

Establishing International Technological Cooperation - Searching Partners through Governmental Technology Agencies

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Abstract

National governments and the European Union assist companies with various services and funding to support their research and development and other related activities, including marketing technologies and finding domestic and international partners. One of the services is technology marketplace that mediates both technology offers and requests that are inserted in a database. This study uses a case strategy to investigate the interaction between a technology agency and its client, an Israeli software company that used the database to find partners. The results of the study show that the resources that are offered by the governmental body are sufficient and of good quality and that for the client it was rather simple and did not any investment but some time to use the service. However, the study revealed that finding a suitable partner through the database is not that straightforward due to the service- and user-related obstacles. The process may be lengthy and the number of interested parties low.

Keywords

technological cooperation, partner search, governmental technology agencies, databases innovation relay centre network

The background of the study

Cooperative agreements between technology companies, essentially located within ICT-cluster and its industries, have become more common since 1980's covering various areas from marketing and channel cooperation to research and development (Hagedoorn 2002, Narula and Hagedoorn 1999). A fundamental resource of the sector is knowledge, which is expensive to create and difficult to price and to transfer from firm to firm through regular market transactions. Cooperation, therefore, can essentially facilitate technology transfer based on various knowledge bases among firms. Technological cooperation can pursue development of scientific knowledge for further development of its applications or the purpose can be the establishment of a marketing channel for the technology product. The theoretical domains discussing partnerships and networks can be found in Industrial Marketing and Purchasing Groups Interaction and Network approaches and in resource-based view (RBV). Several labels can be found in the literature to describe the phenomenon: strategic technology partnerships, value-adding partnerships and networks, strategic networks, innovation networks and strategic alliances, among others (Duysters, Kok and Vaandrager 1999; Gulati, Nohria and Zahbaar 2000, Håkansson 1987; Ireland, Hitt and Vaidnyanath; Narula and Hagedoorn 1999).

A critical phase in network or partnership formation for a firm that wants to cooperate is locating the attractive partners with suitable resources and making them interested in forming the network or the partnership. This phase in the network or partnership lifecycle can be called mobilization (Lundgren 1992). It is possible that the partners know each other beforehand and are thus familiar with the each other's resources and the opportunities to create new offerings to the market. However, often the partners have to be located outside the familiar domain of companies and nowadays even more frequently overseas (Doz, Olk and Ring 2000; Narula and Hagedoorn 1999)

The European Union and the national governments in many countries have taken an active role in closing the gap between globally dispersed companies that can potentially participate in technological cooperation with each other. The EU and governments provide services and grants for companies, research institutes and universities pursuing cooperation with both domestic and international partners. In 1995 European Union decided about establishing a Network of Innovation Relay Centres (IRC) for providing the services. Today, there are 230 organizations that belong to the network in 33 countries, including many EU-countries, and also outside the Union and there are over 1000 technology transfer specialists working in those organizations. The EU funded services are often offered by the national technology agencies because of the similarity of the objects and the same target group. The services are free of charge for companies as the EU and the national governments have allocated funds for the promoting technologies and cooperation. (Haimi 2005, 20; IRC Finland – Suomen Innovaatiokeskus 2005, 1-2). The following Figure 1 illustrates the relation of the parties providing services for companies and research institutes.

