

Protecting Service Innovations against Imitation – The Case of Mobile TV

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Abstract

During recent years, the importance of service innovations has increased notably. However, profiting from them can be quite challenging. It is not only a question of pricing and marketing the services appropriately, but also about keeping competitors from imitating them.

In this study protecting service innovations against imitation are discussed in relation to the case of Finnish mobile TV. The aim is to examine how service innovation differs from other types of innovation in terms of protection, and how this shows in collaborative innovation activities. Our results indicate that characteristics that separate service innovations from product or process innovations may notably influence efficacy of protection. Furthermore, as creation of service innovations often includes collaborative activities, there is yet another twist to protection issues: On the one hand, companies should protect their knowledge in order to secure their positions. On the other hand, they need to foster knowledge sharing, which may be in conflict with protective measures.

1. Introduction

In recent decades the post-industrial societies have been characterized by rapid growth and expansion of service industries [45] [16]. Services nowadays may easily constitute more than eighty percent, and for sure more than fifty percent of the gross national product [10]. However, their examination is yet in the early stages. One reason for this is that due to the relatively small R&D intensity, service industries have not been seen as really innovative until recently [26]. Service innovations also cover a wide range from fully standardized services to customized ones, which may increase the challenges of holistic research. [27]. Further difficulties have stemmed from the facts that R&D takes place in many areas of a service company, and that service innovations may not be easily separated from product or process innovations. As Drejer [21] notes, service and manufacturing activities are becoming increasingly intertwined: New technologies may allow generation of new services, and emergence

of new services may foster production processes and creation of new business. For these reasons, among others, service innovations have often been approached by utilizing same tools as when examining product innovations.

However, there are some features related to service innovations that clearly distinguish them from product innovations [26]. Therefore also different challenges and opportunities may be related to generation of service innovations, and therefore successful management of service innovations depends on understanding where and when traditional manufacturing logic can be applied to service innovations, and when characteristics of service innovations are so different that a new approach is required.

The elements that are quite easily related to just service innovations [16] [26] include intangibility, perishability, heterogeneity, the highlighted role of co-production with customers, and simultaneity (or “real-time production”) in particular [23] [1] [36]. Furthermore, the role of information and knowledge is very much highlighted both as an input and as an output [27]. Similarities between service and product (or process) innovations include such issues as strong commitment to innovation starting from the very top management, aligning company cultures and systems to innovation processes, and structured and proactive development programs [30].

When concentrating on the differences, it is relatively easy to spot certain management challenges. Among these is profiting from service innovation: there are certain features in service innovations that make them inherently more difficult to protect against imitation – which obviously shortens the time during which the innovating company can be the sole beneficiary of created innovations. Further challenge is related to using the protection to the company’s advantage: it is not self-evident that being able to protect service innovations enables profit appropriation as well.

In this study the challenge of protecting service innovations is taken under closer scrutiny. Our aim is to find out how service innovation differs from other types of innovation

in terms of the potential to achieve protection against imitation, and how this shows in collaborative innovation activities.

The discussion starts from evaluating the possibilities to keep service innovations proprietary in the light of the characteristics of service innovations compared to product innovations. After this the study proceeds to potential difficulties stemming from trying to turn service innovations into intellectual property covered with intellectual property rights (IPRs), considering the inherent need for collaboration in particular. A case-study on Finnish mobile TV is utilized to illustrate protection related challenges. Finally, some concluding remarks and suggestions for further studies are presented.

2. Proprietary service innovations?

One area that is basically common to all kinds of innovations is being able to profit from innovation as a central incentive to invest in innovation activities. The firm needs to have the capabilities to create relevant and interesting innovations, it has to be able to commercialize them, and it has to know how to expand the time during which competing firms cannot diminish its profits by presenting similar innovations to the markets. Sensing what the markets want may be equally difficult or easy for both product and service providers, but already at the stage of commercialization there are differences: it may be much more difficult to describe and demonstrate beforehand the benefits of service innovation that only will exist when the customer buys and utilizes it. When the possibilities to protect service innovation against imitation are considered, the challenges only grow [5] [42] [44]. As service innovations not only are based on knowledge, but may actually consist of it, preventing imitation needs to be approached slightly differently than innovations that are more technical and concrete in nature.

