

## **Start-ups initiating business relationships: process and asymmetry**

### **Abstract**

**Purpose:** To develop an understanding of how start-ups initiate business relationships and to identify the subprocesses that characterise business-relationship initiations in a start-up context.

**Design/methodology/approach:** The paper builds on business relationship–initiation models, develops a theoretical framework of relationship initiation and its subprocesses and, in a multiple-case study, applies this framework to seven relationship initiations by start-ups.

**Findings:** The key findings of this study describe the process of business-relationship initiation by start-ups, which comprises six subprocesses. Our detailed and structured initiation-process analyses show how the initiation process occurs in a start-up context and how start-ups develop their relationships. Our analyses also reveal typical patterns and critical issues, such as asymmetry, that characterise start-ups' business-relationship initiations, particularly with bigger players.

**Theoretical implications:** This paper develops a model of the relationship-initiation process, uses it in a start-up context and identifies the critical characteristics, including asymmetry, of start-up initiations; these contributions address both the literature on start-ups and the literature on relationship initiation and development.

**Originality/value:** This paper is the first to focus on how start-ups initiate business relationships; previous studies of business-relationship initiation have focused on mature firms. Using the industrial marketing and purchasing approach, the paper contributes to shifting the focus from interactions between resource entities to relationship-initiation processes in the context of start-ups.

**Keywords:** Start-up; customer; relationship; development; initiation; process

**Article classification:** Research paper

## **Introduction**

The development of start-ups has been regarded as important for creating economic wealth and technology transfer (Autio, 1994; Clausen and Rasmussen, 2013). One stream of research has focused on start-ups originating from universities, addressing the various factors of their growth and development (e.g., Rothaermel, Agung and Jiang, 2007; Vohora *et al.*, 2004), such as access to various resources (Lockett and Wright, 2005) and overcoming the liabilities of newness (Rao, 19994). Despite the substantial interest in research and practice, many start-ups do not generate revenue for many years, and some never do (Fini *et al.*, 2016). In order to generate revenue, a start-up needs customers. Researchers have called for studies of the interactive aspects of start-up creation and development (Shepherd, 2015) and the networks that are part of this process (Fayolle *et al.*, 2016; Medlin and Törnroos, 2015; Slotte-Kock and Coviello, 2010).

Although few studies have applied the industrial marketing and purchasing (IMP) perspective to start-ups, scholarly interest in doing so increased when the “traditional” field of entrepreneurship shifted towards the use of external factors and development processes as explanatory factors (Snehota, 2011). Start-up research using the IMP approach has analysed how start-ups establish their positions in the network by initiating relationships with suppliers and customers and how these interactions shape the development and position of a given start-up (e.g., Aaboen *et al.*, 2016). These studies have been complemented by research that explores the interactions that take place before the start-up and the product are fully developed and before the customers’ specifications are ready (e.g., La Rocca *et al.*, 2013). Such studies typically conclude that as a result of a start-up’s early interactions, it learns how to fit into (or add to) the customers’ resources and how to interact with customers (e.g., Aaboen *et al.*, 2011). Previous start-up studies have argued that the development of start-ups depends on their embeddedness in the development, production and use settings (e.g., Ciabuschi *et al.*, 2012; Ingemansson and Waluszewski, 2009; La Rocca and Perna, 2014; Perna *et al.*, 2015). To accomplish this embeddedness, the new solution offered by the start-up must be interfaced with other products that are already in use and are being produced, supplied, marketed and sold (Perna *et al.*, 2015). For a start-up, however, it may be particularly important to understand the interplay between business-relationship initiation and the interaction between resource entities, because the product idea is often transformed into the first product concurrently with the initial customer relationships. Start-up-related studies have not yet analysed how business-

relationship initiation occurs or what challenges and issues complicate this process. The emerging IMP literature on start-ups would therefore benefit from cross-fertilisation with the literature on business relationship–initiation processes. The research on business-relationship initiation (e.g., Edvardsson *et al.*, 2012; Valtakoski, 2015), as well as that on relationship development (e.g., Batonda and Perry, 2003; Dwyer *et al.*, 1987; Ford, 1980; Polonsky *et al.*, 2010), has tended to focus on relationship building between mature firms rather than on start-ups, whose smallness and novelty (e.g., Partanen *et al.*, 2014) suggest an asymmetric relationship with bigger firms. Furthermore, this research has seldom analysed initiation, as a process, in detail. Thus, business-relationship initiations by start-ups are poorly understood (Aaboen *et al.*, 2017). This paper aims to fill the identified research gaps by answering the question, *How do start-ups initiate their business relationships?* First, we address the initiation process and the elements of that process that are relevant when start-ups initiate business relationships. We assume that as start-ups initiate relationships with bigger players, the inherent asymmetry shapes the initiation and its process; this phenomenon represents the study’s second focus.

This study will address its research question by building on relationship-development-and-initiation research, developing a model of the initiation process and conducting a qualitative multiple-case study. The framework used here to analyse how start-ups initiate their relationships consists of subprocesses that were identified in the models taken from the literature. The study’s intent is to contribute to start-up research using the IMP approach and to extend the relationship-development literature by outlining the process and issues that characterise relationship initiation by start-ups. The structure of the paper is as follows. The section on the theoretical frame of reference focuses on the business relationship–initiation literature; this section also outlines the initial states described in the business relationship–development literature and aims to capture, in detail, what happens during initiation. The later states are less relevant for the purposes of this paper, because by the time the business relationships have entered a long-term state, with regular business exchanges, the start-up will most likely no longer be a start-up. The data-collection phase of the multiple-case study is explained in the paper’s methods section. The analysis covers seven relationship initiations. Each of these relationship initiations involves a different start-up, but the potential customer is always the same multinational company; this design provides a good opportunity for contrasting the different initiation processes. The paper analyses seven relationship

initiations, compares them and investigates their subprocesses. Insights into relationship initiations by start-ups will be identified in the discussion section. Finally, the paper presents its theoretical contributions, practical implications and suggestions for future research.

## **Theoretical frame of reference**

### *Relationship initiation*

Because the paper's aim is to examine how business relationships are initiated by start-ups, the first section offers a discussion of what the literature says about initiations. In relationship-development-and-initiation research, authors have labelled the initiation phase with diverse terms, such as "forming", "building" or "creating" relationships or as the "birth" or "emergence" of relationships (Edvardsson *et al.*, 2008; Frazier, 1983). Although the literature seldom presents a clear definition of initiation, Edvardsson *et al.* (2008, p. 3) defined the term as follows: "[Initiation] starts when the companies in a potential relationship recognize each other and ideally ends when a business agreement is reached". In this study, the initiation of a business relationship is understood as a dyadic process at the organisational level, starting with awareness and ending in an agreement, order or assignment that may lead to a business relationship.

Researchers have adopted vague definitions for the starting point. Among these definitions, the most established include a need for (Frazier, 1983), interest in/search for (Wilson, 1995) or awareness of (Dwyer *et al.*, 1987) a feasible exchange partner. The initiation, as such, is a difficult phase to study, because it has many potential beginnings (Holmen *et al.*, 2005); it is also difficult to determine which particular contacts between the parties bring about the initiation of the relationship (Andersen, 2001; Holmlund and Törnroos, 1997).

### *Relationship initiation as the first states of relationship development*

In the literature on business-relationship development and initiation, several models have been developed. These models consist of multiple stages, states or phases. Stage models assume that all relationships progress through all stages of development in an irreversible manner, whereas state models view the process as an evolution of unpredictable states, such that each state is only the condition that holds at a given point in time (Batonda and Perry, 2003). This use of the term "state" is very similar to Edvardsson *et al.*'s (2008) and Polonsky *et al.*'s (2010) use of the terms "status"

and “phase”. Whereas the state models tend to emphasise the different states of the relationship, status models focus on the forces affecting which status the relationship initiation currently has. Early relationship-development models (e.g., Dwyer *et al.*, 1987; Ford, 1980) posited a linear movement through relationship development via stages. The first stage was termed “initiation”; the latter stages were described as a sequential progression of change processes (Dwyer *et al.*, 1987; Ford, 1980). More recent models have moved towards the view that the relationship can develop multidirectionally between states (e.g., Batonda and Perry, 2003; Edvardsson *et al.*, 2008; Halinen, 1997). The dormant state (Batonda and Perry, 2003) implies that the relationship can be “initiated” between actors that have been in contact before. Polonsky *et al.* (2010) expanded on this notion by positing their de-actualisation phase; relationships can move to or from this phase at any phase of the relationship. All of these models, despite their different emphases, assume that an initiation launches a relationship that is then developed further. The business relationship–initiation literature is summarised in Table 1 below.

