



Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

Understanding network emergence after turbulent industrial relocation: A Swedish biorefinery initiative

Heléne Lundberg^{a,*}, Edith Andresen^a, Jan-Åke Törnroos^b

^a Department of Business, Economics and Law, CER, Mid Sweden University, SE-851 70, Sundsvall, Sweden

^b School of Business and Economics, Åbo Akademi University, FIN-Henriksgatan 7, 20500, Åbo, Finland

ARTICLE INFO

Article history:

Received 3 September 2015

Received in revised form

1 February 2016

Accepted 3 March 2016

Available online xxx

Keywords:

Business studies

Interaction

Networking

Network

Process analysis

Orchestration

ABSTRACT

The paper examines network development and reconfiguration in the aftermath of industrial restructuring. The research combines a sensemaking approach with process research into business network development. A longitudinal case study examines a unique setting and critical change processes created by the restructuring of an old industrial site. Managers of businesses, previously belonging to a multinational company, initiated joint R&D in a networking context, putting their resources to novel use by creating a biorefinery initiative. Their previously intra-organizational relationships were turned into inter-organizational relationships and over time additional, and other types of actors joined the growing network. The individual actors are key drivers in the upcoming situation and their sensemaking and acts form key processual elements in sensemaking and network development. The study contributes to research on network reconfiguration and network orchestration. It has practical implications for managerial action in times of crisis and turbulence and for the role of individuals in creating novel business networks.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

There have been few productive attempts to study both the structure and process of thought simultaneously. Studying one has meant deemphasizing or assuming away the other. Thus, there are few theoretical frameworks for linking structure and process together in a meaningful and useful way. (Meindl, Stubbart, & Porac, 1994)

In the 1990s, many traditional production-sector companies in Europe moved their production operations to emerging markets. Traditional paper industries in Northern Europe suffered from this investment-allocation shift, which caused difficult setbacks for affected localities and regions. The studied case concerns the reorganization of one of the Swedish industrial sites of the multinational corporation (MNC) MoDo, located on the northwestern shore of the Gulf of Bothnia. The shift in investment allocation led to a reorganization process driven by a group of managers

cooperating in a network context.

This paper contributes to business network theory by examining the dynamic process of network reconfiguration. As claimed by Tikkanen and Alajoutsijärvi (2002, p. 26), “it is essential to learn about how relationships and networks have emerged and developed in order to be able to understand their current forms and the related problems fully”. The aim is to identify critical events in the reconfiguration process, including the sensemaking (Weick, 1995) and sensegiving processes of key actors, and how these events and processes in turn advance network-related actions and thus the process of reconfiguration (Halinen, Medlin, & Törnroos, 2012; Pettigrew, 1992, 1997; Van de Ven & Poole, 1995). In line with previous studies of network dynamics (e.g. Halinen, Törnroos, & Elo, 2013; Havila & Salmi, 2000; Havila, Salmi, & Havila, 1999; Quintens & Matthysens, 2010), we define critical events as those with a decisive impact on relationship development in a dyad or connected network of business actors.

The business network approach acknowledges markets as sets of connected exchange relationships (Anderson, Håkansson, & Johanson, 1994; Cook & Emerson, 1978; Håkansson & Snehota, 1995). It has been observed that the role of individual actors may be very important (Alajoutsijärvi, Möller, & Rosenbröjjer, 1999) and that “using different levels of analysis is a positive endeavour as

* Corresponding author.

E-mail addresses: helene.lundberg@miun.se (H. Lundberg), edith.andresen@miun.se (E. Andresen), jtornroo@abo.fi (J.-Å. Törnroos).

long as the different results are connected to a greater picture” (Wilke & Ritter, 2006, p. 45). Nevertheless, most research has concentrated on business dyads (Henneberg, Naudé, & Mouzas, 2010) and downplayed the role of individuals, predominantly referring to the company as an actor. The scope of this paper is broader, addressing a historical reconfiguration in terms of a shift from a single basic industrial activity in a specific location to another, network-based and R&D-focused, one. We thereby also contribute by addressing the gap in studies of different dimensions of network orchestrating (Hurmelinna-Laukkanen, Olander, & Blomqvist, 2012). The key concepts that add to previous knowledge of network development are: time–space relatedness, the unfolding of a process comprising the initiatives of individual actors, how they handle critical events, and the joint agency of their network cooperation.