2.1. Varying means of protection

The challenges related to preventing harmful imitation and the solutions to this problem have been examined in various studies. As a result, many protection mechanisms have been identified and evaluated in terms of their ability to actually delay or prevent imitation, and further, in terms of their ability to allow generation of profits and benefits for the innovating company (e.g. [31] [32] [7] [43] [40] [6] [15]). These mechanisms include institutional

protection mechanisms comprising contracts, labor legislation and intellectual property rights (patents, copyright etc.), tacitness of knowledge, human resource management (HRM), technical and practical means of concealment (secrecy, passwords, access restriction etc), and lead-time. However, most of the studies have concentrated on product innovations, and only to an extent on process innovations. Services, if they have been incorporated and addressed at all, have in most cases been embedded in offerings that the companies produce, and thus they have been handled as intertwined with products and processes.

While it surely is possible in certain cases to approach services by applying concepts developed in product and manufacturing context, another alternative that should be acknowledged exists as well. It is a completely different thing to prevent imitation of a 'pure' or 'stand-alone' service innovation and one that can be protected in relation to some technical feature. Besides, in any case the unique characteristics of service innovations make utilizing different knowledge protection mechanisms more or less feasible and readily available.

2.2. Features enhancing protection

Some features of service innovations may enhance possibilities to protect the core knowledge. As Edvardsson and Olsson [22, p 1476] note, "it is not the service itself that is produced but the pre-requisites for the service". From this statement Nijssen et al. [36, p 242] draw the conclusion that because of services' real-time production, "new services go hand in hand with modifications of the service delivery process and changes in frontline employees' skills". Therefore, the role of human resource management (HRM) as a protection mechanism (see [29]) is highly relevant: The managers need to make sure that key employees stay in the company and that they will not give out core knowledge related to innovation. Considering services, and pure service innovations in particular, it is possible that one employee carrying out certain activities literally becomes indispensable. Of course, monitoring and controlling personnel may be important for manufacturing firms with product or process innovations as well, but as many capabilities and skills can become embedded in the products and machinery, i.e., as machinery can carry some of the knowledge (see e.g., [18]), such an emphasized role of HRM may not emerge in

relation to protecting product innovations. Using HRM as a protection mechanism is not easy, but if it is managed carefully, it can become a relevant means of sustaining competitive positions for service firms.

Secondly, Nijssen et al. [36, p 242] note that service innovation is characterized by the need of “fit between the new service and existing systems”, and that organizational inertia is thus more important for creation of service innovation than product innovation. Continuous improvement is thus necessary [26]. This means that there actually is one protection mechanism built in into the nature of service innovations. Lead-time has been repeatedly identified as one of the most effective protection mechanisms (e.g., [15]). While lead-time likely is equally difficult to reach in relation to service and product innovations, the co-production with customers (see, e.g., [33]) and real-time production, for example, have real potential of pushing service innovations into the frontline. If the inertia does not close opportunities to explore new arenas (as investments in machinery, for instance, can do in relation to product innovation), the company may well be able to exploit lead-time as a protection mechanism in creation of market imperfections and consequent profits.

Similarly, technical means of protection may be quite easily at the service innovator’s disposal – especially if the provision of innovation relies on ICT, i.e., if the services are linked to more concrete solutions. This actually is quite typical for services in present day markets [10]. The role of software for service innovation has made it possible to use passwords, encryption, cutting-off access, and other such technical and practical means of concealment (like IPRs as well) possible. Relying on secrecy has also been quite a common way to protect services. Restricting access to knowledge does not necessarily require presence of technical features, which makes practical means of secrecy relevant for services.

2.3. Limited availability of protection

However, restricting access or keeping quiet is not possible in every situation, and the role of customers, in particular, makes using this kind of approach to protection difficult. Customers very likely pass some of the innovation related knowledge on to other service providers, but preventing this may be impossible when the inherent need for co-production of service innovations with customers is taken into account.

