Acquisitions of innovative firms and their impact on customer access

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Abstract

Traditionally, the literature depicts acquisitions of technology or innovative firms as a means for the acquirer to obtain resources or knowledge. This paper challenges the traditional view. We take the perspective of an innovative firm to ask the question: In what ways does the acquirer affect the customer access for the target company? This question is addressed where the acquirer is a company within a mature industry, the target is an innovative firm, and when the target's customers at the same time are competitors to the acquirer. The discussion takes its point of departure in a literature review and a case study. The case study highlights issues of customer access in dimensions of ownership and integration; issues that are found to be missing in the reviewed literature. As this paper considers the situation from the target's perspective it contributes to the literature on acquisitions of innovative firms. Furthermore, it contributes to the innovation literature through highlighting the influence of ownership on an innovative company in the process of getting customer access.

Keywords: Acquisition, Innovation, Technology, Customer, Automotive

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Introduction

Within the literature on acquisitions of technology or innovative firms[2], two dominating theoretical tracks can be found: (i) organisation theory focusing on knowledge and knowledge transfer (and the related issue of employee retention), and (ii) a resource-based view describing acquisition as a means to attain new technology. Common to these two tracks is the perspective of the acquirer. The implication is that the target company is merely a source of knowledge or resources which benefit the acquirer. But what if the innovative firm is instead regarded as a company with a potential to attract customers of its own, rather than just as a provider of new knowledge or technology? In this paper we take the target's perspective in an acquisition of an innovative firm, asking: In what ways does the acquirer affect the customer access of the target company? The concept 'customer access' is fundamental for the discussion in this paper. By customer access we mean the ability to get in contact with and close business deals with customers. This consequently targets the early phases of a business relationship (see e.g. Ford 1980). The scenario described includes a situation where the acquirer is a competitor to (potential) customers of the target. Through taking our point of departure in the innovative firm, we reverse the arguments in e.g. Anderson, Havila and Salmi (2001) dealing with customer relationships as reason to merge or acquire. Instead of focusing on the transfer of customer relationships, we address the issue of *ownership* as a variable which affects both existing and potential customer relationships. M&As involve a transfer of ownership between companies (Capron 1999; World Investment Report 2000; Weston and Weaver 2001; the Swedish Taxation Act (Inkomstskattelag)), where one company achieves control over another (the Swedish Competition Act (Konkurrenslag); the Swedish Company Act (Aktiebolagslag)). Following an M&A, the target and acquirer may appear as more or less autonomous companies; Haspeslagh and Jemison (1991) distinguish between holding, preservation, symbiosis and absorption as different degrees of company integration. Still, even though the companies might be treated as autonomous business units, the legal connection and the control aspects persist.

The M&A literature normally adopts the perspective of the acquirer (or the merging parties), but to understand the issue of customer access, it is necessary to put the M&A in the broader perspective of relations in a company network. From a network perspective, M&As are described as imposing change on connected business relationships (Havila and Salmi 2000). The difficulties of transferring business relationships (Anderson, Havila and Salmi 2001) and the risk of losing e.g. customer relationships are referred to (see e.g. Salmi, Havila and Anderson 2001; Öberg 2004). In these cases, companies with existing customer relationships are used as the point of departure. For a young, innovative firm, the point of departure is instead how to create and develop a customer relationship to develop an innovative idea or technology from a phase of prototyping and testing to become implemented as a module in a mass-produced product. The focus in innovation literature has been on new firms with new technology which results in new products, not on new technology formed into modules which can enhance the performance of existing products (Utterback and Suarez 1993).

The chances of getting the product implemented may be related to how the target company is perceived in a network. Such perception, which can be either positive, i.e. attraction, or negative, i.e. repulsion, is referred to as *network identities* (Anderson, Håkansson and Johanson 1994). This concept has its foundation in how a firm is perceived by other parties following the firm's "unique set of connected relations with other firms, its links to their activities, and its ties with their resources" (Anderson, Håkansson and Johanson 1994, p. 11). If the concept of network identities is transferred to an M&A setting, it could be anticipated that the companies involved in an M&A influence each other, and other companies' perception of them. If seen from the target's perspective, these issues relate to how the acquirer affects how the target is perceived by others. The very acquisition means that a possible pre-acquisition relationship between the acquirer and target is replaced by bonds of ownership, whereas the activity links and resource ties would be connected to the degree of integration. Havila and Salmi (2002) e.g. points out how the reputation of an acquirer changes how other companies perceive the target, that is, the new ownership becomes a critical variable. Yet, with many companies resisting closer integration, partially to avoid disturbing relationships (Öberg 2004), it would be anticipated that the degree of integration is also related to changes in network identities. Preservation (Haspeslagh and Jemison 1991) would then be a means to minimise changes in the

[2] By 'innovative firm' we mean firms whose competitive advantage comes from their ability to produce innovative product solutions.

network identity. A description of the effects of the acquisition in network identity terms is a tool to evaluate the perception of the target company after the acquisition. The discussion in this paper concerns the owner's influence on the target company and the question is: Is the degree of integration or the legal ownership a determining factor for evaluating a potential supplier, i.e. when a company decides to become a customer? This question becomes critical in circumstances such as those presented in the case of Innovative Ltd.[3], where the new owner is a competitor to the potential customers.

The purpose of this paper *is to discuss in what ways the acquirer affects the customer access of a target company* where the acquirer is a company within a mature industry, the target is an innovative firm, and when the target's customers at the same time are competitors to the acquirer. The case study illustrates issues of customer access in dimensions of ownership and integration, thus highlighting areas that have been given limited attention in the literature. The approach taken in this paper adds to the literature on acquisitions of innovative firms from two aspects: (i) through taking the target's perspective, and (ii) through including the effect on the customer access.

Research design

In this paper, acquisitions of technology or innovative firms are approached through (i) a review of literature on acquisitions of technology or innovative firms, and (ii) a case study to discuss (some of) the critical aspects of in what ways an acquirer affects the customer access of a target company.

The articles for the literature review were chosen by searching the *Business Source Elite* database for journal articles for which "merger" or "acquisition" in combination with either "innovation" or "technology" were stated as key words. The initial search resulted in 97 articles published between June 1986 and January 2005. Following an initial review of the article abstracts, seven articles were excluded from further analysis as either of the terms "merger" and "acquisition" were used with other meanings than the one relevant to this paper[4,5]. Additionally 43 articles were excluded when it was noticed that they involved (i) M&A and technology as parallel tracks to give a general description of the development within a specific industry (15 articles), (ii) legislation issues and short notices treating M&A and technology separately (15 articles), (iii) integration of IT-systems and similar within conventional companies (13 articles). For our purpose it was essential that the literature dealt with M&As where at least one party was a technology or innovative firm. The excluded articles did not involve technology or innovative companies as either acquirer or target. Another eight articles on the financial performance of the acquisition were later excluded as the articles solely took the perspective of shareholders[6], a perspective not included in this study.

The remaining 39 articles represent literature from journals such as *International Journal of Technology Management, Journal of High-Technology Management Research, Journal of Management, Journal of Management Studies, McKinsey Quarterly*, and *Technology Analysis & Strategic Management*.[7]

In order to control the search result of our initial literature review, a second literature search was performed. This review was based on the literature review on M&As presented in Anderson, Havila

[3] Due to confidentiality, the case is kept anonymous in this paper.

[4] "Acquisition" was in some instances used when buying other things than companies. "Merger" was used as a metaphor in one article.

[5] As for "technology" and "innovation", the definition used in each article is applied.

[6] These articles dealt with changes in the market price of shares of the acquirer, see e.g. Kohers and Kohers (2004).