The case captures processes from the longitudinal and interpretative perspectives, tracing change by following the roles of individual managers in the process (Dawson, 1997; Medlin & Törnroos, 2009). Potential opportunities to act, as informed by sensemaking (Weick, 1995) and realized over time, were detected using a relationship and network approach (Håkansson & Snehota, 1995; IMP Group, 2002). A sensemaking perspective is used to clarify how specific business actors detected cues in their environment, specifically in their actor network connections, and made sense of these in order to act (Weick, 1969, 1995, 2001; Weick, Sutcliffe, & Obstfeld, 2005).

The following section presents brief conceptual overviews of the network approach, critical events, and sensemaking as a key networking process. We then discuss the method used to capture change and consider sensemaking as a process for reconfiguring the network. The next section presents and analyses the case itself, while the final section offers conclusions and implications for theory and practice.

2. The network approach, human actors, and sensemaking

Developing connected exchange relationships in business encounters forms *networks*. The joint configuration of actors, resources, and activities resulting in interdependent value creation forms the focal issues of the interaction and network approach (Anderson et al., 1994; Ford, 2004; Håkansson & Snehota, 1995), which in turn offers many potential theoretical vantage points from which to study reconfiguration processes. A key characteristic of networks is their complexity, while dynamics – i.e. the stability, change, evolution, and reconfiguration of networks over time – are inherent to networks' existence in time. The processual nature of business networks must therefore be considered when examining their structural and temporal development (e.g. Easton, 1995; Ford & Håkansson, 2006; Halinen & Törnroos, 1995, 2005; Halinen et al., 2012; Medlin, 2004; Quintens & Matthyssens, 2010). There are various perspectives on how networks evolve and change over time. In many studies, data are gathered through personal interviews with managers and other individual actors (e.g. politicians or NGO members) involved in the studied processes (e.g. Gebert Persson, Lundberg, & Andresen, 2011). However, most studies have downplayed individuals as change agents playing key roles in business processes. This is often the case, even when actors are treated in a tripartite manner (e.g. in business network research) as encompassing individuals, teams/departments, and/or companies. The key models of business networks follow this logic, for example, the interaction model (Håkansson, 1982) and the actors–resources–activities (ARA) model (Håkansson & Johanson, 1992; Håkansson & Snehota, 1995).

The notion of *network reconfiguration* is significant in the case studied here. Reconfiguration relates to the use of former relational

investments in a new manner, the initial value configuration being transformed or repurposed in response to new needs and concepts. In the present case, existing infrastructure, knowledge, and resources are used in a novel manner in the realm of their long-standing location facilities. We witness similar cases, for example, when industrial sites or former military complexes are used for new purposes. In this research we ask why and how such reconfigurations occur and what reasons underlie this emergent process of network configuration.

Actors are the key players in B2B networks. Individual actors can play decisive roles in network change and in maintaining relationships over time through mutual adaptations. Individual managers as actors represent their companies and act accordingly in their roles. They must develop mutual understanding to create a shared basis for value creation and construct interaction in ways perceived as sensible to both themselves and others (Pentland, 1999). In this endeavour, actors act in line with the interests of their companies, their counterparts, and the networks in which the dyads are embedded (Medlin & Törnroos, 2009). Membership in a community, or a specific business network within a larger community, is demonstrated by the ability to act according to group-generalized attitudes, values, symbols, and discourses. However, the personal interests of the individuals in question and their abilities to act also merit consideration. In network terms, actors create network activities and use the connected resources of the network – a key understanding in the IMP network approach (Håkansson & Johanson, 1992; Håkansson & Snehota, 1995).

2.1. The relevance of sensemaking

Sensemaking is closely related to the organizational theory work of Weick (1969, 1995, 2001; Weick et al., 2005). It refers to the process of information seeking and meaning creation as a basis for managerial decision-making and action (Mouzas, Henneberg, & Naudé, 2008; Möller, 2010) and is a complex individual and collective phenomenon (Weick, 1995). In an inter-organizational setting, sensemaking can be defined as the “interactive processes by which participants in inter-organizational relationships construct accounts that allow them to comprehend the world and act collectively” (Wlaar, Van den Bosch, & Volberda, 2006, p. 1622) or as an actor's ability to perceive, interpret, and construct meaning in the emerging business landscape (Möller, 2010). Sensemaking thus depends on our ability to think in narrative terms, for example, retrospectively and prospectively (Pentland, 1999; Weick, 1995). In interactive business networks, sensemaking also involves “sense-taking” and “sensegiving” through mutual meaning creation and the detection of meaningful cues. Individuals form the core of this process through interacting with other players having converging interests. In our understanding, sensemaking is enacted through both individual and collective processes since individuals make sense of situations though interaction with other key actors. Our view is that context matters when managers attempt to detect cues and form a basis for their decision-making. We view networks as the key organizing device for managers when they act and interact, both within their companies and with other managers in the external network.