**Table 1.** Subprocesses identified in the relationship-initiation literature.

Author/model	Phase considered to be “initiation”	Subprocesses identified in the description of the phase
<b>STAGE MODELS</b>		
Ford (1980) / Buyer–seller	Prerelational stage	Evaluation and reducing distance
	Early stage	Negotiation
Dwyer, Oh and Schurr (1987) / Seller–buyer	Awareness phase	Building awareness, one-way communication
	Exploration phase	Attraction formulated, bargaining, expectations built, future goals tested
Mandják <i>et al.</i> (2015) / Business relationships	Awareness → initiation	Personal reputation, prior relations, referral, network position, attractiveness, goodwill and visibility trigger initiation
	Conditions needed to build a relationship	Social-exchange episodes for bonding and trust at the individual level and information-exchange episodes at the organisational level
<b>STATE MODELS</b>		
Halinen (1997) / Buyer–seller	Preconditions	Attraction, awareness of other party’s goals, needs and resources, common interest in building a relationship
Batonda and Perry (2003) / Interfirm network relationships	Searching processes	Recognition of the need to enter into a relationship, searching for potential partners from outside and inside sources, finding information and checking partners’ competence, looking for a match between buyer need and supplier capability, evaluation and selection of partners based on social and economic attributes, activating business relationships from personal relationships
	Starting processes	Making initial contact through direct visits, direct contact or introduction by a trusted third party, presenting the purpose/opportunity, testing of personalities, goals and compatibility of partners
<b>STATUS MODELS</b>		
Edvardsson <i>et al.</i> (2008) / Buyer–seller	Unrecognised status	The parties do not know one another, or the buyer does not recognise the seller
	Recognised status	One- or two-sided awareness and the building of social relations
	Considered status	Negotiations
Polonsky <i>et al.</i> (2010) / Buyer–seller	Exploration phase	Preinitiation activities, becoming aware of one another, investigating the relationship’s potential, analysing one another’s actions
	Actualisation phase	Approaching one another, learning about and understanding of responsibilities
	Inactive / dormant phase	End of active engagement, progressive and regressive energy
	De-actualisation phase	Perceived value is low and regressive energy prevails; chance to reinvigorate
<b>OTHER MODELS</b>		
Frazier (1983) / Interorganisational marketing channels	Initiation process	The motive or need arises, scanning potential intrinsic and extrinsic rewards, information gathering
Wilson (1995) / Buyer–seller	Search and selection (and defining purpose)	Performance scanning, social bonding, communication to establish comparison level, trust creation, expectations, screening mutual goals and shared values
Ring and Van de Ven (1994) / Interorganisational relationships	Emergence of relationships	Negotiation processes: expectations are formed; commitment processes: rules and contracts are established for future actions; execution processes: commitments are put into effect
Wilkinson <i>et al.</i> (2005) / Business mating	“Dance invitation”	Matching
Valtakoski (2015) / Buyer–seller	Initiation	Relevance of trust creation, particularly with the risky offering: the buyer evaluates the riskiness, and seller can lower the risk through solution definition, service standardisation and product demonstration or increase the buyer’s trust with customer references, continuity, brand or personal relationships

Furthermore, if initiation is considered a process, it is also relevant to discuss what facilitates this process. The extant literature has suggested that multiple entities – actors and other entities in the network, but outside the emerging dyad – can facilitate relationship-development-and-initiation processes. The literature summarised in Table 1 indicates that many entities, such as individual persons, organisations, artefacts and other business relationships, can facilitate the emergence and initiation of business relationships. Aarikka-Stenroos and Halinen (2007), for example, defined 12 roles that a third actor (one type of contributor) can have during the initiation: scouter, awareness builder, need creator, access provider, accelerator, advocate seller, matchmaker, trust builder, evaluation assistant, expectations builder, risk reducer and provider of concrete evidence. Ritter (2000) conceptualised a mediation effect in connected relationships, showing how other actors can trigger or facilitate the initiation of new relationships through referrals and introductions. Regarding the search for information and becoming “linked”, authors have found that prior relations, referrals, references and introductions by trusted third parties matter (e.g., Mandjak *et al.*, 2015; Aarikka-Stenroos and Makkonen, 2014; Batonda and Perry, 2003). Contributors may facilitate the initiation process actively or passively, at either the dyad or network level.

The initiation process can also be understood in the light of research streams other than the relationship-development literature. Because the initiation of a business relationship encompasses the roles of both buyer and seller and their respective business tasks, both the organisational-buying and the sales-research streams enrich relationship initiation from a non-interactive perspective. Initiation acts and episodes have been identified in the sales literature (e.g., Dixon and Adamson, 2011; Moncrief and Marshall, 2005), which suggests that sellers screen and evaluate potential customers and search for information about them, build awareness among potential customers through various communication activities and approach potential customers (and use existing relationships) as evidence of trustworthiness; such studies have also maintained that the process may include educating the customer. From the buyer’s perspective (cf. Johnston and Lewin, 1996; Aarikka-Stenroos and Makkonen, 2014), initiation can be related to recognising a need; information gathering; identifying, evaluating and choosing among alternatives; specifying the need and using risk-lowering tactics. Because today’s business firms’ relationships must enable

complex exchanges, parties are pushed to expend effort to define both needs and offerings (Aarikka-Stenroos and Jaakkola, 2012; Valtakoski, 2015). Initiation is presumably shaped by the distribution of power between the actors (e.g., Ring and Van de Ven, 1994).

The issue of asymmetric relationships between large customers and small suppliers has been studied from the IMP perspective. These studies have tended to focus on power structures, sets of characteristics and relationship-development processes (Munksgaard *et al.*, 2015). The characteristics that have been studied include mutuality, particularity, cooperation, conflict, intensity, interpersonal inconsistency, power/dependence and trust (Lee and Johnsen, 2012). The focus has been on how asymmetric relationships should be developed in order to become beneficial long-term relationships for both parties. Studies of development over time, such as Lee and Johnsen (2012) and Munksgaard *et al.* (2014), have borrowed from stage theory (Ford, 1980), examining how asymmetric relationships develop in the exploratory, developing and stable stages. What distinguishes these studies from other IMP research, which also addresses long-term collaborative relationships, is that they assume asymmetric relationships are particularly challenging for the smaller party. For instance, Chen and Chen (2002) warned that in asymmetric relationships, the smaller partner may invest in a large number of relation-specific assets in order to gain the trust of the larger partner and may thereby make itself hostage to the relationship. However, as argued by Munksgaard *et al.* (2015) the uneven distribution of power may be an important issue but not a hindrance in achieving effective interaction in asymmetric relationships. Collective interest, as the conjoint self-interest of both parties in the relationship, is an important step towards collaboration, because “firms will join their resources with the aim of each achieving their own economic goal for the relationship and these goals will motivate firms to jointly act for reaching better relationship performance” (Munksgaard *et al.*, 2014, p. 3). However, the interests of the larger party tend to influence the collective interest in asymmetric relationships (Medlin, 2006; Munksgaard *et al.*, 2015).

#### *Outlining the subprocesses of initiation in business-relationship development: Towards the framework*

Based on the literature reviewed above and particularly Table 1, we developed a conceptual process model of initiation that shows the dynamics of initiation as well as several relevant subprocesses.