[7] In the above referred to journals, more than one article per journal was found for our review. Journals including only one articles included: *California Management Review, Entrepreneurship: Theory & Practice, Harvard Business Review, International Journal of Innovation Management, Journal of Business, Journal of General Management, Journal of Industrial Economics, Journal of International Business Studies, Journal of Management Development, Journal of Marketing, Organization Studies, R&D Management* and *Research Technology Management*.

and Holtström (2003)[8]. The abstracts of those five journals most frequently referring to M&As according to this review (*Academy of Management Journal* (29 M&A articles), *Journal of International Business Studies* (24 M&A articles), *Journal of Marketing* (34 M&A articles), *Organizational Dynamics* (14 M&A articles) and *Strategic Management Journal* (98 M&A articles)) were read as to see if the articles dealt with technology or innovative firms. This resulted in additional 13 articles. This implies that solely focusing on keywords may limit the search result too much. More important for the discussion in this paper is however that the articles found in the second literature search represented similar fields as did those found in the initial literature review; compared to an earlier literature review on M&As (Öberg 2004), the choice of sourcing (e.g. strategic alliances versus M&As), the transfer of knowledge and the retention of employees seem to prevail in the literature on M&As related to technology and innovation. The literature review provides some building blocks but also discovers some gaps which are relevant for the question on impact on customer access addressed in this paper.

The empirical data consists of a single case study. The reason for choosing the case study approach (Yin 1994; Eisenhardt 1989) was to enable finding new dimensions for how acquisitions of an innovative firm affect its possibility to gain customer access. Results from case studies in general, and single case studies in particular, are often criticized for not being generalisible (Johnston, Leach and Liu 1999; Larsson 1993). Our aim regards to highlight issues that have not been given much attention in previous research, and for that purpose, the single case study's capacity of generating new insights seemed suitable.

Co-author Jönsson collected the data through interviews with representatives of the innovative company (here named Innovative Ltd.) and with one collaborator and potential customer, Automotive Group. Automotive Group was a previous shareholder of Innovative Ltd. through a venture capital company, here named Automotive Group Venture Corp[9]. Innovative Ltd. was chosen because the firm was mentioned in an interview with an engineer at Automotive Group as an example of a supplier that did not supply physical modules but contributed to Automotive Group's development work. Interviews were conducted both before[10] and after the acquisition, making it a longitudinal case study. The interviews were informal with open-ended questions (Svenning 2000), focusing on the development of Innovative Ltd., its products, its relations to its owners, and the impact of the acquisitions on the customer access. Three interviews have been conducted with Innovative Ltd. Two before the acquisition: one with one of the founders, working in academia and as a consultant to Innovative Ltd., and one with the CFO of Innovative Ltd. The third interview was conducted with a second founder, who is also the CEO of Innovative Ltd. The interviews with Automotive Group were done before the interviews with Innovative Ltd. and have contributed to the general understanding of the industry and the roles of the incumbent firms. In total, seven interviews were conducted with Automotive Group. In addition to these interviews, an informal discussion was held with VentureCorpI, another venture capital company that owned shares in Innovative Ltd. prior to the acquisition.

Literature on acquisitions of innovative firms[11]

This section focuses on various aspects of acquisitions of innovative firms as reported on in the literature. The aim with the review is to synthesise some of the main issues highlighted in the literature on M&A in relation to innovation. The issues will be related to the findings found in the case and some gaps will be discussed. The literature reviewed could be divided into themes of *means to access new technology and innovations*, *integration including some typologies*, *capabilities and knowledge,* and

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[8] An updated version of Anderson, Havila and Holtström (2003) was used, including articles up to January 2005. This review include articles referring to merger, merge, acquisition, acquire or takeover in abstract, title or as keyword.

[9] Automotive Group Venture Corp. at time owned about 30 percent of the shares in Innovative Ltd.

[10] The pre-acquisition interviews were conducted for a study about the interaction between the innovative firm and the mature company regarding the innovation and aspects which affected the introduction of the innovation in the market. This study was presented in Jönsson and Grundström (2004).

[11] This section is based on a literature review of M&As of innovation or technology firms. For details about the review, see the "Research design" section. To put the literature review in a wider M&A perspective, some references are taken from a previously performed literature review on M&As (presented in Öberg 2004).

the related *employee dimension.* As our focus is on the ways the acquirer affects the customer access of a target company, the *customer dimension* will be discussed separately.

Means to access new technology and innovations

A major part of the literature on acquisitions of technology or innovative firms, deals with *the choice of sourcing; how to access new technology* and *innovations*. The focus is either on choices between internal development and acquisitions (Blonigen and Taylor 2000; Warner 2003; Nagarajan and Mitchell 1998), or between different types of co-operations (alliances, joint ventures) and M&As (Keil 2004; Ernst and Halevy 2004; Hagedoorn and Duysters 2002; Lengnick-Hall 1992; Moon 1998; Buckley and Casson 1996; Steensma and Corley 2000; Belderbos 2003; Folta 1998). The sourcing literature mainly targets two areas: (i) the choice of sourcing related to attributes of the companies involved (e.g. strategic and organisational fit, earlier experiences from alliances (Vanhaverbeke, Duysters and Noorderhaven 2002)), and (ii) predicting outcome related to different sourcing methods. It is e.g. pointed at that the R&D intensity is lower among acquiring companies (Blonigen and Taylor 2000; Hitt et al. 1991).

The different alternatives for external sourcing (JVs, alliances, M&As) could be seen as expressions of ownership; M&As would be the sourcing method involving ownership control, JVs involving partial ownership (see Bengtsson, Holmqvist and Larsson 1998). Sourcing is however merely treated in the same way as is integration (see next section); as an expression of closeness between target and acquirer. The closeness (i.e. higher degrees of ownership) is anticipated to negatively impact the innovativeness of the companies involved. Other aspects of ownership are largely disregarded in the literature, and how the target is perceived following ownership changes is not discussed in the reviewed literature.

Integration including some typologies

The literature on the *integration* of innovative firms is either normative (Bannert and Tschirky 2004; James, Georghiou and Metcalfe 1998; Slowinski et al. 2002) targeting a best practice, or describe knowledge transfer (Bresman, Birkinshaw and Nobel 1999), cultural (Mayo and Hadaway 1994) or based on employee issues (Chaudhuri and Tabrizi 1999; Ranft and Lord 2000). Different integration typologies are presented; Slowinski et al. (2002) refer to three levels of integration: (i) to replace the target's systems with those of the acquirer, (ii) keep some practices of the target, but integrate these practices with the acquirer's, and (iii) keep the target's practices as independent activities. James, Georghiou and Metcalfe (1998) present an alternative to Haspeslagh and Jemison's (1991) integration typology by distinguishing between conglomerates, autonomy, co-ordination and integration. In the case of conglomeration, financial pressure is put on the target to make the target increase its efficiency, but no actual integration is pursued. Autonomy focuses on the technological capabilities of the target company and, it is believed that minimum damage is done to the innovativeness of the target company through keeping the target as a separate unit. Co-ordination focuses on technological synergies, but also involves a simultaneous preservation of the distinct characteristics of both companies involved. Integration means taking the synergy issues further through integrating the companies' technological assets into one single business unit to reach efficiency gains. With synergies on one end of a scale, autonomy is believed to be the key to retaining employees (Ranft and Lord 2000; Keil 2004) and innovativeness:

> Successful acquirers usually base the actual level of integration on the type of capability being acquired: the greater the innovation, the less the integration
>
> Chaudhuri and Tabrizi 1999, p. 130

Lengnick-Hall (1992) similarly points out that integration may decrease the rate of innovation, partly explained by the fact that integration takes focus away from the day-to-day activities of the R&D units. James, Georghiou and Metcalfe (1998), and Bannert and Tschirky (2004) underline that integration requires changes by both the target and the acquirer, and Graebner (2004) discusses the role of managers in the integration process.

