

GETTING INTO THE ESTABLISHED NETWORK – LOGIC BARRIERS FOR YOUNG, INNOVATIVE FIRMS

Christina Öberg¹
Lund University
Department of Industrial Management and Logistics
P.O. Box 118
SE-221 00 Lund
Sweden
christina.oberg@iml.lth.se

Tommy Tsung Ying Shih
Lund University
Centre for East and South-East Asian Studies
P.O. Box 117
SE-221 00 Lund
Sweden
tommy.shih@ace.lu.se

Paper submitted to: *The IMP Conference, Rome*
Competitive paper
Track: *Combining the social and technological aspects of innovation*
Date of submission: March 12th, 2012
Revised submission: July 1st, 2012

¹ Corresponding author: Christina Öberg

ABSTRACT

This paper discusses the difficulties for young, innovative firms to establish relationships with other companies based on differences in logics among firms. Logics refer prioritizations and interests that underpin interaction decisions. In the paper we make a distinction in logics between orientation to technology advancements and to present structures, and in terms of timeframes. The empirical part of the paper consists of two case studies. Differences in logics inhibit the establishment of relationships, and four parameters have consequences for the young, innovative firm and the possibility to establish business relationships: (i) its lack of present or inherited network ties; (ii) its logic towards technology rather than marketing; (iii) the structure of established firms, and (iv) the difference in logics between established and young, innovative firms. We conclude that divergences in orientation to technology advancements or present structures hinder the establishment of relationships. Such orientations may however shift during the course of their present interactions. Differences in timeframes do not hinder the establishment of relationships, but continue to be a conflicting issue once the relationship is established. The paper contributes to research on innovations in networks through highlighting issues of differences in firms' logics and their effects on the likelihood for establishing relationships among them. It further indicates that similarities in logics is not only a consequence of interaction, but is also widely decisive for the choice of interaction partners.

Keywords: Innovation; Logic; Entrepreneurship; Relationships

INTRODUCTION

Researchers draw attention to how innovations (i.e. the creation and subsequent use of new ideas or idea combinations, Drucker, 1985) increasingly take place in interactions (Chesbrough, 2003; Ozman, 2009). Young, innovative firms may often lack such ties to other parties, however, and especially so if the firms are not the result of a customer initiative or the spin-off from an established organization. In this paper, we focus on firms that were established as the result of technology advancements and research findings, but that had difficulties to establish customer contacts. Rather than basing their innovations on customer ideas (von Hippel, 1978), supplier-co-creation of innovations (Azadegan & Dooley, 2010; Reichstein, Salter & Gann, 2008), or network-based innovation processes (Corsaro, Ramos, Henneberg & Naudé, 2012; Dhanarag & Parkhe, 2006), these firms rely on their own innovation-specific competences. Their ideas are often technology-driven rather than market-oriented as a consequence, and their approach to innovations grounded in product-functionality completion rather than commercialization aspects (Norrman, 2008). Their ideas promoting a technology advancement indicate how they are discontinuous or radical (Bessant & Tidd, 2007; Chandy, Prabhu & Antia, 2003) and thereby also potentially challenge established structures.

The lack of market skills and contacts to customers stipulates that such firms are eager to connect to customer companies (Aaboen, Dubois & Lind, 2011; Tunisini, 1995). However, while the young, innovative firms also in general may find it difficult to establish relationships with external parties, they are even less successful in doing so with market actors. Those potential relationships that they establish are instead with actors that share their technological interest: other newly-established companies, universities, and venture firms with foci on new technology developments (Löfsten & Lindelöf, 2002). It is then relatively easy to understand that the technological innovations not always reach customers (Martin & Scott, 2000).

What are then the obstacles for these young, innovative firms to establish customer relationships? First of all, they have no inherited networks from which to build their own contacts. Thus it is a matter of lack of actual network ties. But it is also the consequence of own orientations, and the orientations of other actors. The young, innovative firms choose such interaction partners that share their own viewpoints: their focus on technological advancements and their interest to figure out new solutions. We describe this as how the young, innovative firms choose interaction partners based on shared *logics* (cf. Dunn & Jones, 2010). A further complicating matter for young, innovative firms to find interaction parties is the rigid structure of present networks. Researchers have described how networks enable and inhibit developments of businesses (Håkansson & Ford, 2002). Companies tend to remain in present structures based on switching costs and investment made into present relationships (Ganesan, 1994). In addition to this, these companies expectedly differ in their logics from the young, innovative ones: they are not as focused on new ideas. Hence, as reasoned in this paper, there are four factors that impede the young, innovative firm in its establishment of business relationships: (i) its lack of present or inherited network ties; (ii) its logic towards technology; (iii) the structure of established firms, and (iv) the difference in logics between established and young, innovative firms.