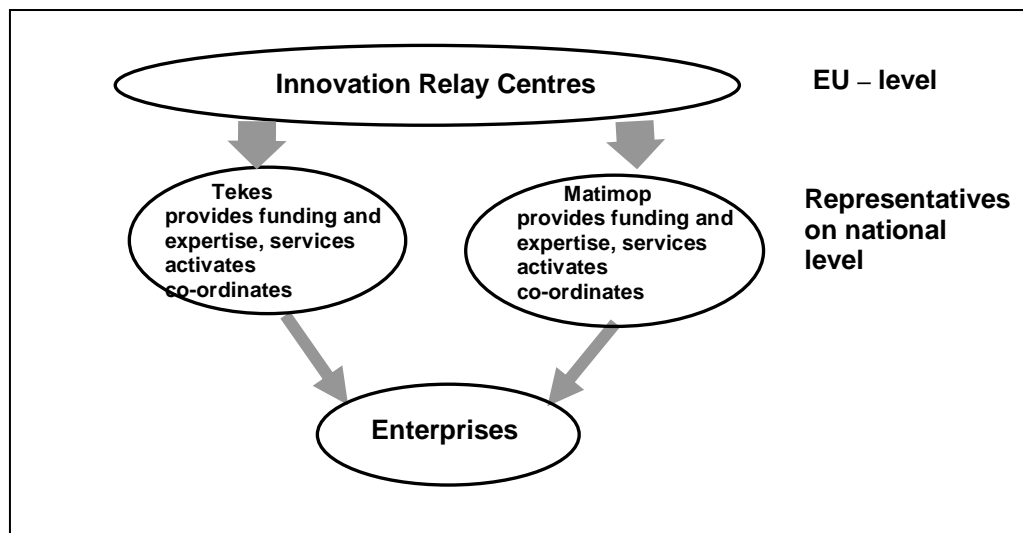


Figure 1 Network of Innovation Relay Centres and the national technology agencies providing services for enterprises.

In Finland the representative of the IRC services is Tekes and in Israel the agency is called Matimop. The services that they provide include marketing technology itself and marketing the services for its localization, brokerage services in partner search, organizing events for companies to meet, contacts to investors, venture capitalists and other national actors that represent innovation activities and technology marketplace services. This study is interested

in the last matter, technology offers and requests through databases and the partner search by using this tool.

One of the services is publishing the company profiles of the companies that are looking for partners through databases internationally. This study aims at exploring the process of partner search through these databases from the interaction with the governmental body or its representative to the match with a partner. This triangle is illustrated in the Figure 2 below. The questions that this study poses are

- How much resources does the firm that is looking for partners have to invest in the in the search process?
- What kind of resources does the governmental body or its representative offer in the process to the parties?
- How well did the search through the databases correspond to the expectations of the firm that is looking for partners?