To sum up, this means that there are a number of ways to describe the degree of integration. Common to all seems to be the idea that in order for a successful integration both the acquirer and the target have to be involved. It is further suggested that the innovativeness of the target is constrained by higher degrees of integration. The customer dimension related to integration is largely disregarded in the literature. If we would elaborate on the customer access of the target company in terms of integration, the above implies that a low degree of integration would be positively related to long-term customer access; a low degree of integration fosters the innovativeness and continuous innovations would in turn be expected to attract new customers.

Capabilities and knowledge

As stated above, the degree of integration is related to knowledge (Chaudhuri and Tabrizi 1999). Knowledge can be understood in terms of capability (Prabhu, Chandy and Ellis 2005; Warner 2003; Keil 2004; Moon 1998) or in terms of existing products. This means that what is actually acquired might be a capability rather than an innovation. According to Ranft and Lord (2000) many acquisitions are performed to reach "knowledge-based technologies and capabilities from the acquired firms" (p.312). Keil (2004) and Hagedoorn and Duysters (2002) point out how acquisitions could be the breeding ground for internal capabilities, and Prabhu, Chandy and Ellis (2005) describe the importance of having internal knowledge (i.e. capability already within the organisation) in order to learn from the target, and stress the importance of complementarity (see e.g. Larsson 1990), both which are related to fit[12]. Similarly, Warner (2003) points at similarities in knowledge as a prerequisite for integration and deployment of knowledge. The term "absorptive capacity" is used to describe the impact of prior knowledge on an organisation's ability to learn from another (Warner 2003; Grundström 2000). Thus, if the acquirer has the right prior knowledge, this would indicate that a flow of knowledge or innovations from the target to the acquirer is possible. Keil (2004) suggests that autonomy is important for learning, whereas Ranft and Lord (2000) argue that a Catch 22 situation arises in the balance between autonomy and the transfer of knowledge and technology, and they question whether the resources of the acquired firm and the acquirer can be fully utilised if the two organisations remain fairly autonomous. Chaudhuri and Tabrizi (1999) are even more pessimistic about the long-term benefits of an acquisition as they state that "the target rarely adds much value beyond the first product launch" (p.123), this indicating that it would be possible to acquire existing products but not innovativeness.

This section clearly points out that a target should be kept autonomous if its innovative capabilities are to be retained. Less is known about the long-term benefits of the acquisition both for the acquirer and the target as regards knowledge transfer. What is known is that the difference in knowledge level between the acquirer and the target cannot be too large in order for the transfer to take place. Whether this autonomy is mainly an issue of control and closeness or also entails that the target builds its own customer relationships is not elaborated on in the literature.

The employee dimension

The employee dimension (Slowinski et al. 2002; Ranft and Lord 2000; Chaudhuri and Tabrizi 1999; James, Georghiou and Metcalfe 1998; Bannert and Tschirky 2004) could be considered as being especially critical when it comes to innovative firms. The employee dimension is related to knowledge management (Slowinski et al. 2002; Ranft and Lord 2000; Bresman, Birkinshaw and Nobel 1999); both in dimensions of tacit knowledge connected to losing staff, and the risk of staff starting to act disloyally.

> If the assets walk out the door every evening, the acquirer had better make sure that they want to come back the next morning.
>
> Inkpen, Sundaram and Rockwood 2000, p.53

Chaudhuri and Tabrizi (1999) stress the rare success of hostile take-overs, as these normally result in the fact that the key employees become alienated from the acquirer. According to Kennedy, Payne and Whitehead (2002) 50 percent of the acquisitions of technology firms fail; cultural differences and

[12] Similarities in size if often used as a variable to describe organisational fit (Hagedoorn and Duysters 2002). In the literature it is stated that the greater the dissimilarities in size, the more difficult it is to reach success, and with a smaller target, less attention will be paid to the target (Kennedy, Payne and Whitehead 2002) and the less is the probability that the target will be kept autonomous (Ranft and Lord 2000).

key employee losses explain these failures. The degree of autonomy, the status of the acquired company as part of the merged organisation, and the commitment to the acquisition are all positively related to employee retention, while financial incentives are not (Ranft and Lord 2000).

The main finding here concerning innovative firms is that the more autonomous they remain after an acquisition, the more likely it is that they retain their employees, i.e. their knowledge and ability to produce product innovations. The employee dimension could largely be seen as an intra-company dimension of an M&A. Although employees could be regarded as carriers of customer relationships, the literature mainly stresses them as carriers of knowledge/capabilities related to innovations.

The customer dimension

The focus in the literature on the acquisition of technology or innovative firms mainly targets issues related to the companies involved, as described above – the choice of sourcing, integration, employees and knowledge. The embeddedness (Granovetter 1985) of these companies is however acknowledged in some instances. Slowinski et al. (2002), refer to the fact that each firm in an acquisition is likely to be involved in a number of relationships involving technology, collaborative research projects, licensing agreements and the like. Such relationships stretch across organisational borders, resulting in knowledge becoming embedded in relationships in and between companies (Ranft and Lord 2000; Vanhaverbeke, Duysters and Noorderhaven 2002). This literature does not however explicitly include customers, whereas research with a network approach includes customers in such relations (see e.g. Hammarkvist, Håkansson and Mattsson 1982).

In those instances where customer aspects are explicitly referred to in the literature on acquisitions of technology or innovative firms, this is done in very general terms (see Balsinde and Beardsley 1999; Chappuis, Frick and Roche 2004). Balsinde and Beardsley (1999) refer to how integration takes focus away from customers. Central in the arguments of Chappuis, Frick and Roche (2004) are issues of control, dominance and the creation of entry barriers against competitors. Lengnick-Hall (1992) refers to innovation in connection to the market, where either the customer pulls technology or technology pushes (customer) demand. Customers are further referred to as an M&A motive, but in these circumstances, the acquirer is the innovative party (Inkpen, Sundaram and Rockwood 2000; Hagedoorn and Duysters 2002).

Customers seem to be given somewhat more attention in the literature on acquisitions of innovative firms than in general M&A literature (see Anderson, Havila and Holtström 2003). However, the focus lies on the acquirer's customers, and this focus is mainly related to innovation aspects, rather than M&A considerations. The literature seems to frequently treat M&A as a tool for *preventing competitors* (see e.g. *blocking strategies* (Werther and Berman 1994)) or *controlling customer*. Another tendency is to focus on treating customers as a means to enhance the innovative capability of the acquirer. If the target is the innovative party in the acquisition and not the acquirer, nothing can be found in the articles reviewed about the target's customer access after an acquisition.

The literature review – summing up

In the literature on acquisitions of innovative firms, four themes are dominating: *M&As as a means to access new technology and innovations*, *integration including some typologies*, *capabilities and knowledge,* and the related *employee dimension.* A majority of the publications are built on quantitative cause-and-effect analyses. It is mainly believed that the degree of innovativeness increases with lower degrees of integration. Equally so, it is pointed at how employee retention is easier accomplished if the companies are not closely integrated. Thirdly, capabilities and knowledge are positively related to employee retention. An integration paradox could however be revealed as the lower the degree of integration, the more difficult it is to achieve knowledge transfer between the companies. The acquirer's perspective prevails and the target is mainly referred to indirectly. Customer relationships are seldom the focus, and when customers are referred to, the focus is on the acquirer and on how control or additional customers could be acquired.