In this paper, we focus on logics of young, innovative firms and how actors surrounding, without establishing relationships with, such firms may represent different logics. Logics describe prioritizations and interests that shape activities (Dunn & Jones, 2010; Thornton,

2002). For a firm, logics are represented in implicit or explicit goal formulations, strategies, and priorities. In the present paper, logics characterize those similarities and differences that underpin young, innovative firms, established companies, their decisions to interact, and their goals with such interactions. The purpose of the paper is to *discuss the difficulties for young, innovative firms to establish relationships with other companies based on differences in logics among firms*. We make a demarcation on technology advancement and present structures, and one related to time frames, to distinguish different actors and their logics from one another, and to, based on divergences in logics, explain why young, innovative firms may find it difficult to establish relationships with other parties. We further describe how parties with similar logics are more inclined to establish relationships among them. This latter aspect means that the technologically-oriented, young, innovative firm more easily manages to convince other technology-focused actors to contribute to its innovation, than it will manage and be interested in establishing contacts with established market actors. Timeframes describe how the firms differ in their expectations and perseverance in terms of return on investment (cf. Håkansson & Waluszewski, 2007). As we present in the paper, timeframes are based on scales of differences and become explicit only once relationships are established, while technology advancement vis-à-vis orientation to present structures may be contradictory and counteract the relationship establishment. The following research questions are raised:

- How do young, innovative firms' logics differ from established ones?
- What implications do differences in logics have for interactions?

The paper contributes to research on innovations in networks through highlighting issues of differences in firms' logics and their effects on the likelihood for establishing relationships among them. The paper explicitly describes such differences related to young, innovative firms and thereby accents how new innovations may find it troublesome to reach customer acceptance (cf. Norrman, 2008). While researchers have previously pointed to different logics in networks, such logics have mainly been regarded as evolutionary or interdependent dimensions (Bengtsson & Kock, 1999; Möller & Svahn, 2006; Waluszewski, 2011). Here, we stated them as contradictory, perhaps even conflicting or at least, challenging for the establishment of relationships among firms.

The paper is structured as follows: The next section describes our theoretical point of departure. Theoretically the logic idea is grounded in research on business networks and we relate it to different network roles (Anderson, Havila, Andersen & Halinen, 1998). Following after the theory section, the method is described. The empirical part of the paper is based on a multiple-case study that aims to illustrate the differences in logics and its implications for the young, innovative firm's ability to establish relationships. The cases are presented and analyzed. In the analysis section, research questions are answered, and the implications of logics to the establishment of relationships are discussed. The paper ends with a concluding discussion, practical implications, and ideas for further research.

THEORY

Innovations and networks

In business network studies, the prevailing viewpoint describes innovations as resulting from interactions (Ehrnberg & Jacobsson, 1997; Håkansson, 1989). The adaptation of firms include

them taking evolutionary steps to new or complementary uses of resources (Ford, 1980; Hallén, Johanson & Seyed-Mohamed, 1991). Such a viewpoint finds increased support in the innovation literature. While early acknowledged by scholars such as von Hippel (1977), the inclusion of external parties in innovation processes has recently rendered increased research focus. Open and distributive innovations, and crowd-sourcing (Chesbrough, 2003; Ebner, Leimeister & Krcmar, 2009) have become buzzwords to highlight such participations.

The literature that refers to innovations as developed in conjunction among firms, bases its argument on how different actors advance innovation processes to a better outcome. A firm receives inspiration and improvement suggestions from interaction parties, or it uses competitions to solve detected problems (Piller & Walcher, 2006). The scholars depict innovations as developed by existing firms, and in the interactions: based on present needs and resources. Roles of actors are either shared (they have similar roles and participate as a group of firms or individuals in the innovation process) (Heikkinen & Tähtinen, 2006; Robertson, Swan & Newell, 1996), or complementary (they have different roles, yet share the purpose of their interaction) (Aldrich & Zimmer, 1986; MacPherson, 1997). This former describes alliances of innovating bodies (Dhanarag & Parkhe, 2006), while the latter is reflected in discussions on suppliers, customers, public bodies, venture firms, and other financial backers that support an innovative firm (Almeida, Dooko & Rosenkopf, 2003). This presents different roles of interaction partners (Anderson et al., 1998), and describes how they may act beyond those role expectations ascribed to them in the traditional exchange among firms (Öberg, 2010). Customers, suppliers and other interaction partners act as innovation initiators, informants (Athaide, Meyers & Wilemon, 1996; von Hippel, 1986), and co-developers (Buur & Matthews, 2008), but they do so while placing more traditional expectations on the outcome of interactions. The customer aims for an improved product, and the supplier for more efficient production processes (Desouza et al., 2008; Johnsen, Phillips, Caldwell & Lewis, 2006). The development of innovations in interaction of parties with different roles portrays how the innovative firm has established relationships with these other parties. A young, innovative firm may however lack such connections to other firms.

The establishment of relationships for innovative firms

A young, innovative firm may well take form from established actors: as a customer initiative triggering ideas that create the foundation for a new firm, or as the spin-off from a current company (Desouza et al., 2008; Vohora, Wright & Lockett, 2004). Such firms expectedly inherit those structures that guide their foundation. The spin-off maintains business relationship or ownership ties with its parent company. The customer-initiated startup, presumably keeps the customer as an important contact (von Hippel, 1986). But, firm may also result from ideas not embedded in present structures or companies. Those technologically oriented firms presented in this paper describe firms that result from solution-driven advancements (cf. Norrman, 2008). While these firms may be well-embedded into structures of research advancements and technological frontiers, they often lack any contacts to potential or actual business partners.