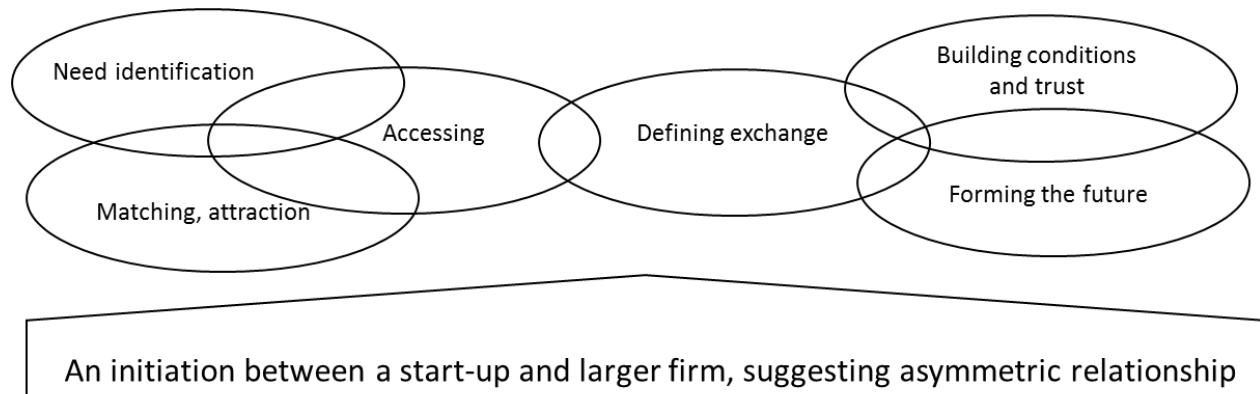


The model allows for a structured investigation of business-relationship initiation by start-ups. It comprises six initiation subprocesses (see Figure 1), which are discussed next.

First, **identifying the need and recognising an opportunity for mutual business** is an initiation-process element, because several of the models mention the search process. Another element is **identifying a matching, attractive partner**. Mature firms continuously, and more or less actively, scan for alternative suppliers, offerings and trends, while sellers send out marketing messages and prospective deals for new customers. Awareness and attraction, however, are not sufficient for initiation; the parties also need to succeed in **accessing one another**; only after this occurs will the parties be able to move towards closer dialogical interactions that involve serious mutual negotiations regarding the economic content of the exchange. The parties can then begin to establish operating conditions; that is, they **form and define the content of their potential exchange**. Their lack of mutual understanding or deep familiarity with one another, however, makes the initiation fragile during this phase; as a consequence, the initiation can easily be terminated (cf. Edvardsson *et al.*, 2008). This key process requires unilateral evaluations of both the intended content and the type of exchange and relationship, as well as mutual dialogue in which the parties communicate their perceptions of and requirements for the exchange and relationship in order to build mutual understanding and diminish the distance between their respective sets of intentions. Expectations and intentions regarding the potential exchange are consequently formed and elaborated on, and commitments are mutually developed. The initiating parties then begin to **build conditions for operating and create trust**. As the initiation progresses, distance is thus reduced, creating mutual understanding. The parties also begin to **form the future of their potential relationship (long-term relational expectations and compatibility)** on the basis of organisational strategic matching, common goals, personal compatibility and the long-term benefits of the relationship, such as monetary, reference and learning values (e.g., Ford, 1980; Ulaga and Eggert, 2005).

The models summarised in Table 1 differ in terms of how the division between the phases is made and the model's degree of flexibility regarding movement between phases. The suggested framework (Figure 1) provides the basis for a structured analysis of the key process elements drawn from the relationship-development models in the start-up literature. Moreover, because the

framework also acknowledges the special contextual characteristics, such as asymmetry between the initiating start-up and larger firm, it simultaneously allows the data to provide more information about the movement between states and the context. These aspects are explored further via a multiple-case study.



**Figure 1.** Subprocesses of initiation between a start-up and a larger firm.

### Methodology

Because this study’s purpose is to analyse how start-ups initiate their relationships, it uses a case strategy to investigate initiation processes as dynamic phenomena in their own context. The study applies a multiple-case strategy, which allows for a detailed analysis of the individual initiation processes as well as a comparison of them, in which their general patterns and issues can be identified. On the basis of these patterns, in turn, a theory can be developed. The relationships initiated by the start-ups are customer relationships, product-development partner relationships and investor relationships.

All the start-ups described in this paper originate from the Norwegian University of Science and Technology (NTNU) and a large research institute (Sintef) that is co-located with NTNU in Trondheim, Norway. All of these start-ups initiated a relationship with a large multinational company in the region, to which we have given the code name BIG. The products that the start-ups aimed to commercialise were all technology-based but were located in various industries, such as materials, software, biotech and surveillance. Some of the start-ups were members of BIG’s supplier-development programme (SDP), which provides funding, technical expertise and piloting support to start-ups. Although some of the start-ups that were interviewed mentioned that BIG had

ownership over them, the 2016 version of the programme does not involve taking an ownership stake in start-ups. According to BIG, 75% of the technologies that have been developed as part of the programme have reached the market since the programme was founded in 1991.

### *Data collection*

In the case study, data gathering was conducted via qualitative in-depth interviews. In order to identify the relationship initiations to be studied and capture the initiation processes, employees from 12 start-ups and three BIG employees were interviewed. Thus, our data comprise 15 interviews conducted between 2012 and 2014. The start-up interviews were conducted in late 2012 and in 2013 as part of a longitudinal study of the start-ups; the BIG employees were interviewed in 2014. The interviewees from the start-ups were recruited for the study by using lists of alumni firms from the NTNU School of Entrepreneurship, several incubators, the Connect Foundation and Innovation Norway. The firms on the lists were looked up online; employees of the firms were interviewed if the firms were still in business, had found their first customers and were willing to participate in an interview. The interview guide for the start-ups had an introduction regarding start-up development and important contacts during this development process; this introduction was provided before moving on to the main part of the interview. The main part of the interview started with questions regarding the very first customer of the firm, how contact was achieved, how the relationship had developed in terms of the meetings that had taken place, what had been discussed during the meetings and what interactions and activities had taken place between meetings. The researcher then proceeded to investigate each additional customer relationship in the same manner. There were also questions about the connections between the various customer relationships. Before the final part of the interview, the interviewee was asked to reflect on all their customers in order to relate which customers were most important in the development of the start-up, in what ways they were particularly important and whether these customers were different from the other customers in any other ways. In these interviews, BIG was almost always mentioned. This was surprising, because having a relationship with BIG was not a selection criterion, and not all of the start-ups were operating in the same industry as BIG. When BIG was described as a customer, it was almost always referred to as the most important customer. Table 2 summarises the types of relationships initiated by the seven start-ups that had the most substantial interactions with BIG. In addition to interviews, secondary data, such as supplementary reports and written presentations about the start-ups and the SDP, were also collected. This data includes articles from

the business press and newspapers, press releases, printouts of Web pages and PDFs that the start-ups and BIG published, such as a “slideshow” and a “venture showcase” from BIG’s Technology Investment department, and information from other types of organisations, such as Innovation Norway.

The BIG interviewees were employees who occupied positions relevant to start-up initiations, namely the individual responsible for the SDP at BIG on the national level and two business developers involved in the SDP in Trondheim. The SDP is also a part of the larger BIG organisation, with which several of the start-ups had been in contact at some point in the past. Thus, the interviews with and other information gathered from the BIG employees provided data about the initiations of all 12 start-ups. The interview guide for the BIG employees was designed to capture the other side of the relationships. The introduction focused on employees’ descriptions of the SDP and of other start-up-related activities in which they were involved. The interviewees were then asked to describe their interactions with start-ups with probing questions, such as “What happens next?” and “Could you mention some examples of this?”

Due to the semistructured nature of the interviews, the interviewees were able to speak rather freely regarding their view of the start-up and the SDP (Kvale, 2001). The interviews were conducted in the offices of the start-ups, with the exception of two start-ups that were interviewed using Skype and GoToMeeting. All interviews lasted about an hour and were conducted and transcribed by one of the authors; the quotes have been translated into English and very lightly edited for clarity and grammar.

The data collection generated information on 12 start-ups’ initiations, all of which was originally part of the analysis. The final case-sampling principle was to analyse and compare start-ups’ initiations with BIG, the one attractive key player in the field, in order to then examine the initiation process as it occurs in asymmetric relationships. Thus, we excluded initiations that were made with other players, and the results section will summarise the relationship initiations of the seven start-ups that were most clearly initiating a business relationship with BIG (Table 3). One of the excluded start-ups, for example, initiated a business relationship with the retail sector of BIG. The final set of cases is presented in Table 2.

**Table 2.** Information about each start-up (SU). Team size (which varies over time) and first year (which is difficult to determine) of SUs are approximate.