In the next section a case study focusing on a target company and its ability to gain customer access is described. For this case study issues concerning ownership and integration are relevant. The reviewed literature gave some insights into integration related issues (including employee retention and knowledge), and the sourcing literature could partly be regarded as describing the ownership dimension. The impact on innovativeness could be seen as a main concern in the literature, whereas customer access of the target company is not described. Despite that autonomy is recognised as important for innovativeness the literature seems to continuously view the target as a source of technology and innovations to benefit the acquirer. Our aim is to highlight in what ways the acquirer affects the customer access of a target company where the acquirer is a company within a mature industry, the target is an innovative firm, and when the target's customers at the same time are competitors to the acquirer.

The case of Innovative Ltd.[13]

Company background

Innovative Ltd., a software developing company, operates in the automotive industry and was founded in 2001 as a spin-off company from Parent Innovative Ltd., where it had been a business unit. The company is based on two patents developed mainly by one of the founders of Innovative Ltd. The first development of this patent took place in Parent Innovative Ltd. before the spin-off. Both Innovative Ltd. and its parent company (founded in 1985) can be described as innovative firms. Innovative Ltd. has its origin in both the academic world and the automotive industry. Therefore, since the founders of Innovative Ltd. had their background closely connected to the automotive industry it was a natural decision to approach that particular industry.

For a while after the spin-off, Innovative Ltd. remained partly owned by Parent Innovative Ltd. with two of the founders of Innovative Ltd. becoming joint owners. Automotive Group Venture Corp. (AGVC), previously involved in Parent Innovative Ltd., contributed money for product development shortly after Innovative Ltd. was founded. This led to AGVC also acquiring a holding of shares in the company (see figure 1). AGVC is a venture capital company wholly owned by Automotive Group.

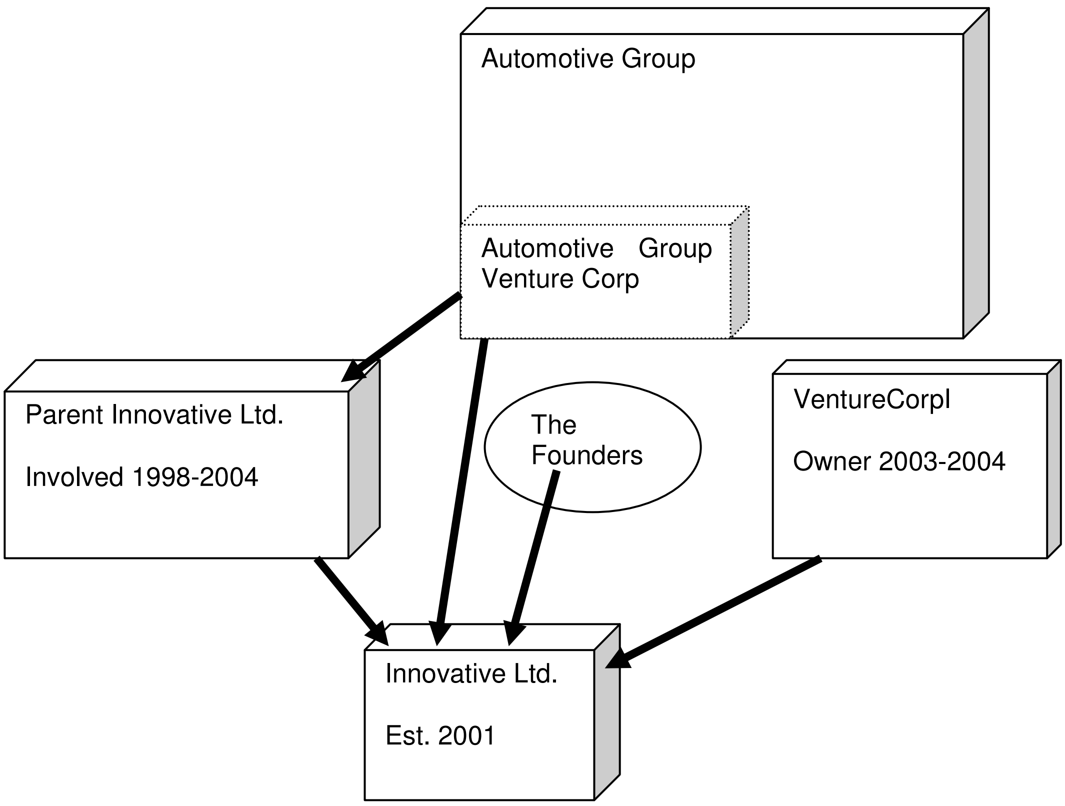

Figure 1: *Ownership linkages before the acquisition*

[13] The description in the following sections is built on interviews, meaning that the description states how the industry is referred to from the perspective of the interviewees (i.e. their personal opinion). All quotations stem from interviews within Innovative Ltd.

The Parent Innovative Ltd. had its core focus on electronic solutions and both founders of Innovative Ltd. were engaged in R&D activities with Parent Innovative Ltd. Several development projects were made in close co-operation with Automotive Group. and this car manufacturer subsequently came to acquire shares in the Parent Innovative Ltd. In 1999, The ownership came to AGVC.

The context: A mature industry in transition

As Innovative Ltd. entered the automotive industry, the industry had undergone changes during the past few years, both related to M&As and to technology. Several car manufacturers have merged their businesses, while at the same time the car manufacturers' suppliers have grown larger in size. This development coincides with a technological shift from mechanics to electronics within the automotive industry, which has required a shift in the skills required by employees within the car manufacturing companies:

> 80-90 percent of their employees have a mechanical background. But already today, electronics account for one third to 40 percent of the value of the car. The software is almost five to ten percent. And if you calculate it that way, 40 percent of the engineers should be within electronics. But this is not the case. It will take them ten years to adjust. That is why they [the car manufacturers] have been forced to outsource much of this development to their suppliers. And they themselves are only integrators. They are only project managers. So they say: "We develop a new car". But they are not. They are in charge of the time table and allocate money to others, who do the job. And this has in turn resulted in that suppliers have grown and become very dominating.
>
> The founder and CEO of Innovative Ltd.

With a slow pace of adjustment, and a focus on decreasing the number of suppliers, system solutions have become increasingly important. To counteract this, car manufacturers now try to modularise and divide system solutions into separable parts. When it comes to technology development, new inventions are most frequently introduced in the premium segment as these cars normally can take the development cost and have end consumers with high expectations on product performance. Another aspect is that the number of cars produced in the premium segment is relatively low, resulting in a much lower cost (compared to the volume segment) in case of retrofit due to technology failure.

As Innovative Ltd. develops software solutions, which need to be fitted in with the hardware provided by mainly the large suppliers they are dependent on the suppliers and on how their hardware solutions are designed.

Searching for customers, finding an acquirer

When trying to find potential customers, Innovative Ltd. was well aware of the importance of personal relationships and finding the right ownership.

> It is entirely impossible to come in as a new actor [in the automotive industry]. It is all about having very good contacts. And if you have the right owners, your odds are stronger.
>
> The founder and CEO of Innovative Ltd.

In the search for potential customers, Innovative Ltd. used several old contacts but a critical new contact was a consultant with long experience from the automotive industry. Thanks to him, Innovative Ltd. was invited to Vehicle Group to make a presentation in country T for a specific car manufacturer. As a result of this presentation, where Innovative Ltd. could talk about a previous project with this car manufacturer, Innovative Ltd. was invited to visit the club for companies in country T's automotive industry. There Innovative Ltd. was seen as a very odd bird, but thanks to having people with the right background (academic and experience) and an interesting solution, Innovation Ltd. got the attention it needed.