Researchers such as Ford (1980), Dwyer, Schurr and Oh (1987), and Schurr (2007) have described the development of business relationships. Their focus is how relationships evolve over time, and their point of departure how firms benefit from longevity of relationships (Ganesan, 1994; Garbarino & Johnson, 1999). Complementarity of resources and competences would guide the initial choice of interaction partner (Wilkinson, Young & Freytag, 2005). The choice of interaction partner will also result from how well the partner

and its offering fit with current structures and belief-systems of the company. The tendency not to go for the most far-reaching ideas is evident and results from how investments in established structures make it less attractive to abandon them for new solutions. Such investments include actual resource investments as well as continuous adjustments in present relationships (Hallén et al., 1991; Håkansson & Waluszewski, 2007). For the young, innovative firm, the efforts to establish relationships with customers, suppliers, and other interaction partners thereby reach beyond issues to convince customers about the superiority of new solutions. It is also a matter of bridging logics of firms, where as we argue in this paper, established firms and young, innovative ones differ in their orientations and timeframes.

Logics

Logics refer to prioritizations and interests that shape behaviors (Barley & Kunda, 1992; Thornton, 2002). They are shaped through interaction and are hence evolutionary (DiMaggio & Powell, 1983) or based on one logic replacing a previous one (Lounsbury, 2002). Such assumptions describe logics as dynamic. It also describes logics as the outcome of interactions, rather than a prerequisite for it, while the opposite could also be argued. As described in this paper, logics and especially differences in logics explain the choice between establishing a relationship or not.

Studies on business networks have used the logic concept to describe different orientations of interactions (Bengtsson & Kock, 2000; Harrison, Holmen & Pedersen, 2010), mindsets of participants in alliances (Eisenhardt & Schoonhoven, 1996; Möller, Rajala & Svahn, 2005), and shared orientations of firms (Waluszewski, 2011). Bengtsson and Kock (2000) refer to companies focus on competition or cooperation in their exchanges. Möller and Svahn (2006) describe different logics as networks develop and similar to Lounsbury (2002) thereby refer to logics as evolutionary. Waluszewski (2011) denotes three economic logics for innovation policies: user, producer/supplier, and developer logics. These logics create settings wherein innovations need to be encompassed to succeed. In line with this, we demonstrate how different logics are represented in parallel. However, we also see the different logics as conflicting rather than complementary. In this argument, we rely on the notion of logics as described in institutional theory (Greenwood, Díaz, Xiao Li & Lorente, 2010). They include traditions, understandings, and practices of firms (Thornton & Ocasio, 1999). Socialization shapes or transforms the logics (DiMaggio & Powell, 1983), but would also require certain conformity for the interaction to take place. The emphasis on differences in logics and their relation to present interaction patterns and interaction choices indicates how different logics co-exist, may be conflicting, and form as well are formed through interaction.

Logics among young, innovative and established firms

The connection between logics and interactions points to how similarities in logics is necessary for the provision of long-term interactions (Bengtsson & Kock, 2000), while the interaction also shapes and reconfigures the logics of its participating members. In an established network of firms, companies will hence share logics. Such shared logics mean that they share or have complementary prioritizations, interaction goals, and interests.

The young, innovative firm that lacks connections to other firms, has to struggle against such established structures, but also own logics. As described in the introduction of this paper, there are four factors that impede the young, innovative firm in its establishment of business relationships: (i) its lack of present or inherited network ties; (ii) its logic towards technology

advancements; (iii) the structure of established firms, and (iv) the difference in logics between established and young, innovative firms. The differences in logics are interconnected to the lack of interaction based on the anticipated two-way influence of logics on and of interactions. Based on an anticipated orientation towards technology of the young, innovative firm, we make a distinction in logics between technology advancements and orientation to present structures. In the reliance on firms' differences in expectations on return on investments (Håkansson & Waluszewski, 2007), we make a second distinction with regards to timeframes of firms. These two dimensions help us to sort and categorize different logics of firms. The different firms are in turn related to their different roles (as customers, suppliers, financial backers, venture firms, and public bodies) in the analysis section.

	Technological advancement	Orientation to present structures
Short timeframe		
Long timeframe		

Figure 1: Analytical tool: Dimensions to contrast different logics.

METHOD

In the study on logics, it is important to grasp what decisions and strategies underpin activities of firms. For that reason, the detailed data of case studies seemed appropriate (Halinen & Törnroos, 2005; Yin, 1994). To illustrate differences in logics, we choose a multiple case study approach (Eisenhardt & Graebner, 2007; Siggelkow, 2007) of two young, technology-oriented innovative firm. Choosing companies that base their business on a technological solution rather than that started off as the spin-offs from another company or based their foundations on a customer initiative, have clear implications for the results of the study. Had we chosen other types of young, innovative firms, results would point to other logics and presumably more overlaps with interaction partners, than the present cases. The firms were chosen from a larger study comprising nine different case studies on innovative firms, since they were the ones that most clearly illustrated our point. Based on for instance Norrman (2008), the orientation that these firms describe is not a rare one, however. The two cases complement and verify one another through their description on the difficulties for the young, innovative firms to connect with established actors beyond venture capitalists and other technology-oriented firms.

Data was collected through interviews and secondary data. Interviewees included representatives of the innovative firm, venture firms that established relationships with it, and different owners to it. The interviews were non-standardized using an open-ended question approach (McCracken, 1988). They lasted between one and one-and-a-half hours each and were performed between 2008 and 2010. The interviews were taped and transcribed, or notes were taken. The secondary data consisted of newspaper items and annual reports of the innovative firm. That data aimed to verify the interviews and provide a timeline to the case (Welch, 2000).