Start-up	Background information	Start-up's role in relation to BIG: potential supplier, customer or complementor
SU1	- Product, industry - Team size, first year - Equipment for offshore wind power, Energy - 2, 2010.	Complementor
SU2	- Material for improved acoustics, Offshore and construction - 1, 2005.	Subsupplier
SU3	- Software for equipment for subsea mapping, Software - 1 and a few part-time, 2011.	Subsupplier
SU4	- Software for safety solutions, Offshore and transportation - 12, 1999.	Supplier
SU5	- Equipment for temporary oil-drilling facilities, Offshore - 1, 2005.	Subsupplier
SU6	- Software for construction, Offshore and wind power - 19, 2003.	Supplier
SU7	- Software for finding oil, Offshore - 1–2, 2005.	Supplier

### *Data analysis*

The analysis of data can be divided into two phases: within-case and cross-case analysis. The analysis began with data reduction (Miles and Huberman, 1994). The first step in this reduction was to decrease the data contained in the pages of transcribed interviews and additional data. This was done by extracting the dimensions connected with BIG and relationship initiation and sorting the data accordingly. This coding of the data was conducted by the same author who conducted the interviews in order to ensure that the contextual information was interpreted correctly (Pratt, 2009). The dimensions were the subprocesses presented in the theoretical framework. All data that

supported or refuted the various dimensions were placed within correlating dimensions. This helped organise and compress the assembled information and permitted the first findings to be drawn. This meant that the transcripts were organised so that all data that referred to a particular customer relationship were placed under the same heading and then structured chronologically. The focus of the within-case analysis was capturing the focal start-up initiation and analysing its process and subprocesses by identifying initiation subprocess elements, marking them and organising/analysing them with regard to initiation subprocess elements and other issues. This was done in order to capture nonlinear relationship initiations and understand the patterns of events in a manner resembling the visual-mapping strategy described by Langley (1999). The cross-case analysis phase then focused on comparing the cases with regard to the initiation process in general, the subprocesses that occurred and other issues that shaped the start-up initiation patterns.

### **Start-ups initiating relationships with BIG**

This section provides a discussion of the findings related to start-ups' relationship initiations with BIG. The seven start-ups' initiation processes (SU1–7) are summarised in Table 3. First, the findings regarding the individual initiations are presented. Table 3 provides an overview of each initiation process, the subprocesses that occurred and other issues and factors that constituted individual initiations. Next, the findings on more general patterns within start-up initiations are presented.

#### **SU1**

The idea for the product came into being when the two original team members were students. They made a cold call to BIG and asked whether the company had any problems that needed to be solved. This initial contact continued during the project, because the person to whom they first talked mediated a contact with the person who took over the position later. The person to whom they were handed over did the same thing when it was time to change jobs, and in this way, the initial contact with BIG continued, even though their contact person at BIG changed several times. The founder of SU1 explained that “they change positions [frequently]; it has been a bit frustrating because you lose a lot of what you’ve established, especially if you have an established relationship with someone, and then, you have to initiate a relationship with someone new”. A second contact was

made with BIG when SU1 needed an advisory board. SU1 then called people in BIG with whom they were already acquainted through previous employment and who had joined the advisory board of SU1. SU1 applied to the SDP and received funding because the product they pitched was perceived to be one that would be profitable in the long term. BIG wanted to develop an actor that could contribute to competition among their suppliers. The funding through the SDP generated additional funding from Innovation Norway, which became the largest source of funding for SU1. During SU1's time in the SDP, there were also representatives from BIG on the project team. The manager of SU1 described the situation in the following way: "They contributed in a way, both on the advisory board and on the project team. . . . But they were not operative. They did not sit next to us, doing the calculations; they did not do that – we did all the calculations". For instance, BIG contributed to the funding of the prototype and pilot test, but they did not participate during the testing, except for a BIG representative who stopped by. In addition to the already-mentioned contacts and project participants, SU1 had access to other people in the BIG organisation. "As we were asking questions, different people were contacted; after a while, we had talked to several different people within BIG", said the founder of SU1. These people were mostly from the technical departments. SU1 was also in contact with the commercial department, which made all decisions related to the programme and financial support. SU1 decided to pause the development of their firm, because they perceived that their potential market was underdeveloped. The founder of SU1 explained that "at the moment, it is not possible to get an overview of who the customer is and who the supplier is, even though we speculate about it. BIG plays many of these roles right now, but they are not supposed to do so later on". One of the two founders is now working at BIG, and the other has another full-time job. Even though SU1 is not sure exactly how their market will be structured, they know it will be capital intensive. SU1 still has funding from Innovation Norway and business angels left, but SU1 will not use this funding until they know which actors can potentially team up with them to bring their prototype to market.

## SU2

SU2 generated its product idea while its founders were still students at NTNU, where SU2 was part of the School of Entrepreneurship. SU2 delivered its product to companies from several industries. In 2009, one of the suppliers of BIG phoned SU2, saying, "We have a description of a product here; does it exist?" It did not exist, but the start-up then made a metal version of its product

specifically for BIG. Because the product was going to be used offshore, a lot of documentation was needed. The supplier specified the documentation that was needed. The project was rather time-consuming and the price of the product therefore rose steeply, but this did not seem to be a problem for BIG. After this first delivery, SU2 did not hear anything from BIG. Meanwhile, the professors at the university who had been involved in the initial product development decided that SU2 needed a little extra push in the market. Therefore, in their presentations and written documents, they started to use the SU2 name in connection with the technology on which the products were based. After a while, another of the suppliers of BIG phoned. The suppliers of BIG are usually rather demanding; as one of the interviewees noted, “We have received questions like: ‘Can you satisfy B15’? And then, I have to find out what B15 is. It’s an extreme fire test”. B15 was an extreme fire test, and it was difficult for a small firm like SU2 to conduct all the tests necessary to satisfy B15 and similar requirements. This sometimes reduced their chances of winning the bids. In parallel with these relationships, SU2 was participating in bids for large projects that involve BIG: “These projects are also BIG-related: several million [NOK]. If we could get one of those, then we could start hiring people, or rather, we would rehire my friends who had to leave”. However, when three projects had been delivered to BIG, SU2 had still not been able to rehire any employees. The documentation connected with the projects was very demanding for the single employee, but this documentation was still considered to be more straightforward than the documentation demanded by, for example, the Korean customers.

### SU3

SU3’s product was based on the results of a PhD thesis, and BIG was involved in the technology development in the project. The researcher and the university decided to start SU3, and from the start, BIG was viewed as a potential customer. The first contact with BIG concerned a few BIG researchers whom the SU3 researcher knew from the PhD thesis project. To be admitted to the SUP, SU3 first needed to receive a letter of intent from BIG’s suppliers in which they stated that SU3’s product could be included in their product portfolio. SU3 reported that this relationship with the suppliers was very useful because the suppliers dedicated a great deal of resources to interacting with SU3 in order to learn about its product. During the workshops, employees from the technical departments, as well as from the commercial departments and management, were present and gave SU3 feedback about its product. In order to facilitate the meetings, BIG provided SU3 with the



suppliers' contact information. As the business developer of SU3 recalled, "It was like that: 'You can call them and say hello from me.' It was very useful . . . when I called and said that I had spoken to this person at BIG and can I come and meet you, then they just said, 'Yes! We have a contract worth 60,000,000 NOK; of course, if BIG says jump, we jump'". SU3 visited the suppliers and presented their product. During the workshops, SU3 received useful input on the product and how the supplier structure worked, as well as the needed support letters. After one and a half years, the innovation department had received the answers they needed about the potential value of the product, and SU3 was then admitted to the SDP. A project was formed to develop the idea into a product, with BIG playing the role of a "demanding customer". The product was funded by BIG, Innovation Norway and SU3. The business developer of SU3 explained that each party contributed 3,000,000 NOK and noted that "if we have a share issue this year, BIG's financial support will be converted into stocks in the firm or a royalty. It was X percent of each future sale. Those were the two options . . . so it is not like we have been given the money. It is not support that they're giving to us out of generosity: it is an investment". As part of the SDP project, the number of contacts in BIG increased from the original researchers and the innovation department to about 30 contact points in Trondheim, Bergen, Stavanger and Haugesund who were relevant to the development of the product. However, as explained by the business developer of SU3, "BIG has so many employees that many people there have the time to meet you, have a cup of coffee and give you some good advice, but they do not have any[thing at stake] . . . they do not really become affected if you do not succeed". A steering committee for the project was formed, and BIG also promised to provide two test sites for the product. As the project was coming to an end, the product had only been tested using university equipment, and the start-up itself paid for that testing.

