in this area. In addition, consumers were not ready to pay the initiated sums for loading songs, images and music-related news from Internet. Emma was in production in 2002-2003. Emma had partners from both national and international music delivery and production companies, and software companies in creating the platform and customer-interface.

A strong interest in e/m-business lead to continuous projects in secure payment platforms and methods in Internet and Mobile business: **Chinchilla,** in 2001-2003, was the

first viable transaction/payment rating -platform[4] for payment in Internet within the case corporation and in it HCB created related technology and business capabilities; **Mobile Payment** –network, in 2003-2004, created a micro-macro payment platform in Internet-Mobile platforms. At the same time of the Mobile payment-network there was a **Payment research –project** in which LTT-research center was in key role. (LTT is owned by Helsinki School of Economics (HSE)). The other participants were Radiolinja, HCB and Comptel. The goal of this research of payment –project was to find out the interest of mobile payment among consumers, businesses and in the finance sector. (Masala, November 11th 2003)

Besides learning of technologies and new industries via new partners, specific portfolio-management capabilities were developed during the last years of the study 2001-2003. Then the HCB's management team started to divide the existing and potential partners in to portfolios according to their meaning and importance for the current and future business. Moreover, strategic management capabilities were formed as the management realized more clearly that a business network is a forum of different strategies besides the collective strategy of a business network. Because each actor has their own business and corporate strategies which in time can change and alter their interest and objectives of value creation in the business network.

Summary and Conclusion

This study had both theoretical and empirical goals. At the theoretical level, the objective was to describe the mobilization of network via orchestration of actors and development of capabilities needed in business network construction using concepts of the Industrial Network Theory (IMP), Strategic Management and Resource-Based View of the Firm (RBV) and especially its extension of Dynamic Capabilities. At the empirical level, the

[4] a platform which assesses and sets the price for different services and products ordered/used in e-business -environment.

objective was to illustrate a development of a new business area called HCB and its business network construction within a single case corporation. The case description was made from the point of view of the focal actor (HCB).

This study makes several contributions to the evolving theory of network management presenting empirical evidence for the crucial roles played by different types of collaboration forms in both the emergence of a radically-new business group and in learning the managerial capabilities required to not only survive in this network context but also to create it. Different alliances, R&D forums, and large-scale project networks provided different types of learning experiences. In brief, they provided the focal actor with different resources and knowledge, in other words, they fulfilled the different functional needs that evolved during the evolutionary process.

This study focused on different forms of collaboration of which some change their nature from temporary R&D-project network to a network with clear business goals and strategy. An important issue is also why some networks develop a step further and a focal actor seemed to be able to orchestrate the other actors? The main reasons for not succeeding in building a business network or to make it profitable were: a lack of business knowledge and environment, not taking into account the customers' view and needs and not understanding the capabilities, business models and strategies required in a networked business. The managers also understood that different capabilities are needed in different processes and business models, and how the capabilities in a rapidly developing and changing environment must be developed according to changing business needs. This also supports the previous studies of dynamic capabilities (see e.g. Teece et al. 1997; Amit and Zott 2001, Eisenhardt and Martin 2000). Also, the case analysis highlights the relevance of understanding the process-like nature of capability development. Only after exposure to a variety of continuing project and networking experiences was the management team of HCB

able to identify and systematically start developing network-management capabilities. This provides additional support to the experimental learning view of dynamic capabilities (Zollo and Winter, 2002).

As seen in this case, the intelligence in a network structure is its ability to share, modify, create and distribute information, knowledge and resources between the different parties, and thus develop and create capabilities needed in network environment. Creating competitive advantage with the capabilities developed and acquired, HCB succeeded in gaining the leading position in ADSL-services which supports the earlier studies of creating competitive advantage (see e.g. Penrose, 1959; Rumelt, 1974; Wernerfelt, 1984; Barney, 1991). This study contends that a key management capability in a rapidly changing business environment is the ability to utilize the available networks and mobilize one's own networks to meet the resource and learning needs that exist. This is not, however, an organizational capability which is inherent. It presumes two aspects – visioning, and networking. One of the most important reasons why a focal actor seemed to be able to coordinate and control the resources of its partners was the comprehensive understanding of the whole business area and technologies, a viable strategy and an attractive business model.

A visioning capability enables a firm to envision its development, at least a few steps ahead. Through visioning, an actor can anticipate the technologies and other capabilities it must develop. Visioning alone is not enough; the resources to carry out networking must also exist. In the phase where an actor wishes to mobilize its own network, it must also be able to offer an attractive development path or a business model (like it was the case of Mega-concept, or Efodi-learning space) if it is to engage partners with cutting-edge knowledge in their own areas of operation. This "functionality" perspective on the role of different collaboration forms suggests that firms with an "architectural" vision and adequate resources can, through network relationships, purposefully attempt to create an extended pool of

resources and capabilities that matches their current and foreseeable needs. If this attempt is successful, a success circle may result like in the case of Mega-concept.

By orchestrating other actors in the network, a focal actor not only gained access to resources of other firms, but it implicitly tried to gain control over other organizations. But in network of many actors, a common goal and strategy of a network can be(come) conflicting with actor's own business strategies over time. This incompatibility of objectives of a network and actors can generally be related to the extent of benefits and values that actors are seeking from the cooperation in a network.

There were several ways in which the focal actor tried to manage its position as a leading actor in a developing business network: The focal actor was the only one knowing the whole architectural construction and business concept. The focal actor tried to understand its partners and their businesses and strategies. It tried to recognize which of the partners are possible future competitors, which actors could have capabilities or knowledge to become a leading actor, or which could be threats to the developing network with conflicting strategies.

The competitive advantage gained by a current resource pool is unpredictable and dynamic capabilities are themselves constantly changing. Therefore, an actor that has developed capabilities in a network context via experimental learning seems to be able to acquire new knowledge and information faster, and to adapt in to changing situations and partners quicker. This visioning and adapting capability makes an actor differ from other actors, and provides a possibility to a leadership position in a network. And thus, being a leading actor, it can influence its future path via network orchestration.

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12/2001. Tapio Kalm, responsible for customer projects. SAS Insitute/Comptel.
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