In the analysis procedure, notes and transcripts were processed so as to provide an overall case description. The case descriptions provided a draft to the final cases, and were in a second step labeled with regards to different roles of actors, variances in descriptions on expectations on the innovative firm among different role-keepers, and indications on logics,

their similarities and differences. This step of the analysis was performed in an iterative manner. To find support for arguments and ideas, we moved between case findings and previous research (Dubois & Gadde, 2002), and between perspectives of interviewees and the overall descriptions of the young, innovative firms, to capture items related to logics of firms, and to see how our findings fitted with previous research. This resulted in understandings for whether and how logics were reshaped and changed interaction patterns, and how the timeframe and technology advancement/present structure orientation formed and were formed by interactions.

THE CASE OF TECHNOLOGY LTD.

In the 1990s, Technology Ltd. started off as a technological idea. In their interest in sensor-technology, a small group of innovators had started to combine different sensors to be able to detect different kinds of defects in materials studied. The early years were focused on exploring the technology as such: the combination of different sensors and what results could be extracted from such combining.

"We looked into whether the combining of different sensors would allow for us to identify different patterns of smell in the air in a similar way as the human brain analyses stimuli."

The innovators saw as their main task to advance the technology and its predictability. This however required monetary resources. A venture firm focusing on growth aspects and its own return on investment showed interest in the firm.

"We are in constant need of venture capital. Venture capitalists finance the lion part of our development."

One disadvantage of the financial backers was that Technology Ltd. was not pushed to establish customer relationships. It had its finances solved through continuous contributions from the venture capitalists. In the discussions on technological advancements and alternate ways to combine sensors, the innovators also established contacts with other researchers focusing on sensor technology. These provided discussions on solutions, input to alternative technologies, and ways to productify the technology. The researchers' foci were more related to research results than commercialization of solutions.

Once Technology Ltd. started to consider how its solution could be applied, it sketched on solutions for the food industry. The firm got the opportunity to run some tests at different food manufacturers. The involvement with that sector was however more a matter of creating a test-environment than actually establishing business relationships. These parties also did not see these tests as the start of a business relationship. Rather they took an awaiting position to Technology Ltd. As it turned out, the tests did not work very well. The organic structure of the food made it less reliable to find defects in it (or rather: also good quality food was classified as not meeting standards due to seasonal and geographical differences that did not allow for it to be measured against a pre-set standard). Technology Ltd. had to reconsider its choice of technological application. The firm continued to be sponsored by different venture firms and public bodies. The public bodies were more prepared for the time it took for Technology Ltd. to reach functionality of its solution and find uses to it. Their goal of involvement was for the firm to reach a certain business-level, while the venture firms measured their involvement more on time and quick return on investment-expectations. The involvement of venture firms attracted yet other money providers to the company.

“There was a technological advisory board. The public body was only financiers with no direct activity in the company. They provided the money. I think that helped to get other financial backers.”

To enable the shift to other applications of its solution, Technology Ltd. was supported by the public bodies that however mainly represented general business knowledge, and the firm’s research contacts. One of these research contacts had focused on volume products. Similar to Technology Ltd., the research contacts had their main focus on technological developments and used some social contacts to the car industry for test purposes rather than to actually commercialize their solution. The research contacts were mainly funded through research grants, which meant that their focus was research results. The collaboration with them however allowed for Technology Ltd. to approach volume-product solutions for its sensor technology. While still financially sponsored by the venture firm, Technology Ltd. pursued a merger with a firm established by the research contacts. The merger provided further insight into the other parties’ technology, while the parties largely remained separate also following it.

Different venture firms continued to provide financial resources to the firm. Their short-term orientation became increasingly visible following the merger. Technology Ltd. was pushed for return on investments, while the contacts that had research funded projects, remained with a long-term timeframe. The exit of the venture firms increasingly pushed the firm towards the stock exchange, while it still did not hold a strong enough market position to enable such an introduction.

The case of Technology Ltd. illustrates how the innovative firm kept its technology focus throughout. When it started to establish relationships with external parties, it managed to do so with parties that shared the technological orientations: the venture capitalists, researchers, and also the public bodies mainly focused on the technological advancement. The required mutual agreement for a relationship to become manifested also meant that these parties choose Technology Ltd. based on its fit to their own orientations. Among these parties, the timeframes differed, where the researchers and Technology Ltd. had the most allowing timeframes, while the venture capitalists were focused on short-term investments. The case of Technology Ltd. further illustrates how the innovative firm showed limited interest in establishing relationships with customers and suppliers. These parties were in turn not very open to establish relationships with Technology Ltd., and were in their decisions affected by present structures.

THE CASE OF EQUIPMENT INC.

Equipment Inc. was founded in the mid-1980s as group of innovators interested themselves in image interpretation technology. Their early focus was on developing functionality of the technology, while also considering its potential uses.

“Getting from start, it was the founders that owned the company, and they were engineers.”

The innovators looked into such sectors as farming and the process industry, but it continued to focus on the technology and also searching for new application areas. Rather than making efforts to co-involve customers, Equipment Inc. came to suggest different uses of its technology and shape various systems of applications for the uses. Customers however remained reluctant to the shift in working-methods that an adaptation of Equipment’s

technology would require. The customer contacts mainly meant that Equipment Inc. was enabled to test its technology in some different areas. Different venture firms sponsored the firm financially. These firms had a short-term orientation to their involvement with Equipment Inc., but shared the firm's technological focus.