#### SU4

The founder of SU4 had previously worked at a research institute and developed the product in response to a poorly handled train accident. The content of the safety solution was based on procedures previously used in industry, mainly the offshore industry. SU4 combined the methods and adjusted them to best practices through a great deal of programming. This made it easy to adjust the product to different industries and customers. Originally, SU4 had customers only in the transport sector, but because there is much more money in the offshore industry, SU4 decided to approach potential offshore customers. The first offshore project was in the oil division of a large

Norwegian company. The business developer of SU4 explained that “we delivered a very good result, and then, we got additional projects there”. When BIG bought the oil division to which SU4 was delivering, it suddenly had BIG as a customer. Initially, BIG was unwilling to use the SU4 solution and preferred to use its own solution. After much “dialogue and fighting”, BIG started to use the SU4 solution throughout its organisation. The business developer stated that “we deliver to the first, second and third levels of the organisation”, that is, to production, administration and management. As the business developer noted, “BIG is currently in the roll-out phase: 48 second-level organisations globally, plus third-level organisations, including the CEO”. SU4 worked in close collaboration with its customers and arranged user forums that the customers took turns hosting. During the forums, the customers shared experiences and provided input to SU4. BIG and some of the other customers, for instance, requested that SU4 create a new media module in the product. In addition, SU4 collaborated with BIG on several ongoing projects and areas of development in order to tailor the product to BIG’s way of working. Furthermore, BIG participated in research projects led by SU4. According to SU4’s business developer, “We had a research project from 2011 to 2015 that was a four-year project. The research council was the funding partner”. A research partner and several customer partners were also included in the project: “We explore the future of this area. They [the customer partners] do not participate with money; they participate with how they use . . . in other words, what they do”. BIG was SU4’s most important customer.

## SU5

BIG was one of the two investors that originally enabled the founder to transform his product concept into a firm. In addition, the founder had also been working as a consultant at BIG, both before starting SU5 and during the time SU5 had been in existence. BIG first financed a possibility study and then continued to support the project. The first contacts from the 1990s had been maintained, and more contacts had been added, mostly from the geotechnical and offshore departments. The contact persons were not part of the project but provided research support and financial support. A few trials in the fjord and the North Sea were supported by BIG before SU5 joined the SDP. The founder of SU5 explained that “when the programme was started, the contact between our firm and BIG was strengthened because there were many contact points. . . . Many departments were involved within the programme”. During SU5’s time in the programme, BIG

and Research Council Norway sponsored offshore tests of the product: “A project application is sent to the research council, and they usually provide 25 percent; if it is accepted by the research council – and usually it is accepted – then BIG intends to provide financing if we can obtain additional funding from other actors, and that is what happened”. The offshore pilot project was very important for SU5’s ability to qualify the product. Rules stipulated that the product had to survive 10% of its estimated survival time in order to qualify, and it had been offshore for three out of the estimated 25–30 years. SU5 hoped to become a supplier to one of BIG’s suppliers. Although SU5 had to contact the suppliers on its own, BIG facilitated the process through its procurement. As the founder of SU5 explained, “It states in the tender documents that BIG must offer both our solution and the traditional solution. It is BIG that has dictated that there should be two. However, the suppliers are allowed to come up with a solution [like ours] of their own”. SU5 was part of several bids, but the decisions in these projects would not take place until a year after the time of the interview. SU5 therefore needed to find ways to remain in business until then. Another advantage of having qualified the product according to BIG’s rules was that this qualification could also be used in contacts with other potential customers: “[Another large company will say to us], ‘if BIG has approved it, then it’s okay for us’”. SU5 chose to convert the financial support from BIG into making BIG a shareholder in the start-up. In the words of the founder of SU5, “BIG owns about 20 percent, but then BIG wanted to exit and started talking about selling to a larger actor . . . they like to be part of the start-up phase, but they have no interest in being a permanent owner, so they want to exit the market”. BIG then mediated SU5’s contacts with a firm that assumed the task of identifying potential buyers.

## SU6

The initial idea for SU6’s product appeared in a 1983 dissertation. After a few previous attempts, the current SU6 was formed in 1999 and initially focused on the automotive industry. In 2003, SU6 decided to approach the oil and offshore industry instead, and to offer both software and services. An employee at SU6 knew someone from a large Norwegian company whom SU6 could use as a starting point for finding relevant contacts in the company. The oil division of the large Norwegian company understood what SU6 could do the first time they talked to them and gave them a small analysis project. This project soon led to more projects in the oil division of the large Norwegian

company. In 2005, SU6 was given a project that the large Norwegian company estimated SU6 would solve in a month. However, that project turned out to be much more complex than first estimated and was still ongoing when BIG acquired the oil division of the large Norwegian company – and was still ongoing 10 years later. Through this project and others that were ongoing at the time of the acquisition, SU6 was able to demonstrate its knowledge to BIG. The business developer of SU6 explained that “it was a project at the division that continued after the merger. Then, we already had a foot in the door, and we had a lot of know-how, so we continued”. There had been several new projects at BIG since the acquisition. Usually, two or more projects operated in parallel. “We have several contact points. BIG functions like completely different customers, actually”. The smallest projects were usually worth 100,000–200,000 NOK, and the largest were worth several million. As the business developer noted, “We have developed a lot of software that we have financed ourselves but that we use to carry out the work”. BIG was an important customer, because it represented 70% of the turnover at SU6. At the time of the interview, SU6 was also collaborating in a research project with BIG and other partners. In 2009, it was decided that SU6 should also focus on wind power. It was relatively easy to develop a tool for wind power based on the products SU6 already had. Although there was less money in the wind-power industry, it was a strategic decision on the part of management not to focus exclusively on the oil and offshore industry.

## SU7

Much like SU4 and SU6, SU7 originally had a relationship with the oil division at the large Norwegian company that BIG acquired. According to the founder of SU7, this initial contact was very important for the start-up: “The first year, it was this single contact that provided all project activities [for my start-up] . . . well, not all, but maybe 80 or 90 percent”. It was also this oil division that co-financed SU7’s first technology project. SU7’s contact belonged to a small group of experts in search technology and petroleum systems, and this group of experts was still using the SU7 technology. SU7 interacted with these experts every now and then, and they collaborated on projects together. When the projects were ongoing, meetings were held rather frequently, but there were periods without projects as well. “BIG has received a number of product licenses for free because they participated in the development [of the products]”. Furthermore, the founder of SU7

worked at BIG in the 1980s and therefore had other BIG contacts. The founder also had previous colleagues from BIG who had begun to work for smaller oil-searching companies that became customers of SU7. BIG and an Italian oil company were the only two customers that bought this technology from SU7. The other customers bought the use of the technology as a consultancy service. Both BIG and the Italian customer wanted exclusivity. According to the founder of SU7, “They wish to keep it [the technology] exclusive because they want to be better than others, but if nobody knows what you’re doing, it doesn’t help to be better than others”. BIG and another customer also participated in a technology-development project that received public funding. In an effort to make decision makers aware of their technology, SU7 planned to sell the results to many customers and to use the project to showcase their technology to people other than the experts.

The relationships between BIG and the seven start-ups are summarised in Table 3.

