Abstract: Innovative companies in technologically advanced environments have to deal with the consequences of choosing between a resource based strategy and possibly missing out on the benefits of cooperative knowledge, or collaborating with their network of suppliers, customers and even competitors and risk diluting their competitive advantage. This thesis is concerned with the cooperative aspect within intricate networks of technologically innovative firms. To gain a better understanding of this phenomena, the most innovative sector in Sweden has been chosen for a case study. The purpose of this thesis is to explore the dynamics of innovation within the telecom sector in Sweden, and determine the level of cooperation within the telecom sector, in terms of the flows of information and embeddedness. The method chosen to fulfill this purpose was via a qualitative approach, and in the form of a case study. Relevant data was collected through five interviews with key personnel within the two companies of interest (Ericsson & TeliaSonera), and triangulated with secondary quantitative and qualitative data. Results indicate that the Swedish telecom sector benefits from a fertile environment that fosters innovative activity, and to that reason it has claimed leadership in the worldwide telecommunications industry. Additionally, this same environment promotes collaboration between the different actors in the sector. A closer examination of the cooperation between TeliaSonera and Ericsson in the 4G network roll-out, indicates that the cooperation, albeit being successful, could be ameliorated further through an increased embeddedness of the partnership.

Keywords: Inter-firm collaboration, Management of Innovations, Technological innovations, Sectored patterns, Relational embeddedness, Telecommunications

I. INTRODUCTION

1.1 Technological Innovations

The term innovation has become a widely and sometimes loosely used word within and outside the business realm. Frequently used as a description of exciting and new products, the definition of an innovation need not be restricted to the novelty of the product or service (Christensen & Raynor, 2003). Scholars have been trying to settle on a single unified definition of innovation that encompasses all the aspects of innovative activities (i.e. novelty, change, advantage) (Berthon, Hulbert, & Pitt, 2004). One aspect they all seem to agree on though is the distinction between inventions and innovations, as an innovation is simply an invention that has been commercialized.

This importance is heightened when the innovations are of a technological nature, as their impact is so intense that sometimes it can change the face of an entire industry (e.g. Apple’s iPod, or the Internet) (Solow, 1957; Chilver, 1991; Syrett & Lammiman, 2002). Introducing technological innovations are in fact any company’s most appealing outcome, due to the immense competitive edge they provide (Lawless, 1996). Successful technological innovations require a complex combination of human and capital resources in addition to the proper diffusion and distribution techniques to ensure the successful commercialization and adoption of the innovation (Jorde & Teece, 1990). This complexity aspect has sprung a heated debate between the supporters of a protective strategy that advocates the safeguarding of the innovation process as it is regarded as a competitive advantage (Barney, 1991), and the proponents of a collaborative strategy based on knowledge transfer and benefiting from the company’s network and ecosystem (Adner, 2006).

The resource-based view of the firm suggests that companies ought to gain competitive advantage by having valuable, rare, inimitable, non-substitutable resources (VRIN) that they should convert into strategic capabilities and core competencies (Barney, 1991). In the case of a technologically innovative company, the competitive advantage lies in the resources and core competencies that allow the company to be innovative: technological competitive advantage. Maintaining these resources require a so-called isolating mechanisms (Rumelt, 1984; Bharadwaj, Varadarajan, & Fahy, 1993) that include information asymmetries i.e. where a player has favourable access to that of another in a transaction.

1.2 Swedish Telecom Sector

In the quest of understanding this conundrum, we sought out to find the most innovative environment more specifically with Sweden as the setting, as the country remained at the top in Europe in terms of innovation performance according to the Innobarometer report published by the European Commission (2009). This was both in terms of R&D expenditures and patenting activity (European Commission, 2009). With Sweden as the setting, looking further into the patent data available at the European Patent Office (EPO) one type of technology-sector stands out from all the others, namely the telecommunications sector.
According to a calculated revealed technological advantage (RTA) index, it is in fact one of the most innovative in the world, and is by that certainly the most innovative sector in Sweden, in terms of output generated compared to other sectors.

II. INTER-FIRM COLLABORATION

The Swedish telecom sector benefits from above adequate conditions that not only offer a suitable environment for innovative companies, but also foster innovation. Deregulation and globalization has expanded the arena of telecommunications in Sweden and elsewhere. International competitors abound as innovation and speed to market becomes increasingly important. As can be seen in the sectoral patterns and characteristics, the Swedish setting provides interesting grounds for innovation and consequently a special setting regarding knowledge transfer between firms within telecommunications.

2.1 Knowledge transfer

In the case of the collaboration between TeliaSonera and Ericsson, the knowledge management aspect of the cooperation has been highlighted by the interviewees (especially on TeliaSonera’s side) as having played an important in ensuring the success of the product, albeit for some setbacks. Knowledge was transferred by the means of continuous contact between the two companies in the form of meetings and constant communication between the two parties. Two general mistakes were made in the beginning; the first one was that the meetings with Ericsson and Samsung were conducted separately by the customer. According to TeliaSonera, this has led to several problems including delaying the entire process as the meetings were taking up more time separately than they would have had they been combined.

The other issue is that the different actors in this partnership could not have benefited fully from the collaboration had they not been in the same room (according to TS2, who was part of the entire collaboration process and helped coordinate the meetings as well as represent TeliaSonera in the negotiations).

III. CONCLUSIONS

The purpose of this thesis is to explore the dynamics of innovation within the telecom sector in Sweden, and determine the level of cooperation within the telecom sector, in terms of the flows of information and embeddedness. In order to fulfil this purpose, three research questions have been devised, and the corresponding data has been collected by means of a case study, and analysed through the contrast and reflection using the theoretical background as a framework.

REFERENCES.