"You often have money for product development, but rarely to commercialization".

During the development of Equipment Inc., venture firms changed their ownership shares of the company: new ones entered, while old ones left. Some ten years following its foundation, the firm was acquired by another technology-oriented firm. The acquirer was a multinational company with a high-technology focus. It intended to integrate Equipment's solution to its own offerings. The acquirer provided money for further technological developments, while the acquisition meant an end for those customer projects that Equipment Inc. had been involved in.

"In fact, nothing happened. They provided endless of money, but was also trapped with regards to its previous innovative freedom."

Anticipated integration of solutions was never materialized and while the acquirer continued to provide money to Equipment Inc., the innovative firm experienced increasingly less focus on its solutions. It only took two years until the acquirer decided to reorganize its business and focus more on its core competences. Equipment Inc. was divided into parts and sold to different owners. The heart of the business again found how it needed financial backing, and was financially sponsored by two venture firms. The technological focus continued also with their investments. Equipment Inc. struggled severely to reach complete functionality in its solution, and it took fifteen years from its foundation until it did.

"The technological shift was financed by the previous acquirer. It however did not happen until several years following their divestment."

At about this time, competing solutions had appeared on the market and converted the customers to start using similar technologies. Hence, a technological reorientation was required in the market before customers were ready to adapt to Equipment's technology. The shift was introduced by competing firms that already had established relationships with customers, but was also a door-opener for Equipment Inc. Equipment started to be contacted by customer companies, that were also increasingly active in the further development of the solution.

Similar to the Technology Ltd. case, the case of Equipment Inc. illustrates an innovative firm that had a strong technological focus. It established relationships with parties that shared its orientation in that aspect: Not only the venture firms, but also its owner had a technological focus. Customers clearly remained reluctant to establish relationships with Equipment Inc. based on that they were more oriented towards present relationships and less so to new technologies. With regards to customers, the case however indicates a shift in their orientation. Once parties that they themselves had business relationships with introduced solutions similar to Equipment's, the customers increased their interest for Equipment Inc. and the technology. As for timeframes, the venture firms had a short-term orientation to innovations, Equipment Inc. and the customers a long-term orientation.

ANALYSIS

The cases presented here indicate how four factors impede the young, innovative firm's ability to establish relationships: (i) its lack of present or inherited network ties; (ii) its logic towards technology (rather than marketing); (iii) the structure of established firms, and (iv) the difference in logics between established and young, innovative firms. The lack of present or inherited network ties affected the innovative firms' orientation. The innovators based their reason for founding the firms on their technological orientation. Had it been founded based on a customer initiative, the market-orientation would expectedly have been more prevalent as would the ability to establish relationships with those customers that initiated the idea. The structures of established firms made these less inclined to start relationships with the innovative firms. Here it was only such organizations that had a focus on firms in their early phases (venture capitalists, public bodies, and technology-oriented acquirers) that started to work with the innovative firms. These firms shared their technological focus with the innovative firms. Other established actors had other logics for their businesses and interactions: they were more focused on the regular business, and less so on new ideas or technological developments. It was only once their established business partners introduced new technologies that potentially challenged existing structures, that the companies became open to new ideas. At that point, this re-orientation also opened the doors for new actors to enter their networks.

The present paper indicates how logics not only are shaped in interactions (DiMaggio & Powell, 1983), but also how it shapes interaction choices: what firms to interact with, what resources are provided, and what orientations mark the individual interactions partners. The focus on young, innovative firms further points to how logics of firms may be contradictory and thereby make it difficult to establish relationships with other firms. The paper also points to how logics need to be changed before changes occur in the interaction patterns of a company. A re-orientation that opens up an established actor to new technology may in turn enable the young, innovative firm's establishment of a business relationship with it. The convergences are mutual: The established company redirects its investments to a new technology introduced by a present interaction partner. As it does so, the young, innovative firm finds that it shares interests with the established company for the technology.

To illustrate the contradictory logics, we described logics along two dimensions: the orientation to technology advancement and to maintain present structures, and the timeframe of actors. Figure 2 sorts the different roles of actors along these dimensions.

	Technological advancement	Orientation to present structures
Short timeframe	Venture capitalists Technology-oriented owners	-
Long timeframe	Innovative firms Researchers	Customers

Figure 2: Roles and logics of actors.

The two dimensions have some different characteristics in their implications for the young, innovative firm's establishment of relationships. The technology advancement vis-à-vis the orientation to established structures is *distinct* and largely disables the establishment of relationships. This means that the young, innovative firm will choose interaction partners

foremost among firms that share its interest for technology advancement. And companies embedded in established structures will not look for technology-advancement firms as their primary choices. Hence, the orientation makes it difficult to actually establish relationships. As firms develop in their present networks, they may re-orient themselves as part of the adaptations (Hallén et al., 1991) and thereby become increasingly focused on a new technology, for instance. This was seen among the customers in the Equipment Inc. case. Their interest for the new technology increased as their interaction partners introduced new ideas to them.