**Table 3.** The start-ups' relationship initiations with BIG.

Start-up initiation process	SU1	SU2	SU3	SU4	SU5	SU6	SU7
<b>Triggering initiation and need identification</b>	Cold call	BIG's supplier called SU2	BIG involved in technology development prior to starting up	Wanted to start selling the product in the oil industry and needed a contact point	Needed an investor to develop the first concept in a possibility study	An employee knew someone in the oil company that was later acquired by BIG	The founder worked at a research institute prior to starting up and then collaborated with oil companies
<b>Matching/attraction</b>	Applied to BIG's SDP	The supplier needed to know whether SU2 could tailor-make the product in metal instead of plastic for BIG	Meetings with various departments at BIG for over 1.5 years in order to be admitted to the SDP	Initial resistance in BIG towards using SU4's product	BIG had been a contact since a pilot study in the 1990s	Had demonstrated that SU6 was a competent partner	The SU manager previously worked at BIG and still had connections with previous colleagues
<b>Accessing</b>	SU1 was passed from one BIG contact person to the next until they found the right contacts	BIG's supplier specified the demands regarding the product and the documentation SU2 had to complete	SU3 had up to 30 contact points at BIG	SU4 was a supplier of a company that BIG acquired	Same contact people since the 1990s in the geotech and offshore departments	A long-term project from the relationship with the acquired oil company was still ongoing after the acquisition and was an important starting point for interacting with BIG	SU7 was a supplier of a company that BIG acquired
<b>Defining exchange</b>	SU1 was part of BIG's SDP; the technical and commercial departments at BIG made the decisions	If SU2 could meet BIG's expectations, there would be a deal	SU3 was part of BIG's SDP; BIG had promised to contribute to pilot testing during the SDP, but the test was performed with university equipment instead	SU4 delivered to all parts of the BIG organisation	SU5 was part of BIG's SDP; the SU5 manager also worked as a consultant at BIG	Had several parallel projects with various departments at BIG	BIG was buying the software technology that SU7 developed (whereas most other customers were buying the use of it)

<b>Building conditions and trust</b>	Personal relationships often lost because BIG employees frequently changed positions internally; BIG partly paid for a pilot test	Demands were unpredictable from deal to deal	Many employees at BIG provided advice; BIG mediated contacts with its suppliers	BIG wanted tailor-made solutions; SU4 gathered all its customers for workshops; BIG was involved in a research project with SU4 and other partners	BIG's investments during the programme were converted into stocks; BIG assumed ownership of 20% of SU5, whose product was certified for use by BIG	The departments acted as separate customers, which made the relationship unpredictable for SU6	BIG had sponsored technical development and was given software licenses in return
<b>Forming the future</b>	The business relationship was dormant because SU1 was on hold. Actor bonds remained because one of the founders was working at BIG	Every deal and contract between SU2 and BIG was handled separately	The programme period was ending and no further collaboration between BIG and SU3 was planned	BIG was SU4's most important customer	Waiting for BIG to make a decision about a tendering; possibility for SU5 to participate as a subcontractor	SU6 collaborated on a research project with BIG and other partners; BIG represented 70% of the turnover at SU6	Together with BIG, SU7 initiated a technology-development project

Table 3 shows that all the initiations somehow went through the identified initiation subprocesses and that the characteristics of each subprocess reflected the special characteristics of how the start-up and BIG combined and fit with each other. The initiation subprocesses seemed to occur in the following ways:

1. Trigger/initiator and need identification: BIG seemed to be on the network horizon of all seven start-ups before the relationship was initiated. SU1 and SU3 therefore contacted BIG to see if their product would be of interest to them without having a clear agenda for how they wanted the potential relationship to develop. For SU3, SU5, SU6 and SU7, actor bonds existed between the start-up and BIG employees from previous relationships. These bonds were the starting point for the initiation of a relationship between the start-up and BIG. The cases studied demonstrate that the need to initiate a relationship could originate from either the start-up or BIG.
2. Matching/attraction: All the start-ups were attracted to the large number of resources at BIG, which could potentially generate large revenues for the start-ups or enable them to combine their expertise with BIG's knowledge resources in order to develop their products and companies further. For the start-ups that applied to the SDP, these subprocesses

consisted of convincing BIG's innovation department that their product ideas were worth investing in. BIG was willing to assist the start-ups in this process by mediating contacts with suppliers and supporting development projects. The start-ups that became suppliers to BIG through the merger had to convince their contact persons at BIG that they had the knowledge necessary to continue with their projects and could adjust to BIG's demands. In other words, BIG seemed to practice gatekeeping during these subprocesses.

3. Accessing: If the start-ups met the gate requirements, their contact points at BIG increased rapidly. These contact points advised the start-ups and participated in projects and could also function as additional customers, so the product spread throughout the organisation. Initially, these contacts were rather short-term, because BIG reorganised frequently and the employees did not have a stake in the start-ups.
4. Defining exchange: For the start-ups that became suppliers to BIG through the merger, these subprocesses were closely connected to the matching/attraction subprocesses, because these start-ups were then accepted into the BIG organisation and only needed to iterate between the subprocesses accessing and defining exchange to expand their businesses. For the start-ups in the SDP, these subprocesses represented a second gate, because the results they had achieved in the programme determined how much support BIG would give them in, for instance, formulating tender documents that would facilitate contact between the start-up and BIG's suppliers. These subprocesses also marked a change in the relationship for the SDP start-ups, because they went from being an investment under development in collaboration with BIG to a potential subsupplier.
5. Building conditions and trust: Building trust was difficult during the relationship initiations, because there was little continuity in interaction. The start-ups had to build actor bonds with many different BIG employees. These employees did not act as a coordinated unit. Forming a long-term business relationship with BIG was therefore perceived by the start-ups as difficult. However, BIG simultaneously demonstrated a commitment to the relationships with the start-ups by making investments in the start-ups and in collaboration projects.
6. Forming the future: These subprocesses are, to a large extent, an iteration of defining exchange, because forming the future depends heavily on the results of defining exchange, and the start-ups needed an outside contributor to be able to redefine the exchange and thereby form a different future relationship with BIG. For instance, SU1 needed more



information about their future market and partners, and SUs 4, 5 and 7 made sure to have other customers in addition to BIG.

### **Concluding discussion of findings**

Our findings regarding individual relationship initiations by start-ups and their comparisons provide major insights with regard to (1) how relationships are generally initiated and developed between start-ups and a larger, attractive player and (2) how the particular features of start-up businesses shape these initiations, that is, what is typical of initiations in the start-up context. These are now discussed in relation to the existing literature.

With regard to the initiation process as a whole, the study reveals the diversity of relevant subprocesses that are experienced throughout the initiation process and how these initiation subprocesses occur when start-ups in particular are involved. For example, the vagueness of the starting point is a dominant feature of the case studies. The exact starting point for all seven start-ups could be debated. Furthermore, many relevant initiation subprocesses are informal, indirect and interrelated (such as matching and defining exchange in this study's cases), making the entire start-up relationship-initiation process very obscure. The cases highlight the variety of direct and indirect social contacts that trigger, accelerate or hinder the initiation process. Thus, the cases both support and extend previous studies that have noted the difficulty of identifying which contacts between parties cause the initiation of the business relationship (e.g., Andersen, 2001; Holmlund and Törnroos, 1997).

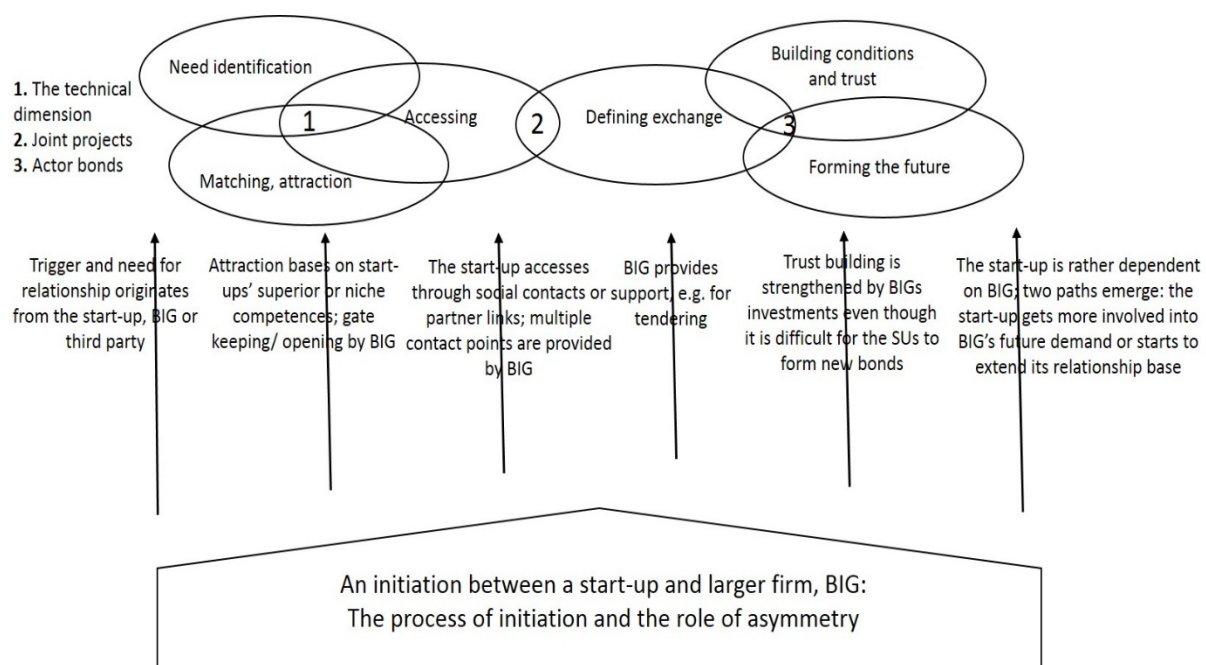
Moreover, the analysis shows how the six subprocesses of the developed framework occur when start-ups initiate business relationships. The detailed case studies of complete initiation processes support earlier insights into the phenomenon but also provide a more itemised, fine-grained and comprehensive picture of initiating. As the relationship-development literature (Ford, 1980; Dwyer *et al.*, 1987; Halinen, 1997; Batonda and Perry, 2003; Polonsky, *et al.*, 2010, Frazier, 1983; Wilson, 1995; Ring and Van de Ven, 1994; Wilkinson *et al.*, 2005) and the relationship-initiation literature (Edvardsson *et al.*, 2008, Valtakoski, 2015; Mandják *et al.*, 2015) have indicated, activities such as