> We went there and these customers, that we still have a good relationship with, Company B, Company M, they thought this was a very exiting company and technology. [---] So we have mostly turned to auto manufacturers, but also sub-contractors. But then I think that our academic background and our expertise, well, I have marketed the company as an expert company. We have PhDs in signal treatment. And that is what we are working on; we have a professor here who is one of the best in this area.
>
> The founder and CEO of Innovative Ltd.

However, creating an interest in the company and the technology Innovative Ltd. was developing was not sufficient. As a small company it was not seen as trustworthy due to a lack of financial resources. Companies developing similar applications to Innovative Ltd. but based on alternative, less cost-effective technology maintained a reluctant attitude and claimed they were already working on the technology.

> Then it is the next step; to make real deals; to grow and to create those stable relationships. And there we are still back where we started. This because we are not trustworthy, and then there is the ownership they are looking at. The size of the company "Oh, you have all that technology, but you are too small. Who owns you? How much money do they have? Are you a market player today?" And the car manufacturers say like this: "Well, we do not manufacture these kinds of systems, our suppliers do; the large suppliers. So you will have to go to them and then come back to us." And then we go to them and they say: "We are better, we already know these things." And then we say: "Why have you then not already developed it?", And the answer: "Well, because it is not invented here." You need to have an owner putting pressure on the suppliers.
>
> The founder and CEO of Innovative Ltd.

After the initial relationship building with various companies in the automotive industry, both car manufacturers and their main suppliers, the company Car Corp. became interested in Innovative Ltd.'s product concepts. Some different prototype projects were conducted for Car Corp. In 2003, Innovative Ltd. was owned by AGVC and a second venture capitalist (VentureCorpI) had just become a shareholder. The intention of the venture capitalists was to sell the company within a period of a few years. Parallel discussions were held with several companies, and somewhat surprisingly, Car Corp. declared its interest. It wanted to acquire a shareholding in Innovative Ltd. but with full control over the company, two requirements which were not accepted:

> And in the middle of this, Car Corp. turned up. Car Corp. is a customer. They declared openly, spot-on: "We want to buy a share of the company". They did not want to acquire the entire company, only buy a share of it. But their demands were different; they wanted control from the beginning. These were their conditions. And that type of control comes at a price.
>
> The founder and CEO of Innovative Ltd.

Car Corp. was made aware of that its initial terms were not acceptable in view of AGVC's terms of operation. This led to Car VentureCorp (CVC), a company within the Car Corp Group. at the year-end of 2003 acquiring the shares hold by VentureCorpI and AGVC. The two founders however stayed on as minority owners (see figure 2). Through the issue of additional shares, CVC today owns more than 90 percent of Innovative Ltd, and the two founders hold the rest.

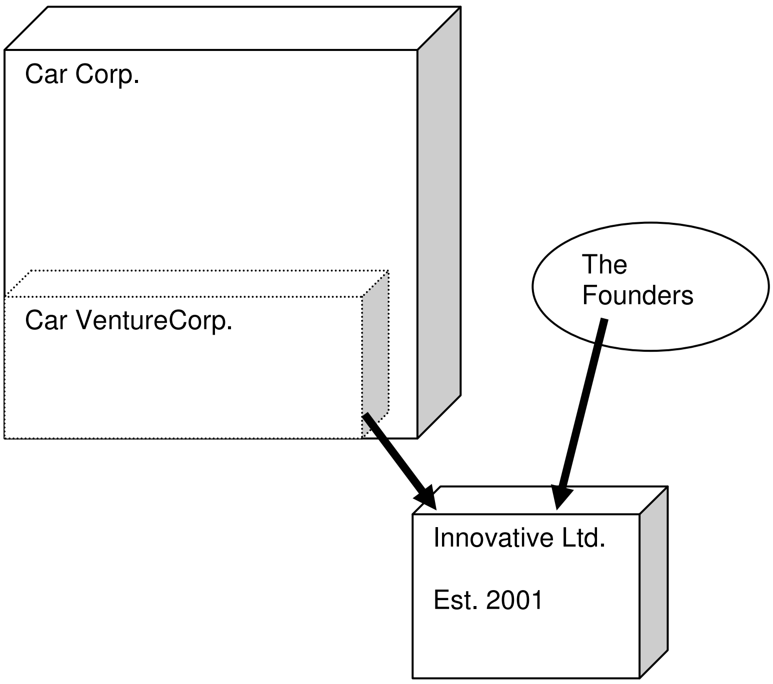

Figure 2: *Ownership linkages after the acquisition*

Effects of the acquisition in general

When Car VentureCorp. acquired Innovative Ltd., a new board was appointed. It was headed by a person from Car Corp. who had little experience of managing young, small and innovative firms. There were some compromises made as regards the amount of administrative tasks that Car VentureCorp would put on Innovative Ltd.

> This is a new situation for all parties. And the first year has been a year in both joy and sorrow. We do not understand one another. It could be on a personal level. After all, all those at the board but me […] they are from Car Corp.; they are from another country, have a different worldview. And I am the only entrepreneur. Conflicts are a natural ingredient; and then there is the confusion of languages. But, it has also been a fundamental strength to discuss new strategies with them; if we know that they are interested, other car manufacturers are probably also interested.
>
> The founder and CEO of Innovative Ltd.

Innovative Ltd. and Car Corp. (as parent to the actual owner) are thus slowly getting to know each other. Described in terms of acquisition of capabilities and existing products, Car Corp

> … acquired three things; the technology, the competence to develop other products and revenue, revenue from other customers.
>
> The founder and CEO of Innovative Ltd.

Their focus on capabilities distinguished Car Corp from Innovative Ltd's previous owners, which had had more of a pure venture capital approach:

> "We invest venture capital, and now we want to see a hit, a success. Then will the shareholder value of the company rise and we will exit and everyone is happy." This is partly in conflict with what Car Corp says; "Build with long-term focus."
>
> The founder and CEO of Innovative Ltd.

Two years after the acquisition the company is still an autonomous unit within the Car Corp. Group. Some development tools have been transferred from Innovative Ltd. to Car Corp., indicating a partial transfer of knowledge from the target to the acquirer. The two founders still own part of the company but do not have any real influence. The fact that they still keep a minority share is described by VentureCorpI as a requirement by Car Corp. This minority interest is said to benefit an interest in the long-term well-being of Innovative Ltd. The decision making is however in the hands of Car Corp.:

> They can set the agenda. It turned out that their strategic goal was to get this technology into their cars. That is what is most important. It is not in line with the other two's [AGVC and VentureCorpI] interests that were more short-term. [---] And the ownership that we have [the founders] is of none importance. We see it as if Car Corp. owns the whole company. We have no influence, neither in practise nor on paper, since we have so small ownership shares. And in practise, it is they [Car Corp.] that have all the power.
>
> The founder and CEO of Innovative Ltd.

If discussing the effects of the acquisition in terms of issues from the literature section, the following can be stated: The initial intentions of Car Corp. was not to acquire the majority of shares in Innovative Ltd. Other means to reach the control over the company was discussed, but rejected. In terms of integration, various control tools (especially regarding financial control) have been imposed. Yet, when it comes to development and discussion with potential customers (read more beneath), Innovative Ltd. seems to have been given more or less free hands. Car VentureCorp urges Innovative Ltd. to do business with other companies. To realise this, the solution seems to be to keep Innovative Ltd. as a separate unit. These ideas are similar to Slowinski et al.'s (2002) "keep the target's practices as independent activities" and to James, Georghiou and Metcalfe (1998) "autonomy". In terms of James, Georghiou and Metcalfe (1998) "autonomy", keeping Innovative Ltd. as a separate unit, would have been chosen in order to foster the innovativeness of the company. In the case of Innovative Ltd. the revenue aspects are however stressed, and this resembles the "conglomerate" mode of integration, where financial pressure is put on the target company.