The timeframe dimension is not as distinct or excluding as the orientation to technology advancement/present structures. Here individual actors had a more or less long-term perspective to innovations and interactions. The time dimension describes expectations on outcome, return on investments (Håkansson & Waluszewski, 2007), and whether relationships are considered to be temporary or continuous (Low, 1996). While the timeframe may differ between interaction and innovation, they follow one another in the sense that relationships are established to reach innovations, input resources to them, or possibilities to reach a market for them. The innovative firms had a long-term orientation to innovations with a low focus on completing them and making them sellable. The researchers had an almost as long time orientation, while venture firms were focused on their quick return on investments. Differences in timeframes did not hinder the firms from establishing relationships among them, but affected the interaction once relationships were established.

Hence, divergences in the technology advancement or present structure orientations hindered the establishment of relationships, but such orientations of actors shifted during the course of their present interactions. The timeframe was instead a scale running from long- to short-term perspectives. It did not hinder the establishment of relationships, but did also not change during present interactions and thereby caused conflicts in prioritizations among the interacting parties. The introduction raised two questions. These are elaborated on below.

How do young, innovative firms' logics differ from established ones?

In those cases studied, the innovative firms were technology oriented with a long-term time frame to their innovations (cf. Porac, Mishina & Pollock, 2000). Established actors were focused on present structures or had different timeframes. In all, these different orientations express how the actors differed in their logics. The young, innovative firm that lacked previous ties to other parties tended not to be very focused on actually leaving the innovation process and was more focused on developing new applications and improving current solutions than building customer relationships. The established ones were oriented towards their present interactions, the use of products, and their market-orientation.

What implications do differences in logics have for interactions?

Differences in logics among firms either hindered them from establishing relationships, or had implications for their continuous interaction. A young, innovative firm oriented to technology advancement did not focus on building customer relationships. The choice of interaction partners followed those logics held by the own firm in its technological orientation. This in turn meant that the spread of new ideas into established structures were largely hindered, and that the relationships did not fully rely on the complementarity of firms. It also indicates how logics may precede interaction and be decisive for what interaction patterns are established, and thus indicate a reverse (compared to e.g. DiMaggio & Powell, 1983), or circular relation between logics and interactions.

CONCLUDING DISCUSSION

This paper introduces logics of firms to highlight complicating factors for young, innovative firms to establish relationships with other companies. It points to the connection between logics and interactions, and in addition to previous research (DiMaggio & Powell, 1983), indicates how similarities in logics are decisive for the establishment of relationships. Table 1 summarizes the dimensions discussed in the paper.

Table 1: Dimension researched in the paper

Dimension	Type of dimension	Logic	Impact on interaction
Technology advancement/present structures	Distinct (firms are considered here to be either or).	Interest.	Need to be changed in present interaction before new relationships are established.
Timeframe	Scale (different actors may have different timeframes on a scale).	Prioritization.	Impacts interaction but does not inhibit the establishment of business relationships.

In the present paper, young, innovative firms were described to be oriented to technology advancement and working with long-term perspectives on their innovations. Certainly, a young firm may well have relationships from start and be customer-focused (Desouza et al., 2008; von Hippel, 1986). A firm resulting from a customer-initiative would depict a different logic to the ones presented here. Logics of such firms would presumably mean that they would be more focused on finding additional customers and commercialize the innovation. This would possibly be set-off by less of a technological focus and larger resistance to build relationships with technologically oriented firms.

The focus here was on young, innovative firms. However, also in established structures, logics of company differ. If relationships are established, they would presumably be similar or complementary, if not; they may be contradictory, conflicting, or challenging. Established relationships would converge logics of actors; divergent logic may explain why no such relationships are established. While we focused on technology advancement or orientations to present structures here, there is also the fundamental difference between interactions aimed for development projects, and more traditional interactions. The former of these entail a further stretch of roles of firms (Öberg, 2010), while the interaction in established structures relies more on customers acting as buyers, and suppliers as sellers. Interactions for development projects would presumably be based on *shared* logics, while the business exchanges would indicate *complementary* logics. The shared logics mean that the different actors devote themselves to the development of new ideas.

In the cases, the changing focus of customers, illustrates how logics transformed in interactions. That example also indicates how it is first following such transformation that the customers were open to establish new relationships. In turn, this illustrates our viewpoint: that

logics need to be similar or complementary for a relationship to establish in the first place. Divergences in logics impede the establishment of relationships among firms. In the paper, this was illustrated in how the firms chose interaction partners based on similar orientations. Hence, rather than describing logics as shaped in interaction, we point to it as both forming and being formed through it.

Managerial implications

Differences in logics create an obstacle for interaction. For a company to be able to build relationships with other parties, it may need to change its orientations in beforehand. The young, innovative firm needs to understand that its focus will have to be more of a market-oriented one, and also public bodies and venture firms need to reconsider how they affect the direction of the young, innovative firm. Overall, public support systems need to be more focused on helping firms in their commercialization (cf. Norrman, 2008) through reorientations of firms, but also through their involvement and provision of interaction partners.

Limitations and further research

This paper is based on a limited amount of cases. Additional ones are prompted to further explore the findings indicated in this paper. Such additional studies may include innovative firms based on customer-initiatives (Desouza et al., 2008), university-spin-offs (Löfsten & Lindelöf, 2002), and innovations as part of established firms (Baden-Fuller & Volberda, 1997). We here delimited the logic concept to the market versus technology, and timeframe dimensions. Further studies could explore traditions and practices of firms (Thornton & Ocasio, 1999), and their influences of innovations and adaptability to new ideas.