This may limit usefulness of certain protection mechanisms notably. Since the customer, the service provider, and other related actors need to communicate actively in order to reach the intended outcomes, using secrecy and tacitness as a means to protect knowledge may actually create more problems than benefits [34], [25]. Relying on tacit nature of knowledge makes it more difficult for competitors to capture the essence of the innovation, but at the same time it may make knowledge transfer impossible also among collaborating parties. Similarly, if secrecy is over-emphasized, it is possible that the communication between the company and its customer is unintentionally limited, which leads to failure in providing an appropriate service. With product innovations such a threat may not have such importance; the customer may well be satisfied to just get the product (and perhaps some guarantee for support in case of difficulties) without having to learn everything about the production or characteristics of the product. In fact, the customer may not want to have any information on the manufacturing process or the underlying technological innovation at all.

There is yet another obvious limitation related to utilizing different mechanisms to protect pure service innovations. The fact that service innovation involves development of new concepts and procedures rather than new technology [39] [36] does not exactly enhance efficient utilization of intellectual property rights [35] [20]. For example, it may be very difficult to meet all the requirements for patent protection. Novelty and inventive step might be achieved, but demonstrating industrial application and technical character may be more difficult. For instance, in most European countries the traditional view is that patents protect technical inventions and technical progress, and that for example business methods should be treated as unpatentable inventions [8] [26]. Further, even when patent protection is obtained (e.g., if the service is integrated to technical innovation), there is a problem of monitoring infringements [3]. Therefore, it is not surprising that only around 5 % of service firms have applied for patent (see [10] about Community Innovation Surveys). Copyright, for its part, only covers expression, not the underlying ideas, which makes it less useful considering service innovations: there is nothing to prevent others from utilizing ideas described in varying plans or manuscripts – if such documentation exists in the first place.

Trademarks, on the other hand, may become very valuable for innovators working with services, as the brand can really be relevant for service firms [10] [9]. Benefiting from trademarks is not without limitations either, however, and knowledge of the legislation is needed on all the different IPRs.

3. Protection dilemma

Even if a company is able to get IPR or other protection to cover its service innovations, it is not sure that it can actually generate profit from them. In fact, also in a more general level maximizing the protection rarely leads to optimal outcomes, and using protection wisely to increase value of an innovation is what actually matters. Benefiting from positive network externalities, standardization, and collaborative activities, for instance, usually requires protection to be loosened and to be used strategically to enable safe knowledge transfer.

This kind of activities may be very important for service providing firms: After all, service innovation typically is an outcome from work of several parties. As Hipp and Grupp [26, p 520] note, it either is characterized “by very close customer contacts or by the integration of external factors in the production process”. In fact, open innovation model has been expanding rapidly and it also covers services and business model innovation, not just product or process innovations [14]. Knowledge is actively extracted from both internal and external sources, and it is also given out, when such an approach is found effective.

3.1. Benefits from approaching services with open approach

There are several factors that encourage firms to innovate more openly. For example, the movement of employees with varying talents and skills has become quite common [7], the availability of private venture capital has fostered operations of new, innovative companies that may be (for reasons such as their limited resources) more inclined to search for external sources of innovation [11], and universities have become increasingly involved in applied, contractual research, and as a result, yet another important source of knowledge [2] et [16] [24]. Furthermore, innovation processes have become more decentralized as a result of intense competition, technological complexity,

rapid technological change, and the higher costs and risks of innovation. Rewards from innovating openly also may be notable, as it allows generation of important innovations that may surface from apparently unexpected sources and enables making use of ideas that others have abandoned [13] [44]. Therefore, it is not surprising that firms currently lean heavily on cooperation and networks [37].

For service firms it is not only the potential benefits from open approach to innovation that matter, but they inherently need to engage into collaborative activities. Consequently, challenges may emerge in relation to using existing knowledge and protecting new innovations. In collaboration, protection mechanisms can become vehicles of harm as easily as they can become useful.

3.2. Downsides of protection

In respect to collaborative and open approaches to innovation, too tight protective barriers may indeed create more problems than benefits. Worrying too much about imitation and concentrating on the threats may lead to overlooking opportunities that knowledge sharing may create [28]. The existence of protection, or using it the wrong way, may prevent collaboration from the very start, or it may cause challenges along the way.