The M&A literature states that an innovative company needs to remain as a separate unit in order to remain innovative. This corresponds well with the findings made in the case of Innovative Ltd. By remaining separate, Innovative Ltd. has been able to further develop its product concepts not only in projects with its acquirer but also with other partners. Research conducted so far has presented little information about the long-term benefits for both the acquirer and the target as regards knowledge transfer, but what is known is that the gap in knowledge between the acquirer and the target should not be too big. What can be seen in this case is that the acquirer has found the development tools used by Innovative Ltd. useful and these have been transferred to Car Corp. This implies that Car Corp – with the intention to remain a lead developer – has sufficient knowledge to use the knowledge provided by the innovative firm Innovative Ltd.

The theory on M&As and employees mainly concerns the need for knowledge intensive companies to remain autonomous if they are to keep their employees, i.e. their knowledge. Innovative Ltd. does not talk about a change in personnel turnover or loss of key personnel after the acquisition. It seems to be vital for the knowledge development within the company that one of the founders is still engaged through research and student involvement (i.e. links to academia). Thus, the findings in this case are not different from those made in similar contexts. The minority shares held by the two founders, as required by Car Corp., could further be seen as an attempt by Car Corp. to keep key personnel.

Effects of the acquisition on customer relations

From the beginning, CVC has urged Innovative Ltd. to continue do business with others as the long-term goal is to explore the technology potential and provide financial returns to its owner.

> It has largely been unchanged or slightly positive that we got Car Corp. as owner. […] First, Car Corp. wants us to continue doing business with others. They did not acquire the company to lock us in. Contrary, they wanted to strengthen us and wanted us to continue doing businesses. That was a good message to bring along. It is crystal clear.
>
> They do not encourage, they demand us to do business with others.
>
> See the opportunity in this product and see the opportunity to other revenues. That is good. At least so we can carry our own costs. And so that we can develop new products both for Car Corp. and other companies; Car Corp. may also place development project with us […]. Car VentureCorp. has such a task. To try to make other businesses, this is why we are autonomous. Otherwise they would have made us part of a department. So we must push and have other customers, otherwise there is no motive to keep us as an autonomous company.
>
> The founder and CEO of Innovative Ltd.

Parallel acquisition discussions were held with some suppliers to the automotive industry. Some of these invested money in Innovative Ltd. When Innovative Ltd. was acquired by Car Corp. these companies partly lost their interest. In light of the imbalance in power between the car manufacturers and their suppliers, according to Innovative Ltd. it is not likely that Car Corp. would initiate any close collaboration projects with these companies. From the suppliers' perspective, Innovative Ltd. became a competitor. It is in the interest of the large suppliers to try to exclude new competitors.

> To be owned by Car Corp. has both positive and negative effects. It is positive to have a strong owner, which means that the customers feel secure and know that the company [Innovative Ltd.] will exist for the whole product lifetime. But then of course, the fact that we are owned by Car Corp. can mean that some customers choose a different system. This since they are competitors and do not want to have any involvement with Car Corp.
>
> And the other customers that showed interest in us, thought that we had an interesting technology, but always greatly questioned us as a small company, from a peripheral country: "Will they even be around next year?" With Car Corp. entering, they [Car Corp.] did not enter for this to exist for only a year. We suddenly got such credibility. A fundamental credibility. "Yes, now they will be around." So one question mark was taken away, but still there are question marks about technology, business models, the value chain and all such things; the whole product since we do not have any hardware. But, we have come quite a bit closer to a buying decision. Then yet again, there are companies that do not like Car Corp.; that do not like the new ownership construction at all and therefore have chosen to play a waiting game. For instance, a couple of these large suppliers that we held parallel discussions with in 2003; these suppliers also invested time and money in preparing their ownership entrance into the company. And suddenly that door is shut. In practise, it is a shut door because it is not likely that Car Corp. would let them in.
>
> The founder and CEO of Innovative Ltd.

Even though Innovative Ltd. is in a different financial position with Car Corp. as owner, in the eyes of some customers, Innovative Ltd. has lost part of its innovative aura and is seen as an established company, as one actor among many, which more or less is to be judged on price competitiveness. In addition, the long-term interest in Innovative Ltd. on the part of Car Corp. must be proven in order for the necessary trust to be established.

> But some customers have said: “We will see what happens. Come back later on. Then we will see how things have turned out.”
>
> I have two examples: We have had other car manufacturers besides Car Corp. that have liked us and our ideas: “We can give you a small pre-development project with a budget for you to work with, and if this turns out well, then we can discuss it and get going.” They do not want to give us that kind of money anymore, because then they are in practice financing Car Corp.’s pre-development projects. “That we will never do”. So the short-term revenues have decreased. And our relation to these customers is of a different nature now. They see us more as one of the established suppliers: ”When you are ready with Car Corp., then we will look at it, and then it is more about what performance you have reached with Car Corp., your lead-development partner, and what offer will be given to us? Has Car Corp. for instance developed something that we can use as well, and what is the cost?” So you are not this team of engineers with fun ideas anymore. You are an established actor and are compared with other established actors. As long as you are free, you can offer more, but we are not free anymore.
>
> They say: ”Good for you. We will continue to look at your products and judge them commercially: If your offer is interesting, we will buy from you, otherwise we will not. Then they will, as when you do business with small companies, look more into the company background; “Will you be around? Will there be problems further on? Will Car Corp. restrict you to not be able to do business with these other companies?” These are things that they may be looking at. We do get some comments of that kind: “So now you are with Car Corp, then you will not be allowed to do business with others.” “Yes we will”. “Alright, but you will not have the time for it.”
>
> The founder and CEO of Innovative Ltd.

As well as having the financial backing and the long-term interest from Car Corp for Innovative Ltd., Innovative Ltd. is fully aware of the need to continuously up-date key personnel on the communication and decision structure at various car manufacturers and suppliers.

> Without having personnel with experience from the industry, who also have insight in what the customers’ organisations look like, it is impossible. We must have control over who is responsible for what, and what mandate that person has, i.e. up to which price he can take decisions or if he has to turn to someone higher up in the organisation. This is not a static picture; people change jobs and move within these hierarchies. So we must keep up-to-date with our network of contacts [---] These people are impossible to get in touch with if you do not know them.
>
> The CFO of Innovative Ltd.

Whereas the general effects of the acquisition (discussed in the previous section) targets some of the main themes also found in the M&A literature on innovative firms, the customer dimension clearly addresses several “new” issues. The literature related to customers mainly focused on control. Control aspects do become evident also in the case of Innovative Ltd; by acquiring Innovative Ltd. Car VentureCorp. – a first tier to Car Corp. - *avoided becoming a customer*. By owning Innovative Ltd., the ability to control the activities within Innovative Ltd. became bigger than in a traditional contract situation. This implies that Car VentureCorp considered the technologies developed by Innovative Ltd. as being strategic for its future products/business.

Beyond this, and as the case focuses on a target company who is required to find external customers, the case points at the importance of ownership to get customer access. Whereas the autonomy (as degree of integration) could be seen as a tool to more easily sell to customers outside the Car Corp. Group, the customers seem very clear about who owns Innovative Ltd. The ownership dimension related to the customer access could be described both in terms of *attracting* and *repulsing* customers (see “Introduction” about network identity). Although no major changes in terms of customer access have been seen in the case of Innovative Ltd., there are several indicators which indicate a different *perception* of the company. The positive changes relate to the fact that the new owner “guarantees” a long-term survival of the acquired innovative company; a small, innovative company needs a strong owner in order to have sufficient credibility to become a supplier. Even though various companies (car manufacturers, suppliers) believed in the technology, the sheer small size of the company and its lack of a strong owner impeded any further negotiations in order to reach business deals. Prior to the acquisition, the company was continuously faced with issues concerning its long-term survival. Furthermore, it is suggested that an owner within the industry could function as a gatekeeper for the innovative firm. Since the innovative company in the case was dependent on hardware for implementing its innovation a strong negotiation partner was needed in the interplay with the suppliers.