One finding from our case studies was how the established actors became more open to new ideas and also new relationships once their represent interaction partners introduced new technology. For further research, such adaptation processes would be of interest to study in further detail. It would also be interesting to further explore differences in logics among firms in already established relationships and to see whether and how their logics changes.

ACKNOWLEDGEMENT

The authors gratefully appreciate the comments and suggestions of the two anonymous reviewers.

REFERENCES

- Aaboen, L., Dubois, A., & Lind, F. (2011). Start-ups starting up - Firms looking for a network. *The IMP Journal*, 5 (1), 42-58.
- Aldrich, H.E. & Zimmer, E.R. (1986). Entrepreneurship through social network, in D.L. Sexton and R.W. Smilor (eds.), *The Art and Science of Entrepreneurship* (Cambridge: Ballinger), 3-24.
- Almeida, P., Dooko, G., & Rosenkopf, L. (2003). Startup size and the mechanisms of external learning: Increasing opportunity and decreasing ability. *Research Policy*, 32, 301-315.

- Anderson, H., Havila, V., Andersen, P., & Halinen, A. (1998). Position and role - Conceptualizing dynamics in business networks. *Scandinavian Journal of Management*, 14, 167-186.
- Athaide, G.A., Meyers, P.W., & Wilemon, D.L. (1996). Seller-buyer interactions during the commercialization of technological process innovations. *Journal of Product Innovation Management*, 13 (5), 406-421.
- Azadegan, A. & Dooley, K.J. (2010). Supplier innovativeness, organizational learning styles and manufacturer performance: An empirical assessment. *Journal of Operations Management*, 28 (6), 488-505.
- Baden-Fuller, C. & Volberda, H.W. (1997). Strategic renewal. *International Studies of Management & Organization*, 27 (2), 95-120.
- Barley, S.R. & Kunda, G. (1992). Design and devotion: Surges of rational and normative ideologies of control in managerial discourse. *Administrative Science Quarterly*, 37, 363-399.
- Bengtsson, M. & Kock, S. (1999). Cooperation and competition in relationships between competitors in business networks. *Journal of Business and Industrial Marketing*, 14 (3), 178-193.
- Bengtsson, M. & Kock, S. (2000). "Coopetition" in business networks—to cooperate and compete simultaneously. *Industrial Marketing Management*, 29, 411-426.
- Bessant, J. & Tidd, J. (2007). *Innovation and entrepreneurship*, Chichester: John Wiley & Sons Ltd.
- Buur, J. & Matthews, B. (2008). Participatory innovation. *International Journal of Innovation Management*, 12 (3), 255-273.
- Chandy, R.K., Prabhu, J.C., & Antia, K.D. (2003). What will the future bring? Dominance, technology expectations, and radical innovation. *Journal of Marketing*, 67, 1-18.
- Chesbrough, H.W. (2003). The era of open innovation. *MIT Sloan Management Review*, 44 (3), 35-41.
- Corsaro, D., Ramos, C., Henneberg, S.C., & Naudé, P. (2012). The impact of network configurations on value constellations in business markets — The case of an innovation network. *Industrial Marketing Management*, 41 (1), 54-67.
- Desouza, K.C., Awazu, Y., Jha, S., Dombrowski, C., Papagari, S., Baloh, P., & Kim, J.Y. (2008). Customer-driven innovation - To be a marketplace leader, let your customers drive. *Research Technology Management*, 51 (3), 35-44.
- Dhanarag, C. & Parkhe, A. (2006). Orchestrating innovation networks. *Academy of Management Review*, 31 (3), 659-669.
- DiMaggio, P.J. & Powell, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48 (2), 147-160.

- Drucker, P.F. (1985). *Innovation and entrepreneurship*, London: Heineman.
- Dubois, A. & Gadde, L.-E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research*, 55 (7), 553-560.
- Dunn, M.B. & Jones, C. (2010). Institutional logics and institutional pluralism: The contestation of care and science logics in medical education, 1967-2005. *Administrative Science Quarterly*, 55, 114-149.
- Dwyer, F.R., Schurr, P.H., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51, 11-27.
- Ebner, W., Leimeister, J.M., & Krcmar, H. (2009). Community engineering for innovations: the ideas competition as a method to nurture a virtual community for innovations. *R&D Management*, 39 (4), 342-256.
- Ehrnberg, E. & Jacobsson, S. (1997). Technological discontinuities and incumbents performance — an analytical framework, in C. Edquist (ed.), *Systems of Innovation: Technologies, Institutions and Organizations* (London: Pinter).
- Eisenhardt, K.M. & Schoonhoven, C.B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *Organization Science*, 7 (2), 136-150.
- Eisenhardt, K.M. & Graebner, M.E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50 (1), 25-32.
- Ford, D. (1980). The development of buyer-seller relationships in industrial markets. *European Journal of Marketing*, 14 (5/6), 339-354.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58 (2), 1-19.
- Garbarino, E. & Johnson, M.S. (1999). The different roles of satisfaction, trust and commitment in customer relationships. *Journal of Marketing*, 63, 70-87.
- Greenwood, R., Díaz, A.M., Xiao Li, S., & Lorente, J.C. (2010). The multiplicity of institutional logics and the heterogeneity of organizational responses. *Organizational Science*, 21, 521-539.
- Håkansson, H. (1989). *Corporate Technological Change*, London: Routledge.
- Håkansson, H. & Ford, D. (2002). How should companies interact in business networks? *Journal of Business Research*, 55, 133-139.
- Håkansson, H. & Waluszewski, A. (2007). Interaction: the only means to create use, in H. Håkansson and A. Waluszewski (eds.), *Knowledge and Innovation in Business and Industry. The importance of using others* (London: Routledge), 147-167.
- Halinen, A. & Törnroos, J.-Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research*, 58, 1287-1297.