First, the ownership of intellectual property easily leads to varying disputes, which may discourage firms to engage into collaboration. The firm may not reach an image of an attractive partner if it has a reputation of going after everyone that comes too close to its intellectual property, no matter how sophisticated technology or business model it has. Beneficial development paths may be also be completely cut off, if an owner of intellectual property does not want to engage into collaboration but rather holds on to its rights.

Similarly, unnecessary disagreements may arise between collaborating parties over ownership and usage of intellectual assets or over obtaining protection. Because of uncertainty related to new innovation, not everything can be settled beforehand [12]. The problem is, however, that negotiating and contracting is much more difficult when the value of a new innovation can be seen. Also, in a slightly different situation than described above, it is possible that one party hides its existing rights until a new innovation is built on it, and then forces others to unfavorable situations. This is

quite typical phenomenon in standardization processes (cf. “submarine-patents”).

In a more practical level, it is possible that the created barriers unintentionally and unnecessarily prevent knowledge sharing. The company may be willing but not able to share its knowledge; the tacit component, for example, may well become an obstacle for replication and collaboration. Similarly, HRM practices that emphasize protection may turn into harmful ones, and putting every action through lengthy checking process with legal team might slower the pace of collaboration.

Summarizing the above discussion, a lot is required from management of knowledge protection. It is a balancing act, where both the existing knowledge base of the company needs to be taken care of, and the acquisition of new innovations for the firm needs to be safeguarded. The case of Finnish mobile TV discussed below illustrates some of the challenges.

4. The case of Finnish mobile TV

Making different services available regardless of time and place have been among the most important recent trends. For example, people wish to access their e-mails and varying information on different web pages from anywhere. In Finland, for instance, the value of mobile content markets has doubled from 43 million euros in 2002 to 82.4 million in 2007, and the yearly growth in 2007 still is around 7 percent [41]. This development allows spreading of new types of services. Media houses, for example, have become interested in broadcasting TV programs to mobile terminals (handsets), and making TV more interactive. Demand for these types of services is increasing, and the biggest expectations in growth concentrate on music services, mobile navigation, communal services, text message loans – and mobile TV [41].

Given the novelty of the phenomenon, mobile TV development provides a good case for exploring service innovation¹. Furthermore, the fact that mobile TV brings together varying parties makes it particularly relevant considering the topic of this paper: with competitors doing collaboration, for instance, knowledge protection can be observed. Besides, the mobile TV involves not only services as such, but technologies to support them, which makes the

case illustrative in many respects. Indeed, these features were present from the very beginning of the mobile TV.

The Finnish mobile TV was given start in 2001, as certain companies with related technological development projects around DVB-H technology (handset manufacturer, the largest telecom operators) and media houses started pushing the idea through. After several years of development, the first large-scale pilot experiment (FinPilot) involving Finnish Mobile TV was conducted between March and July 2005. It was very successful, and the results indicated that there was a market for mobile TV and the related services, and that the customers were ready to pay for them.

The FinPilot steering group consisting of seven companies felt a need to maintain the common development and even broaden it towards a larger developer community. In late summer of 2005 one of the mobile operators assumed the key role and took the project to the next phase. Preparations by the City of Helsinki for building what became the Forum Virium Helsinki (FVH)² cluster took place at the same time, and this was soon seen as the ideal context for further developments also of mobile TV. Finnish Mobile TV (FiMTV) consequently became the first major project approved by FVH.

4.1. Data collection

In order to see the different challenges and opportunities related to the collaborative case, a case-study was conducted during winter and spring 2007. The data were gathered through personal interviews with business managers that were responsible of the mobile TV business in their firms. Typically, the interviewees worked as development or technology managers, business unit directors, VPs or CEOs, and they were the representatives of their firms in the service development consortia (FiMTV). Semi-structured interviews were used that focused on management challenges concerning the issues of service innovation (e.g., cooperation, competition, contracting, and (in)formal networks). Interviews were conducted with 15 persons representing 13 organizations (the infrastructure provider, the mobile equipment manufacturer, two telecom operators, eight

¹ Case study is relevant approach for research areas, where little academic research has been published, such as services [38].