trust building and forming the relationship's future seem to drive the initiation process. For start-ups, accessing processes are also crucial.

The findings highlight three particular challenges that need to be overcome during relationship initiation. First, like previous research, this study maintains that it is difficult to identify the exact starting point of the relationship initiation, but the present study also demonstrates that in order for the relationship initiation to progress beyond the first three subprocesses, there must be a fit in the technical dimension. Second, in order for the relationship to progress beyond an iteration between the subprocesses accessing and defining exchange, joint projects are needed. These projects confirm the fit in the technical dimension and represent a starting point for further collaboration, because the projects enable the start-up and the larger company to invest time and resources in the relationship as well as to display mutual interest. Third, our cases show that actor bonds are particularly important towards the end of the relationship initiation, because such bonds facilitate the subprocesses of forming the future, building conditions and trust, and defining exchange.

This study also highlights how start-ups' initiations occur in asymmetric contexts, a phenomenon left unaddressed by earlier relationship-development-and-initiation studies (e.g., Edvardsson *et al.*, 2008; Valtakoski, 2015). In the case studies, relationships are asymmetric due to the large differences in size between the start-ups and the large multinational company, and this influenced the initiation process in multiple ways. The three challenges mentioned in the previous paragraph facilitate the relationship initiation by creating a perception of less asymmetry. The fit in the technical dimension makes the larger company aware that the start-up may be valuable, the joint projects confirm and strengthen this view and the actor bonds help the bigger firm and the start-up engage in trust and planning for the future in a more informal way. The cases show how the start-ups must play the active part throughout the relationship initiation and persuade the larger company that they are attractive partners. An asymmetric relationship can include the characteristics of mutuality, particularity, cooperation, conflict, intensity, interpersonal inconsistency, power/dependence and trust (Lee and Johnsen, 2012). As Munksgaard *et al.* (2015) argued, this uneven distribution of power is an important issue, though not a hindrance, in achieving effective interaction in asymmetric relationships. Collective interest, that is, the conjoined self-interest of both parties, is an important step towards collaboration, because "firms will join their resources

with the aim of each achieving their own economic goal for the relationship[,] and these goals will motivate firms to jointly act for reaching better relationship performance” (Munksgaard *et al.*, 2014, p. 3; Medlin, 2006). The interests of the larger party, however, tend to exert a disproportionate influence on the collective interests of asymmetric relationships (Munksgaard *et al.*, 2015). This last point was quite evident in the case studies, because BIG’s goals seemed to be the primary focus in the relationships. Figure 2 summarises how start-ups initiate relationships with bigger firms, highlighting both the process of initiation and how contextual issues such as asymmetry shape the initiation.



**Figure 2.** Start-ups’ initiations of business relationships.

The major contribution of this study is, first, the framework for the initiation process and the detailed analysis of start-ups’ business-relationship initiations, which shed light on *how the full initiation process occurs in the start-up context*. This represents a contribution to the relationship initiation and development literature (Ford, 1980; Dwyer *et al.*, 1987; Halinen, 1997; Batonda and Perry, 2003; Polonsky, *et al.*, 2010, Frazier, 1983; Wilson, 1995; Ring and Van de Ven, 1994; Wilkinson *et al.*, 2005; Edvardsson *et al.*, 2008, Valtakoski, 2015; Mandják *et al.*, 2015), because such studies have lacked a process perspective and have analysed only mature firms’ relationship initiations.

Second, this study identified the typical patterns and critical issues that characterise start-ups' relationship initiations, particularly with bigger players. The detailed analysis of the initiation subprocesses undergone by start-ups improves the current knowledge of *the challenges that start-ups face in contemporary business networks due to their smallness and newness*. In particular, finding a technical fit, investing and engaging in joint projects and forming actor bonds are important challenges. The cases underline how asymmetry between the start-up and the bigger players shapes the initiating process: start-ups were pushed to contribute much effort in accessing and advancing other initiation subprocesses, particularly through building conditions and trust and forming the future, via multiple direct and indirect connections. Thus, these contributions add to the emerging IMP research stream on integrating relationship development and the start-up approach (e.g., La Rocca *et al.*, 2013, Snehota, 2011; Aaboen *et al.*, 2011) and research examining small, innovative, technology-based firms' relationships (e.g., Partanen, *et al.*, 2014).

This study has some limitations because its findings concern only one European country and technology-based start-ups, although it did analyse start-ups from different industries. The findings can illuminate how start-ups initiate relationships in other contexts. Future research could repeat this study in other contexts and in international settings in order to identify start-up-related issues in addition to asymmetry. Furthermore, it is notable that BIG's suppliers were important actors during the relationship initiations; future studies could further explore the role of suppliers in initiation processes. This study's findings could also be used to develop models tailored to start-ups, in which the processes associated with actors, resources and activities are integrated.

## REFERENCES

- Aaboen, L., Dubois, A. and Lind, F. (2011), "Start-ups starting up – firms looking for a network", *The IMP Journal*, Vol. 5 No. 1, pp. 42-58.
- Aaboen, L., Holmen, E. and Pedersen, A-C. (2017), "Initiation of business relationships in start ups", in Aaboen, L., La Rocca, A., Lind, F., Perna, A. and Shih, T. (Eds.), *Starting Up in Business Networks Why Relationships Matter in Entrepreneurship*, Palgrave Macmillan, London. pp. 19-39.
- Aaboen, L., Laage-Hellman, J., Lind, F., Öberg, C. and Shih, T. (2016), "Exploring the roles of university spin-offs in business networks", *Industrial Marketing Management*, Vol. 59, pp. 157-166.
- Aarikka-Stenroos, L. and Halinen, A. (2007), "The promoting role of third actors in initiating relationships", paper presented at the IMP Conference, Manchester, UK.
- Aarikka-Stenroos, L. and Jaakkola, E. (2012), "Value co-creation in knowledge intensive business services: a dyadic perspective on the joint problem solving process", *Industrial Marketing Management*, Vol. 41 No. 1, pp. 15-26.
- Aarikka-Stenroos, L. and Makkonen, H. (2014), "Industrial buyers' use of references, word-of-mouth and reputation in complex buying situations", *Journal of Business & Industrial Marketing*, Vol. 29 No. 4, pp. 344-352.
- Andersen, P. (2001), "Relationship development and marketing communication: an integrative model", *Journal of Business & Industrial Marketing*, Vol. 16 No. 3, pp. 167-183.
- Autio, E. (1994), "New, technology-based firms as agents of R&D and innovation: an empirical study", *Technovation*, Vol. 14 No. 4, pp. 259-273.
- Batonda, G. and Perry, C. (2003), "Approaches to relationship development processes in inter-firm networks", *European Journal of Marketing*, Vol. 37 No. 10, pp. 1457-1484.
- Chen, H. and Chen T.-J. (2002), "Asymmetric strategic alliances: a network view", *Journal of Business Research*, Vol. 55, pp. 1007-1013.
- Ciabuschi, F., Perna, A. and Snehota, I. (2012), "Assembling resources in the formation of a new business", *Journal of Business Research*, Vol. 65 No. 2, pp. 220-229.