- Hallén, L., Johanson, J., & Seyed-Mohamed, N. (1991). Interfirm adaptation in business relationships. *Journal of Marketing*, 55, 29-37.
- Harrison, D., Holmen, E., & Pedersen, A.-C. (2010). How companies strategise deliberately in networks using strategic initiatives. *Industrial Marketing Management*, 39, 947-955.
- Heikkinen, M.T. & Tähtinen, J. (2006). Managed formation process of R&D networks. *International Journal of Innovation Management*, 10 (3), 271-298.
- Johnsen, T., Phillips, W., Caldwell, N., & Lewis, M. (2006). Centrality of customer and supplier interaction in innovation. *Journal of Business Research*, 59, 671-678.
- Löfsten, H. & Lindelöf, P. (2002). Science Parks and the growth of new technology based firms – academic-industry links, innovation and markets. *Research Policy*, 31 (6), 859-876.
- Lounsbury, M. (2002). Institutional transformation and status mobility: The professionalization of the field of finance. *Academy of Management Journal*, 45, 255-266.
- Low, B.K.H. (1996). Long-term relationships in industrial marketing. Reality or rhetoric? *Industrial Marketing Management*, 25, 25-35.
- MacPherson, A. (1997). The contribution of external service inputs to the product development efforts of small manufacturing firms. *R&D Management*, 27 (2), 127-144.
- Martin, S. & Scott, J.T. (2000). The nature of innovation market failure and the design of public support for private innovation. *Research Policy*, 29, 437-447.
- McCracken, G. (1988). *The long interview*, Newbury Park: Sage Publications.
- Möller, K. & Svahn, S. (2006). Role of knowledge in value creation in business nets. *Journal of Management Studies*, 43 (5), 985-1007.
- Möller, K., Rajala, A., & Svahn, S. (2005). Strategic business nets--their type and management. *Journal of Business Research*, 58 (9), 1274-1284.
- Norrman, C. (2008). *Entrepreneurship policy: Public support for technology-based ventures*, Linköping: Linköping University.
- Öberg, C. (2010). Customer roles in innovations. *International Journal of Innovation Management*, 14 (6), 989-1011.
- Ozman, M. (2009). Inter-firm networks and innovation: a survey of literature. *Economics of Innovation and New Technology*, 18 (1), 39-67.
- Piller, F.T. & Walcher, D. (2006). Toolkits for idea competitions: a novel method to integrate users in new product development. *R&D Management*, 36 (3), 307-318.
- Porac, J., Mishina, Y., & Pollock, T.G. (2000). Entrepreneurial narratives and the dominant logics of high growth firms, in A. Huff and M. Jenkins (eds.), *Mapping Strategy* (Thousand Oaks: Sage).

- Reichstein, T., Salter, A.J., & Gann, D.M. (2008). Break on through: Sources and determinants of product and process innovation among UK construction firms. *Industry and Innovation*, 15 (6), 601-625.
- Robertson, M., Swan, J., & Newell, S. (1996). The role of networks in the diffusion of technological innovation. *Journal of Management Studies*, 33 (3), 333-359.
- Schurr, P.H. (2007). Buyer-seller relationship development episodes: theories and method. *Journal of Business & Industrial Marketing*, 22 (3), 161-170.
- Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal* 50 (1), 20-24.
- Thornton, P.H. (2002). The rise of the corporation in a craft industry: Conflict and conformity in institutional logics. *Academy of Management Journal*, 45, 81-101.
- Thornton, P.H. & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, 105 (3), 801-843.
- Tunisini, A. (1995). The evolution of customer relationships in large high-tech companies: the marketing management implications. *European Journal of Marketing*, 29 (5), 88-89.
- Waluszewski, A. (2011). Rethinking innovation policy. *The IMP Journal*, 5 (3), 140-156.
- Welch, C. (2000). The archaeology of business networks: the use of archival records in case study research. *Journal of Strategic Marketing*, 8, 197-208.
- Wilkinson, I., Young, L., & Freytag, P.V. (2005). Business mating: Who chooses and who gets chosen? *Industrial Marketing Management*, 34, 669-680.
- Vohora, A., Wright, M., & Lockett, A. (2004). Critical junctures in the development of university high-tech spinout companies. *Research Policy*, 33, 147-175.
- von Hippel, E. (1977). Has a customer already developed your next product? *Sloan Management Review*, 18 (2), 63-75.
- von Hippel, E. (1978). A customer active paradigm for industrial product idea generation. *Research Policy*, 7 (3), 240-266.
- von Hippel, E. (1986). Lead users: A source of novel product concepts. *Management Science*, 32 (7), 791-805.
- Yin, R.K. (1994). *Case study research - Design and methods* 2 ed., Applied social research methods series, vol. 5, Thousand Oaks: Sage Publications, Inc.