² FVH is a cluster project that aims at speeding up and easing the development of digital services and contents through promoting inter-organizational collaboration and open innovation.

content providers, and the city of Helsinki), i.e., all the key participant companies involved in the Mobile TV service development were included in the sample. Interviews lasted between 30-120 minutes and they were taped and transcribed. Additional data was also gathered from public sources such as company and project web pages, public newspapers and news archives, and from representatives of copyright organizations in order to get a holistic view of the case.

4.2. Protection as a challenge – Copyright problems

As a result of collaborative actions discussed above, the prerequisites for developing a new service innovation were in place. This became even more concrete, when a network operator was rewarded with the DVB-H network operating license in March 2006, and as the network was opened 1st December 2006. In January 2007 Finnish markets had the network up and running. The terminals were available as well. However, the services were still absent.

In March 2007 only one TV channel and one radio channel was available. This was because of copyright disagreements, which were a serious obstacle for further development of mobile TV related services. Indeed, IPR related issues turned out to become one of the first great challenges for mobile TV.

The core problem was about the disagreement on the nature of mobile TV as a separate business with respect to regular TV broadcasting. While regular TV programs are broadcasted in a continuous flow, mobile TV requires sending the programs (and data in more general) periodically in bursts. This is because otherwise receiving the broadcasts would increase battery consumption notably, which would obviously be less user-friendly and diminish the willingness of customers to adopt mobile TV. This difference in the underlying technological solution gave start to copyright disputes. Broadcasting companies considered that it should not be necessary for them to pay for mobile TV copyrights in addition to regular TV given the fact that they actually are of identical content – even if the broadcasts would not be exactly simultaneous. The copyright holders and their representatives (e.g., Teosto, the Finnish Composers' Copyright Society), on the other hand, felt that if mobile TV produces more business, the copyright owners should be compensated separately. Their reasoning was based on the timing of the broadcasting as well,

though the logic was different: They considered the regular and mobile broadcasts to be inherently separate situations of showing the content – and consequently separate cases of using copyrights.

Because of the copyright dilemma, there was a serious threat that the time and technology advantages of DVB-H technology would get smaller. Already at that point the parties involved felt that the diffusion of mobile TV could be fairly fast after the disagreement would be solved. One of the interviewed managers, for example, noted that he was very disappointed about the whole copyright dispute, and stated that there would be no mobile TV before the principles related to copyright were settled. Similar thoughts were in the mind of another interviewee as well, as he noted that “this whole thing is in jeopardy to fall down because of these copyright issues, these trivial things”. Yet another manager noted that the companies made a mistake in not asking copyright organizations to join the consortium from the very beginning. Protection issues thus hindered collaborative service development severely.

The copyright issues were finally solved in the beginning of May 2007. The representatives of copyright owners decided that it is possible to pay the content related copyright fees based on turnover of the companies providing mobile TV services, and not based on broadcasting time, which was the earlier idea. If the broadcasting company's turnover grows and new distribution channels create new revenue, also the music publisher and authors will receive their fair share. Reaching this agreement enabled broadcasting companies to make the TV programs widely available, and enhanced the potential that money will later come in from subsequent sources, such as more personalized TV and the related services.

Nevertheless, before the new services would become established, there were also other problems to deal with, among them resolving the business model. In this settling the ground rules for communication and knowledge sharing and protection was in a central role.

4.3. Challenges in contracting and allocating rights

The key players in the FiMTV network represent asymmetric actors with different roles (e.g., customers, competitors, suppliers, partners) in the emerging business model: there are infrastructure supplier for the DVB-H

technology, the manufacturers of terminals capable of receiving the DVB-H signal, the content providers (media, programs, services etc.), and the mobile operators involved. The emergent business model, where the mobile operators offer the content as part of their service to end-users, is in many ways operator-driven (though always in close cooperation with the media companies) as opposed to the broadcaster-driven model in which the operator is sub-supplying the content provider, or the wholesaler model in which the infrastructure provider buys the content and provides it through other players. However, the business model is far from being finalized, and there are some disagreements and concerns about the final position of each actor. Only the end-user has a set place, and the existence and the role of the other actors depend on the nature of the technologies, content, and services applied.