- Clausen, T.H. and Rasmussen, E. (2013), "Parallel business models and the innovativeness of research-based spin-off ventures", *Journal of Technology Transfer*, Vol. 38, pp. 836-849.
- Dixon, M. and Adamson, B. (2011), *The Challenger Sale: Taking Control over the Customer Conversation*, Penguin, New York, NY.
- Dwyer, R.F., Schurr, P.H. and Oh, S. (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 1 No. 2, pp. 11-27.
- Edvardsson, B., Holmlund, M. and Strandvik, T. (2008), "Initiation of business relationships in service-dominant settings", *Industrial Marketing Management*, Vol. 37, pp. 339-350.
- Fayolle, A., Jack, S., Lamine, W., and Chabaud, D. (2016), *Entrepreneurial Process and Social Networks: A Dynamic Perspective*, Edward Elgar, Cheltenham.
- Fini, R., Fu, K., Mathisen, M.T., Rasmussen, E. and Wright, M. (2016), "Institutional determinants of university spin-off quantity and quality: a longitudinal, multilevel, cross-country study", *Small Business Economics*, In Press, Available Online.
- Ford, D. (1980), "The development of buyer-seller relationships in industrial markets", *European Journal of Marketing*, Vol. 14 No. 5-6, pp. 339-354.
- Frazier, G.L. (1983), "Interorganizational exchange behavior in marketing channels: a broadened perspective", *Journal of Marketing*, Vol. 47 No. 4, pp. 68-78.
- Halinen, A. (1997), *Relationship Marketing in Professional Services: A Study of Agency-Client Dynamics in the Advertising Sector*, Routledge, London.
- Holmen, E., Roos, K., Kallevåg, M., von Raesfeld, A., de Boer, L. and Pedersen, A.-C. (2005), "How do relationships begin?", paper presented at the IMP Conference, Rotterdam, The Netherlands.
- Holmlund, M. and Törnroos, J.-Å. (1997), "What are relationships in business networks?", *Management Decision*, Vol. 35 No. 4, pp. 304-309.
- Ingemansson, M. and Waluszewski, A. (2009), "Success in science and burden in business: on the difficult relationship between science as a developing setting and business as a producer-user setting", *The IMP Journal*, Vol. 3 No. 2, pp. 20-56.
- Johnston, W.J. and Lewin, J.E. (1996), Organizational buying behavior: toward an integrative framework, *Journal of Business Research*, Vol. 35 No. 1, pp. 1-15.

Kvale, S. (2001), *Det kvalitative forskningsintervju*, Gyldendal, Oslo.

Langley, A. (1999), "Strategies for theorizing from process data", *Academy of Management Review*, Vol. 24 No. 4, pp. 691-710.

La Rocca, A., Ford, D. and Snehota, I. (2013), "Initial relationship development in new business ventures", *Industrial Marketing Management*, Vol. 42 No. 7, pp. 1025-1032.

La Rocca, A. and Perna, A. (2014), "New venture acquiring position in an existing network", *The IMP Journal*, Vol. 8 No. 2, pp. 28-37.

Lee, C.-J. and Johnsen, R.E. (2012), "Asymmetric customer-supplier relationship development in Taiwanese electronic firms", *Industrial Marketing Management*, Vol. 41, pp. 692-705.

Lockett, A. and Wright, M. (2005), "Resources, capabilities, risk capital and the creation of university spin-out companies", *Research Policy*, Vol. 34 No. 7, pp. 1043-1057.

Mandják, T., Szalkai, Z., Neumann-Bódi, E., Magyar, M. and Simon, J. (2015), "Emerging relationships: how are they born?", *Industrial Marketing Management*, Vol. 49 No. 1, pp. 32-41.

Medlin, C.J. (2006), "Self and collective interest in business relationships", *Journal of Business Research*, Vol. 59, pp. 858-865.

Medlin, C.J. and Törnroos, J-Å. (2015), "Exploring and exploiting network relationships to commercialize technology: a biofuel case", *Industrial Marketing Management*, Vol. 49, pp. 42-52.

Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis*, 2nd ed., Sage Publications, Thousand Oaks, CA.

Moncrief, W.C. and Marshall, G.W. (2005), "The evolution of the seven steps of selling", *Industrial Marketing Management*, Vol. 34 No. 1, pp. 13-22.

Munksgaard, K.B., Johnsen, R.E. and Patterson, C.M. (2015), "Knowing me, knowing you: self- and collective interests in goal development in asymmetric relationships", *Industrial Marketing Management*, Vol. 48, pp. 160-173.

Munksgaard, K.B., Johnsen, R.E. and Patterson, C.M. (2014), "Self- and collective interest in stages of asymmetric customer-supplier relationships: evidence from the Danish food sector", paper presented at the IMP Conference, Bordeaux, France.

Partanen, J., Chetty, S. K. and Rajala, A. (2014), "Innovation types and network relationships", *Entrepreneurship Theory and Practice*, Vol. 38 No. 5, pp. 1027-1055.

Perna, A., Baraldi, E. and Waluszewski, A. (2015), "Is the value created necessarily associated with money? On the connections between an innovation process and its monetary dimension: the case of Solibro's thin-film solar cells", *Industrial Marketing Management*, Vol. 46, pp. 108-121.

Polonsky, M., Gupta, S., Beldona, S. and Hyman, M.R. (2010), "Inactivity and the dynamics of relationship development: a proposed model", *Journal of Strategic Marketing*, Vol. 18 No. 3, pp. 257-273.

Pratt, M.G. (2009), "For the lack of a boilerplate: tips on writing up (and reviewing) qualitative research", *Academy of Management Journal*, Vol. 52 No. 5, pp. 856-862.

Rao, H. (1994), "The social construction of reputation: certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895-1912", *Strategic Management Journal*, Vol. 15, pp. 29-44.

Ring, P.S. and Van de Ven, A.H. (1994), "Developmental processes of cooperative interorganizational relationships", *Academy of Management Review*, Vol. 19 No. 1, pp. 90-118.

Ritter, T. (2000), "A framework for analyzing interconnectedness of relationships", *Industrial Marketing Management*, Vol. 29 No. 4, pp. 317-326.

Rothaermel, F.T., Agung, S.D. and Jiang, L. (2007), "University entrepreneurship: a taxonomy of the literature", *Industrial and Corporate Change*, Vol. 16 No. 4, pp. 691-791.

Shepherd, D.A. (2015), "Party on! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial", *Journal of Business Venturing*, Vol. 30 No. 4, pp. 489-507.

Slotte-Kock, S. and Coviello, N. (2010), "Entrepreneurship research on network processes: a review and ways forward", *Entrepreneurship Theory and Practice*, Vol. 34 No. 1, pp. 31-57.

Snehota, I. (2011), "New business formation in business networks", *The IMP Journal*, Vol. 5 No. 1, pp. 1-9.

Uлага, W. and Eggert, A. (2005), "Relationship value in business markets: the construct and its dimensions", *Journal of Business-to-Business Marketing*, Vol. 12 No. 1, pp. 73-99.



Valtakoski, A. (2014), "Initiation of buyer-seller relationships: the impact of intangibility, trust and mitigation strategies", *Industrial Marketing Management*, Vol. 44, pp. 107-118.

Vohora, A., Wright, M. and Lockett, A. (2004), "Critical junctures in the development of university high-tech spinout companies", *Research Policy*, Vol. 33 No. 1, pp. 147-175.

Wilkinson, I., Young, L. and Vagn Freytag, P. (2005), "Business mating: who chooses and who gets chosen?", *Industrial Marketing Management*, Vol. 34 No. 7, pp. 669-680.

Wilson, D.T. (1995), "An integrated model of buyer-seller relationships", *Journal of the Academy of Marketing Science*, Vol. 23 No. 4, pp. 335-345.