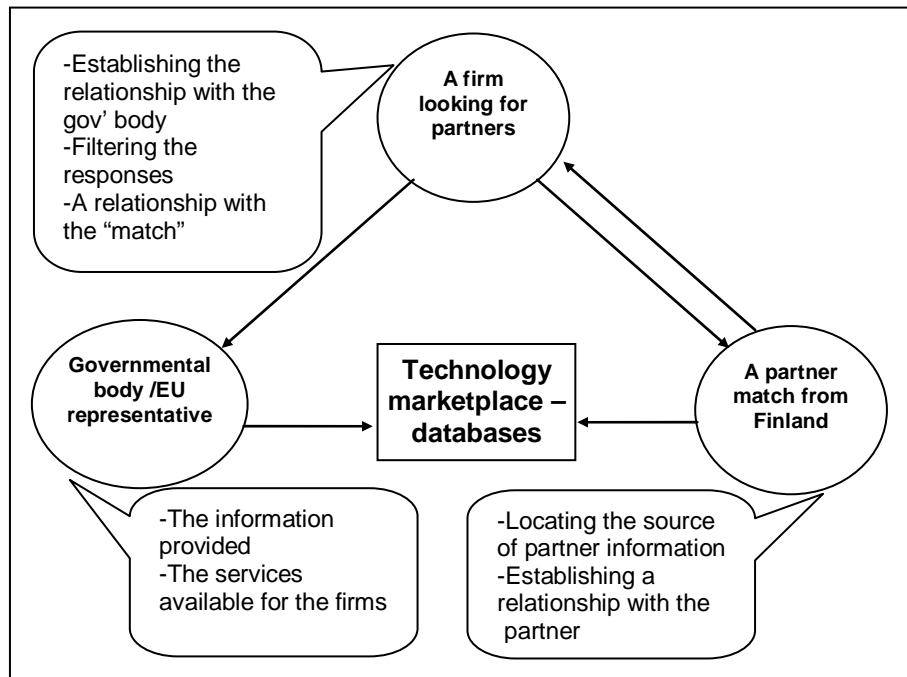


Figure 2. The parties in the search for partners

Case study

The research methodology used is qualitative, since it supports the explorative purpose of the study (Yin 1994). The findings of the study are based on a real life case that describes how a small Israeli technology company Delta was looking for partners in Europe in order to establish a marketing channel for the software application that it had developed for tracking logistical processes. Data was collected in interviews that were conducted in the Israeli company that was looking for partners, in the Finnish company that matched the search and

also, in the Israeli governmental body that mediated the search. Additional written material was provided also by the Finnish National Technology Agency Tekes

Case description

The core business Israeli software developer Delta is design and development of systems integrating software to support supply chain applications for logistics business and institutional environments. In 2003 the company finished a long development project, whose goal had been a system that would add visibility to logistics; the system is able to observe the movements of goods and give alarm if there is any disturbance on the way to their destination. Delta had observed that there was a need for this kind of solution for several reasons. Large companies now have a globally dispersed supply base and they need to be aware what is happening in the downstream supply chain. Outsourcing in general has become more common and the suppliers are not providing merely raw materials, but they are assembling sub-systems for their main contractors, which again increases the need for meeting the delivery schedules in a very strict manner. There are no buffer inventories any more, but companies are relying on just-in-time deliveries. In Israel Delta found customers that wanted to acquire the solution, but it was interested also European markets and it was looking for ways to reach these markets.

The company was at that time contacted by Matimop, which is part of the Office of the Chief Scientists (OCS) in Israel. OCS belongs to the Ministry of Industry, Trade and Labor and is responsible for the implementation of governmental policies regarding the support and encouragement of industrial R&D in Israel. The proactive role that Matimop had taken in offering services for technology companies is related to its position as a governmental body; it is government's interest to promote technological cooperation, which in turn can have a positive impact on the country's economy.

However, this was not the first time Delta was dealing with the office. It had previously had contact with Matimop few years earlier, when it had participated in a joint project with one of the country's universities. When Matimop this time contacted the company, Delta was asked questions concerning its current technological status so that Matimop could evaluate, whether the services of the office would fit for the company. Since Delta fulfilled the requirements, Matimop suggested that Delta should join the IRC technology marketplace and thus the insert a company profile in the IRC database, the service supported by the EU, and to the database that was maintained by Matimop itself. Thus, the potential partners in Israel and in those countries that were related to the IRC network could see Delta's profile.

Matimop gave instructions for Delta how to insert the information to the database. However, the company had some difficulties in this process and it had to turn back to Matimop in order to get more support. After the data had been inserted, the CEO of Delta started waiting eagerly that the service would produce a lot of contacts from interested companies. Delta expected that those companies would want to buy the solution that Delta had developed or that they would like to become a distribution channel for the product in other countries. The expectations proved to be overestimated. There were few contacts from some three or four European countries, but these were not suitable, since the companies were not in a fitting position in the supply chain in relation to Delta. They were R&D companies and interested in

including Delta's software into their own solutions for further development and not buying it for managing the logistics process of the company, as Delta expected.

Few months after sending the information through Matimop, in June 2003, an interested partner from Finland contacted Delta. Actually the correspondence at first was intermediated by Matimop, implying that the database did not publish the name of the company, but gave instructions to turn to Matimop, which would then deliver the contact to the Israeli company. A senior advisor of a small company specialized in sales and marketing visited the Finnish National Technology Agency and found the profile of Delta in the database. This person had a long experience in information and communications sector and the products in supply chain process management. Therefore, according to the key words that Delta had used this person recognized that there could be synergies between the companies and that the Finnish company could represent Delta in the Scandinavian market. The two companies started exchanging emails and negotiating about the issue. After half a year they signed a contract, which implied that the Finnish counterpart was now an official representative of the Israeli company's product in Finland. In spite of the modest start in Delta's, partner search, the database had fulfilled its purpose.