These uncertainties are also reflected in the governance of the collaboration and reliance of different control mechanisms. In general, the participants seemed to trust each other's capabilities and goodwill (see also [11] on different elements of trust) so that even experts from competing firms could rely on each other. This was shown in the statements of the managers: "There is trust in the Mobile forum... I knew who to work with. No problem, good guys and substance created trust". However, the collaboration was not completely unreserved. While knowledge sharing was fostered, it was also recognized that not everything could be approached openly.

Openness was preferred at the stage of joint idea creation and learning, and contracts for such activities in the FVH were drafted rather loose³, but when more strategic issues were discussed, competitors were careful not to reveal business information. The issues at hand were carefully separated according to their strategic importance: "Overcoming crises meant putting the business model discussion to a later stage and separating it from the piloting. It was important to mix the pilot and the business a bit to get the pilot contract, but then we needed to drive the pilot, and it was only on the basis of the results that discussions on the business model could be

continued". As the discussion came closer to commercialization and actual utilization of the outcomes, a stricter line was taken in contracting. Tighter contractual governance was used in concrete development projects such as FinPilot. The negotiations lasted almost one year, and the key contract incorporated several sub-contracts. The bigger parties, in particular, were consistent in making sure that their latest innovations would not be misused, and NDAs were used to make sure that knowledge would not flow to outsiders. Secrecy was also considered important in relation to certain issues, both in terms of knowledge flows to outside organizations, and to the participating firms. For instance, the events usually started with a disclaimer that discussion was closed in case someone talked about patent issues or such. Besides such practical means of protecting knowledge, also HRM seemed to be at play: having the same people take part in the meetings not only enabled knowledge sharing and cumulative learning, but also made sure that a new person would not reveal information that would have been kept secret by a more experienced participant.

In a similar vein, discussion on IPRs was not brought forward in the beginning: "who owns it, who has to pay, we deliberately left it to one side and decided we'd do it later". One central reason for this was that even creating the markets on the whole was still under work: worrying too much about imitation would have lead to being left behind. Besides, imitation in the first stages would not perhaps be a problem at all. The more there are alternatives available for customers, the more willing they are to start using new services. Nevertheless, it could be said that it was clear to the participants that IPR and protection issues were present, and that their role would be increased when business models would evolve. It was well realized, that it may not be only with authorities (such as the government or Teosto in the copyright case) that the service innovators need to deal with, but also with each other. One interviewee noted that although in general there are no problems with companies with strong values, it still is possible that one company takes something that is created together and utilizes it to create proprietary assets of its own – or, that it may act fully opportunistically and protect some critical part with IPRs and force others to pay for using such an element or prohibit utilization of it completely: "There are examples of real show-stoppers. Things become very difficult if there is a community trying to create something new and someone files for a patent behind others' backs

³ Contracts at that stage were drafted so as to enable trust creation: "Getting the shared understanding of who will do what, and how the responsibilities are shared in the pilot was one of the key challenges. It was critical to get the people to trust each other so much that we could do this pilot, commit and do it".

and this comes up after a couple of years.” This threat is further advanced as the high degree of co-production and co-design may make it difficult to locate the innovation to a single firm (see also [19]).

In the FiMTV case, the final forms of protection are yet to be discovered – or to become visible: Protection of emerging service innovations was not clearly communicated, apart from copyrights, secrecy, contracts (among them non-disclosure agreements) and patents that were already used where technologies (terminals and infrastructure, for example) or content (copyright protected TV-programs etc) were integrated to service development. Nevertheless, trademarks, secrecy, and such forms of protection were already emerging as a form of protection for stand-alone services not linked to technology or products also. The chosen directions and the outcomes will be shown only later, however.

5. Discussion and conclusions

Based on the theoretical discussion and the case study, it can be concluded that service innovation clearly differs from other types of innovation in terms of protection against imitation. Many of the protection mechanisms available are designed for technical, product or manufacturing related innovations. Even if it is intellectual property rights that we talk about, the developments are considered to be more material and concrete: What really has been done by introducing IPRs, is that the ownership of the right and the actual piece of technology or text, for example, have been separated from each other⁴. In the case of service innovations, there may not be anything concrete from which the right could be separated: the service innovation can actually be completely immaterial and intellectual. This may make it very difficult to find ways to protect service innovations.