The negative changes in the perception of Innovative Ltd relate to competition, but perhaps even more so, to certain actors who were previously involved in development projects with Innovative Ltd. In this latter instance, the changed perception is not as much related to the owner, but more to activities related to the acquisition.

For Innovative Ltd. the major shift in network identity could be described in terms of the company's "transformation" from being an innovative company with a certain technical expertise, to becoming an "established" actor in the field. With this comes the possible changes in customer access referred to previously; customers regard Innovative Ltd. as now having the financial resources to develop, but they are also waiting for Innovative Ltd. to develop its product in co-operation with Car Corp., rather than supporting joint development with Innovative Ltd.

Concluding discussion

This paper focused on in what ways the acquirer affects the customer access of a target company. Whereas the literature on acquisitions of innovative firms mainly focuses on the companies involved, from the acquirer's perspective, our study took the target's perspective. The case study pointed at the importance of ownership as an indicator for long-term survival. At the same time, the ownership may be critical if the new owner is perceived as a competitor to potential customers, and/or if the acquisition as such challenges previous relationships. In the literature, ownership could only be understood in terms of different degrees of ownership involvement (JVs, alliances, M&As). Taking the target's perspective however reveals that ownership also needs to be discussed in terms of how it affects the perception of the company. It becomes a question about *being owned, by whom and how the owner relates* to potential customers. If we summarise the customer access aspects of the case, the following can be proposed:

- ***Whereas the autonomy (as degree of integration) may positively impact the long-term customer access of the acquired innovative company, the ownership as such directly impacts how the target is perceived.*** The literature shows how keeping the target autonomous positively impacts the innovativeness, knowledge creation and employee retention of the target. Through resisting integration, the innovativeness of the target is kept as a vital force. In a long-term perspective, this would have a potentially positive impact on the target and the target's market success. Through facilitating the development of new products, which according to the literature is done through keeping the target autonomous, the target is expected to develop more innovations. This in turn could be expected to positively impact customer access, through the attractiveness of innovation. In the short-term perspective, the ownership will however directly impact how the target is perceived. This perception will affect the customer access both positively and negatively (see beneath).

- ***If the acquirer is perceived as guaranteeing long-term survival and the acquirer's interest is perceived as being long-term, this will have a positive effect on the customer access of the acquired innovative firm.*** The long-term survival is stressed in the evaluation of a supplier. The case study indicates that customers are reluctant to become involved in relationships unless the survival of the business partner is assured. A strong acquirer plays a critical role in this. Questions however emerge about what the acquirer will do with the target; whether the target will still be able to serve external customers. The longevity could further be expected to foster the innovativeness of the target; the long-term commitment towards the target could be an indication of the acquisition being an acquisition of capabilities rather than of existing products. With new innovations being developed to attract customers, the long-term perspective also introduces ideas of customer access stemming from future innovations.

- ***An acquirer aiming to continue to be a lead developer and that applies systematic learning about the acquired technology through acting as a customer has a positive effect on the acquired innovative company's customer access****.* The importance of strategic fit is stressed in the literature. This is connected to the acquirer's capability to learn from the target, but also to not negatively impact the target company. Through a mutual understanding of the technology, the knowledge transfer can be reciprocal. Our case study indicates that through discussing on-going projects with representatives of the new owner, the target simultaneously receives customer feed-back. The importance of the double role played by the acquirer – as owner and as customer – consequently fosters the testing of commerciality of innovations.

- ***The acquisition may negatively impact previous relationships and customer access of the acquired innovative company if there is a conflict of interest.*** The case study indicates that the relationships between the target and previous collaboration partners changed following the acquisition. The acquirer was considered as a competitor leading to that previous collaboration partners became reluctant to provide money to a company belonging to a competitor. Furthermore, as some of these collaboration partners were interested in acquiring the company, the acquisition as such negatively impacted the relationship.

Managerial implications

Treating the target as a separate business unit and allowing the target to have direct contact with customers, would ideally increase the innovativeness of the target. By selling to others, the target would be likely to be exposed to other requirements requiring other knowledge and skills than if they only sold to the acquirer. In the long term this would likely benefit the acquirer as the target is building up a larger knowledge base which in turn may come to benefit the acquirer. This means challenging the view of the target as only being a source of resources and highlights issues about how to treat the target to maximise gains.

Our case study points at how ownership may impact customer access even though the target is kept as an autonomous business unit. With many integration issues being discussed first after the acquisition deal is done (see Kelly, Cook and Spitzer 2003), this stresses the importance of thoroughly evaluating combination effects prior to an acquisition. The value of the positive or negative impact of the acquirer on the target should (ideally) be considered in the acquisition bidding. This also means that changes in network identity should be considered in synergy calculations.

Further research

Even though almost two years have passed since the acquisition, it is still too early to judge what the long-term effects of the acquisition will be on Innovative Ltd.'s customer access. The discussing in this paper becomes highly tentative. To further highlight the impact of ownership on customer access, additional studies are needed; including following the company for a longer time period, customer contacts, or studies of other cases. In a wider perspective, the study of Innovative Ltd raises issues of further interest:

- The impact of ownership on a company's network identity. This case highlighted the criticality of being owned by a competitor to potential customers, but how else does ownership impact how a company is perceived? Which borders are set between companies due to ownership aspects?

- Customers in the literature on acquisitions of innovative firms. The literature review indicated that when considered, customers are mainly discussed in terms of control from the acquirer's perspective. Through taking the target's perspective, other issues related to customers become relevant. For further research comparing e.g. outcomes of acquisitions where the target is treated as a source of technology to benefit the acquirer with acquisitions as the one described in our case would be of interest: Which are the opportunities and risks with allowing external customers? How is the innovativeness affected? How is the benefit of the acquisition from the acquirer's perspective affected? And from the target's?

References

Aktiebolagslag SFS 1975:1385, www.riksdagen.se.

Anderson, H., V. Havila and J. Holtström (2003). Are Customers and Suppliers Part(icipants) of a Merger or an Acquisition? - A Literature Review. 19th Annual IMP Conference, Lugano, Switzerland.

Anderson, H., V. Havila and A. Salmi (2001). "Can You Buy a Business Relationship? - On the importance of customer and supplier relationships in acquisitions." *Industrial Marketing Management* 30(7): 575-586.

Anderson, J. C., H. Håkansson and J. Johanson (1994). "Dyadic business relationships within a business network context." *Journal of Marketing* 58: 1-15.

Balsinde, R. and S. Beardsley (1999). "Dial "M" for merger." *McKinsey Quartely* 3: 131-134.

Bannert, V. and H. Tschirky (2004). "Integration planning for technology intensive acquisitions." *R&D Management* 34(5): 481-494.

Belderbos, R. (2003). "Entry mode, organizational learning, and R&D in foreign affiliates: Evidence from Japanese firms." *Strategic Management Journal* 24(3): 235-259.

Bengtsson, L., M. Holmqvist and R. Larsson (1998). *Strategiska allianser - från marknadsmisslyckande till lärande samarbete*. Malmö, Liber Ekonomi.

Blonigen, B. A. and C. T. Taylor (2000). "R&D intensity and acquisitions in high-technology industries: Evidence from the US electronic and electrical equipment industries." *The Journal of Industrial Economics* 48(1): 48-70.