Case study analysis

The purpose of this analysis is firstly, to evaluate the resources that were required from the technology company to participate in a partner hunt by using the services of the governmental body. Secondly, the purpose is to evaluate the usefulness of the resources offered by the governmental body, on the one hand their sufficiency in the partner search process and on the other hand to evaluate how well they fit to the purpose they were targeted, that is, how well the expectations to find partners were met.

Resources used and offered in the partner search process

The case study shows that the resources, mainly time, required from the small technology company Delta were not that substantial. First of all, it did not need to approach the governmental body, but that body approached Delta. All the interaction between the two was took place in the phone or by mail and no meetings were required. However, earlier Delta had participated in an event arranged by Matimop that was introducing the possibilities for technological cooperation. Since the two parties were not aiming at establishing a long-term relationship with continuous interaction, the investments in the relationship could be light. Secondly, inserting the profile of the company to the IRC database was not a time consuming task either, although the company had to turn to Matimop ones to ask for more technical advise.

Assuming that the database is able to provide a partner match for Delta and thus fulfills the task it has, the company is able to draw many benefits in comparison with the other options it has to find a partner. If a search for a reseller-partner would not bear fruit and Delta would not succeed to find a reseller in other ways, e.g. looking for suitable partners in catalogues that list companies in each countries, or Internet, it would have an option to establish a unit specialized in sales and marketing in a specific country or in many countries in order to sell the solution directly to the customers. This would naturally require much more efforts to establish. Also, in the case when Delta would try to find a reseller directly, e.g. by contacting directly to suitable candidates, it would need to invest much more in the search costs.

The small technology company experienced that the resources that the governmental body offered were of good and sufficient for the purpose. The staff in the office was skillful and helpful and Delta got an impression that they were urging the small company to use their services. The conclusions that can be drawn from the above discussion are that it is rather uncomplicated a company to start using the services provided by the IRC network and the national technology agencies in technological cooperation matters. Also, these bodies are rather eager to offer their existing resources for the companies. However, fulfillment of the expectations and thus the usefulness of the database in partner search from require a more detailed analysis.

Fulfilling the expectations in the partner search process

Although the Delta in the end was contacted by a suitable partner in Finland that had found the company through the database, the low number of interested partner candidates was disappointing for the company. It had expected many more contacts from European companies. It is suggested here that the reasons for the low rate of answers can be either service- or technology offer -related. An important service-related obstacle is the awareness. Technology offers and request in the Internet in the database can be considered as an innovation. It is argued that even nearly all the potential companies that could benefit from the service are aware of its existence. Private persons that are used to use certain over-the-counter services may find it difficult to start using the same services on-line and those who do change their behavior are often more innovative (Sultan 2002). This problem should not be found among companies, whose basic tool Internet often is and especially technology companies can easily understand the advantages of new technologies. Therefore, it is suggested that once companies become aware of the possibility to use the database for partner search, a step to start using it is very low among both those that are inserting their profiles to the databases and those who are looking for suitable technologies. The costs of the use are minimal in comparison to other alternatives to find technologies and partners.

Therefore, the national technology agencies should address the awareness issue and spread information and promote the services in the area. Particularly small technology companies are still very often lacking business skills and other knowledge besides technological knowledge. Therefore, if they are not in direct contact with the technology agencies or any intermediating bodies, they do not know about all the services, if any that exist within the agencies. Those better aware about the services are possibly those companies that have had contact with the agencies in other matters, for example when they have applied funding for their research and development.

Based on the case study it can be suggested also that there is another group of companies that may not know about the database and the services. It was stated by the developer of the logistics solution that the potential persons that could have found it interesting are purchasing managers in manufacturing companies. Again, the likelihood that that kind of group of people knows about the service is low. Manufacturing companies in general, especially if they are not in high technology business do not naturally have a need to screen their environment in order to find new and interesting technologies even for their R&D. The likelihood naturally increases if the companies are in high technology business and need new solutions from the market to be included in their offering.