The problems related to gaining adequate protection may lead to situations where sharing information and knowledge about them is not really preferred, as can be seen in the FiMTV case: As long as the company representatives were talking about content that could be protected with copyrights, or technology coverable with patent protection, they were quite able to communicate and negotiate. As soon as

the discussion moved to business models and future services, the communication stopped or became utterly difficult. In other words, as long as services could be integrated into products, companies believed in getting them protected and were not worried about that. In case of pure service innovations, difficulties emerged.

Not being able to share knowledge about service innovations can be a path to other problems, however. Related to FiMTV case, Argillander [4] notes that collaboration was an imperative, because “interoperability of handsets and networks is needed to simplify service development and thus shorten the time to market of new mobile TV services”. The same applies to other interfaces as well. Without knowledge sharing there may not be services to protect.

All this suggests that protection is needed, even if acquisition of external knowledge may decrease the tendency to use formal protection mechanisms in the first stages of service development. Our results indicate that traditional knowledge sharing practices and governance modes may be difficult to apply in relation to service innovations, as the services are not easily protected and as the inherent need to use collaborative approach further limits the firms’ possibilities to use protection mechanisms and execute their rights. Some solutions can be found, however, and our findings suggest that service developing firms actually can use a variety of protection strategies.

Keeping in mind that safe knowledge sharing is what matters in service innovation the companies can approach knowledge protection by creating arrangements that resemble exclusive rights. Here contracts may be utilized effectively, like the companies participating FiMTV pursued to do: Where protection was not readily available, the parties agreed to keep quiet. Similarly, contracts were used to make sure that the devices and infrastructure were only used for certain purposes. Adjusting the rate of exclusivity, incorporating non-disclosure clauses where needed, and paying attention to contracting in general may improve the service innovators’ situation notably.

HRM is another area where effective barriers to imitation can be built. By making sure that certain people were committed to FiMTV, the personnel – an more importantly – the contact person turnover was minimized: With known participants the parties in FiMTV were able to talk more freely, and yet know which things were not supposed to be revealed in the meetings. The representatives can be both

⁴ Consider, e.g., the right to reproduce and distribute books based on some copyrighted text, and the book that can be freely resold or even destroyed, if the owner so wills

gatekeepers and receptors of new knowledge, and their position in their own firms is not trivial.

Furthermore, despite the obvious challenges, service innovators need to pay attention to IPR protection. Most typically IPRs become relevant when such service innovations are concerned that form hybrids with products⁵. However, also stand-alone services can be covered with IPRs – with trademarks in particular. By building a brand, the service innovator can gain a competitive position that is difficult to shake [42]. However, using the IPRs need to be approached carefully. Hipp and Grupp [26, p 521] note that “legal and professional regulation is at the core of many service industries”, and that this may have an effect on generation of service innovations. This surely covers more than just legislation on IPRs, but their role still cannot be dismissed, as was shown in the FiMTV case: Copyright issues, in particular, threatened to create barriers to creating services altogether.

Finally, it seems that lead time is going to be one of the most important protection mechanisms for service innovators. Basic ideas were quite openly discussed in the FiMTV case, but beyond getting the things started, the participants wanted to go ahead on their own. Time surely is of essence in this, since in an intangible area like service innovation, being the original innovator can really attract customers.

In sum, what is obvious is that service innovators cannot rely solely on the IPR portfolios and strategies, like their counterparts working around products might do, but they need to take a wider look around. The protection mechanisms that do not restrict knowledge sharing too much are often there, but they may be underutilized or unnoticed. Incorporating them into businesses may indeed be very central for the future of service innovations.

Our findings provide one approach to service innovation and a starting point for further qualitative and quantitative studies. As noted in the beginning, service innovations come in many forms, which makes their research challenging. Some ideas presented in this study are applicable more widely, but other fields of business with more stand-alone forms of service innovations, for example, should be studied in order to make sound generalizations.

6. References

⁵ Consider, e.g., the mobile equipment covered with patents and content covered with copyrights.

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