Bresman, H., J. Birkinshaw and R. Nobel (1999). "Knowledge transfer in international acquisitions." *Journal of international business studies* 30(3): 439-462.

Buckley, P. J. and M. Casson (1996). "An economic model of international joint venture strategy." *Journal of international business studies* 27(5): 849-877.

Capron, L. (1999). "The long-term performance of horizontal acquisitions." *Strategic Management Journal* 20(11): 987-1018.

Chappuis, B. E., K. A. Frick and P. J. Roche (2004). "High-tech mergers take shape." *McKinsey Quartely* (1): 60-71.

Chaudhuri, S. and B. Tabrizi (1999). "Capturing the real value in high-tech acquisitions." *Harvard Business Review* 77(5): 123-130.

Eisenhardt, K. M. (1989). "Building theories from case study research." *Academy of Management Review* 14(4): 532-550.

Ernst, D. and T. Halevy (2004). "Not by M&A alone." *McKinsey Quartely* (1): 68-69.

Folta, T. B. (1998). "Governance and uncertainty: The tradeoff between administrative control and commitment." *Strategic Management Journal* 19(11): 1007-1028.

Ford, D. (1980). "The Development of Buyer-Seller Relationships in Industrial Markets." *European Journal of Marketing* 14(5/6): 339-354.

Graebner, M. E. (2004). "Momentum and serpendipity: How acquired leaders create value in the integration of technology firms." *Strategic Management Journal* 25(8/9): 751-777.

Granovetter, M. (1985). "Economic action and social structure: the problem of embeddedness." 91(3): 481-510.

Grundström, C. (2000). The Many Faces of Standards and Phases of Standardisation in Product Development. Linköping Studies in Science and Technology. Linköping, Linköping University.

Hagedoorn, J. and G. Duysters (2002). "The effect of mergers and acquisitions on the technological performance of companies in a high-tech environment." *Technology Analysis & Strategic Management* 14(1): 67-85.

Hagedoorn, J. and G. Duysters (2002). "External sources of innovative capabilities: The preference for strategic alliances or mergers and acquisitions." *Journal of Management Studies* 39(2): 167-188.

Hammarkvist, K.-O., H. Håkansson and L.-G. Mattsson (1982). *Marknadsföring för konkurrenskraft*. Malmö, Liber.

Haspeslagh, P. C. and D. B. Jemison (1991). *Managing acquisitions: Creating value through corporate renewal*. New York, Free Press.

Havila, V. and A. Salmi (2000). "Spread of change in business networks: an empirical study of mergers and acquisitions in the graphic industry." *Journal of Strategic Marketing* 8(2): 105-119.

Havila, V. and A. Salmi (2002). Network Perspective on International Mergers and Acquisitions: What More Do We See? *Critical Perspectives on Internationalisation*. Havila, Forsgren and Håkansson. Oxford, Pergamon.

Hitt, M. A., et al. (1991). "Effects of acquisitions on R&D inputs and outputs." *Academy of Management Journal* 34(3): 693-706.

Inkomstskattelag SFS 1999:1229, www.riksdagen.se.

Inkpen, A. C., A. K. Sundaram and K. Rockwood (2000). "Cross-border acquisitions of U.S technology assets." *California Management Review* 42(3): 50-71.

James, A. D., L. Georghiou and J. S. Metcalfe (1998). "Integrating technology into merger and acquisition decision making." *Technovation* 18(8/9): 563-573.

Johnston, W. J., M. P. Leach and A. H. Liu (1999). "Theory testing using case studies in business-to-business research." *Industrial Marketing Managemenent* 28: 201-213.

Jönsson, P. and C. Grundström (2004). Finding the path for innovations in the automotive industry. R&D Management Conference, July 7-9, Sesimbra, Portugal.

Keil, T. (2004). "Building external corporate venturing capability." *Journal of Management Studies* 41(5): 799-825.

Kelly, J., C. Cook and D. Spitzer (2003). Unlocking shareholder value: The keys to success - Mergers and acquisitions: A global research report. KPMG.

Kennedy, K. H., G. T. Payne and C. J. Whitehead (2002). "Matching industries between target and acquirer in high-tech mergers and acquisitions." *Technology Analysis & Strategic Management* 14(2): 149-162.

Konkurrenslag SFS 1993:20, www.kkv.se.

Larsson, R. (1990). Coordination of action in mergers and acquisitions: interpretive and systems approaches towards synergy. Lund studies in economics and management The institute of economic research. Lund, Lund University.

Larsson, R. (1993). "Case survey methodology: Quantitative analysis of patterns across case studies." *Academy of Management Journal* 36(6): 1515-1546.

Lengnick-Hall, C. A. (1992). "Innovation and competitive advantage: What we know and what we need to learn." *Journal of Management* 18(2): 399-429.

Mayo, A. and T. Hadaway (1994). "Cultural adaptation - The ICL-Nokia-Data merger 1991-92." *Journal of Management* 13(2): 59-71.

Moon, C. W. (1998). "Technological capacity as a determinant of governance form in international strategic combinations." *Journal of High Technology Management Research* 9(1): 35-53.

Nagarajan, A. and W. Mitchell (1998). "Evolutionary diffusion: Internal and external methods used to acquire encompassing, complementary, and incremental technological changes in the lithotripsy industry." *Strategic Management Journal* 19(11): 1063-1077.

Prabhu, J., R. K. Chandy and M. E. Ellis (2005). "The impact of acquisitions on innovation: Poison pill, placebo or tonic?" *Journal of Marketing* 69: 114-130.

Ranft, A. L. and M. D. Lord (2000). "Acquiring new knowledge: The role of retaining human capital in acquisitions of high-tech firms." *Journal of High Technology Management Research* 11(2): 295-319.

Salmi, A., V. Havila and H. Anderson (2001). "Acquisitions and network horizons: A case study in the Nordic graphic industry." *Nordiske Organisasjonsstudier* 4: 61-83.

Slowinski, G., et al. (2002). "After the acquisitions: Managing paranoid people in schizophrenic organizations - Successful integration of the R&D function requires management to focus on six factors."

Steensma, H. K. and K. G. Corley (2000). "On the performance of technology-sourcing partnerships: The interaction between partner interdependence and technology attributes." *Academy of Management Journal* 43(6): 1045-1067.

Svenning, C. (2000). *Metodboken: Samhällsvetenskaplig metod och metodutveckling - Klassiska och nya metoder i IT-samhället*. Eslöv, Lorentz Förlag.

Utterback, J. and F. Suarez (1993). "Innovation, competition and industry structure." *Research Policy* 22(1): 1-21.

Vanhaverbeke, W., G. Duysters and N. Noorderhaven (2002). "External technology sourcing through alliances or acquisitions: An analysis of the application-specific integrated circuits industry." *Organization Science* 13(6): 714-733.

Warner, A. G. (2003). "Buying versus building competence: Acquisition patterns in the information and telecommunications industry 1995-2000." *International journal of innovation management* 7(4): 395-415.

Werther, J. W. B. and E. Berman (1994). "The future of technology management." *Organizational Dynamics* 22(3): 20-32.

Weston, J. and S. Weaver (2001). *Mergers and acquisitions*, The McGraw-Hill Executive MBA Series, McGraw-Hill.

World Investment Report (2000). *Cross-border Mergers and Acquisitions and Development*. New York and Geneva, United Nations.

Yin, R. K. (1994). *Case study research - Design and methods*. Thousand Oaks, Sage Publications, Inc.

Öberg, C. (2004). On customers in mergers and acquisitions. <u>Department of management and economics</u>. Linköping, Linköping University.