Furthermore, purchasing managers may not be aware that such technologies even exist that would radically change their work and therefore, they do not even know what to look for. Manufacturing companies and low tech in general are also not necessarily linked with national technology agencies. Thus, the technology agencies could try to increase the awareness the services among those actors, which do not offer technologies but which could be identified as their users. However, it is natural that the resources that the technology agencies have are limited and the activities have to be focused on the primary areas. One way of improving the awareness among those that are searching technologies would be improving ability of the general search engines to direct the search to the databases, or perhaps to a directory of them, including all those that are available for technology search. The experience of Delta speaks for the power of the general search engines. Company's new website brought tens of visits in a short time as a result to with the simple keywords "supply chain".

In addition to the service-related issues, mainly awareness-problems, there may be user-related issues that make finding a partner match through the database complicated. The technology that is marketed may be so new to the market or its target group is so specific, which diminish the possibilities that a suitable partner will find in the Internet. However, also if technology is very common, well-known and widely available, the potential companies that need that particular technology may prefer domestic sources for acquiring it instead of entering often lengthy and more difficult negotiations with long-distance partners. Also, the database may not be that useful, if the partner that is needed is a large company that could use the offered technology as a part of its full solution. It is possible that large companies are not interested in looking for technologies in the database, if they have already a plenty of that kind offers coming in directly and there is a lot of competition in the field among the companies making those offers.

The key words that are used may also not be well chosen to describe the technology. The one, who is performing the search in the database, may use different key words than the one that has inserted the profile and the key words to the database. A new and unknown technology also may be problematic; again the one performing the search may not know in which words to look for. The case study also illustrated that company that inserts the technology offer to the database may also need to wait for the answers from the interested companies for an unknown period of time, and that the process of finding the match may take a long time. In the case it was two months.

Conclusions

This paper aimed at investigating technology companies' partner search through governmental technology agencies and services they provide, initiated and supported also by the European Union. The service that was in focus was the technology marketplace, a database that includes both technology offers and request from companies in Europe and in some other countries that have chosen to cooperate in the matter. The study was explorative and the results it provides can form a basis for further studies for setting research questions and hypotheses.

The results of the study show that the resources related to the service, partner search through the database and provided by the governmental technology agency in Israel, were of good quality and sufficient for the small technology company that used the service. Also, the

technology agency had taken a proactive role in promoting the service for potential clients, which also speaks for the willingness of the technology agency to assist the technology companies in practice according to the governmental policies. The small company found it rather uncomplicated to start using the service once it became aware of it. Becoming a user of the database and inserting the profile did not demand a lot of resources, since the service was free of costs for the users and the interaction with the technology agency did not require face-to-face meetings, but all the necessary information could be transmitted in telephone.

However, the expectations of the service user, in the case of this paper a small technology company Delta, were not fully met. It must be noted that with the word "expectations" one has to be careful, since they can include elements that are highly subjective and not necessary realistic. The results of the study, nevertheless, give a direction regarding the efficiency of the technology marketplace in use, although further investigation would be needed to strengthen the impression that this study gave. The user of the database did not have many interested contacts, on the one hand, and on the other hand, in relation to the small company, they were not favorably located in the supply chain. The governmental technology agency in Israel acknowledged the problematic issues related to companies' awareness of the service – not all suitable partners know about the service and its possibilities.

This study suggests that in order to address the above-mentioned awareness problem, which is service-related issue, the national technology agencies could try to promote the database among companies that are located in various positions in the supply chain. Also, they could develop ways how the general search engines could direct the random technology searchers, unaware of the service, to the technology market place. In addition to the service related problems, the user-related issues, mainly the characteristics of technology can also form an obstacle for finding a partner through the database.

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