Wlaar et al. (2006) argue that formalization (i.e. the process of codifying and enforcing inputs, outputs, and behaviours) and its outcomes in the form of contracts, rules, and procedures are closely related to sensemaking as a way of handling differing views and problems of understanding. They discuss various positive effects of formalization on the sensemaking process: 1) focussing attention, 2) forcing articulation, deliberation, and reflection, 3) instigating and maintaining interaction, and 4) reducing biases, judgment errors, incompleteness, and inconsistency. In some cases,

uncertainties and discontinuities thrive in business and actors might, willingly or unwillingly, have to deal with new relationships and contexts (Ring, 2000; Wlaar et al., 2006). This state characterizes the case in question in which a novel situation emerged and ambiguity and uncertainty prevailed. The following section presents the method used to analyse the process, starting from its initiation phase and extending through action, critical events, sensemaking, and interaction between actors in various positions and roles in the emerging network.

3. Methodological choices

The present case comprises a reconstruction of the process that occurred according to a pragmatic, constructivist, and qualitative approach. The study is interpretive, longitudinal, case oriented, and processual (Langley, 1999; Pettigrew, 1997; Simpson, 2009; Van de Ven, 1992). The longitudinal data capture the unfolding of events in temporal sequence (Heise & Durig, 1999), describing the process in its context. We note the role of time as substrate of the past–present–future trichotomy (Halinen & Törnroos, 1995; Medlin, 2004). This view regards the present as implicit in the past and often affected by it (e.g. by earlier local investments) and the present as also leading to the future (e.g. by expectations when making investments) (Halinen & Törnroos, 1995; Hedaa & Törnroos, 2008; Simpson, 2009). In the human mind, the present is already in the past as we become aware of it: it emerges constantly and we apprehend reality only after it has passed. These notions capture how time is experienced by individual human actors, who perceive a sequence of events causing change as the network develops and changes over time, as well as how the actors' network, relationships, activities, and resource constellations are perceived.

In the empirical case study, data were collected from multiple sources: interviews, observations, and written material such as reports, local newspapers, information/marketing material, material from web sites, project applications, and grant decisions. Forty-two people involved in originating and implementing the Bio-refinery Initiative were interviewed between 2009 and 2013, some several times. Each interview lasted about an hour and was tape-recorded and transcribed. During the interview, the respondents could give detailed accounts of their experiences and state what events they found critical (Gremler, 2004). Most interviews were conducted in person but some were conducted by phone. Phone interviews are less rich than face-to-face interviews as non-verbal cues are lost and were therefore only used for complementary data gathering and when long physical distances otherwise would have made data gathering too time consuming and costly. The data are thick and rich, giving a trustworthy and relevant basis for interpreting the collected narrative data (Guba & Lincoln, 1983; Polkinghorne, 1995).

3.1. Events as drivers of processes

Events (or incidents) represent the temporal flow in human-based change processes, as “time can only be experienced when its flow is interrupted by the occurrence of an event that thrusts itself forward creating new, emergent possibilities” (Simpson, 2009, p. 1337). Events are also happenings “that are significant in understanding the history of the process” (Hedaa & Törnroos, 2008; Stevenson, Zinzow, & Sridharan, 2003). Events often result from interaction; they are stored in the memory and perceived as negative or positive when recalled (Edvardsson & Roos, 2001). Events may trigger change in relationships and behaviours (Roos, 2002) and make a significant contribution, either positively or negatively, to activities or phenomena (Gremler, 2004). The identification of critical events is based on the critical incidents

technique (CIT) first introduced by Flanagan (1954). The method has rarely been used in research in business-to-business contexts but may form a point of departure for understanding change in business networks (Tidström & Hagberg-Andersson, 2012). Furthermore, it takes human time into account, which allows for descriptions of effects and consequences and of the prioritized influencing factors (Edvardsson & Roos, 2001; Roos, 2002). CIT offers flexible rules that can be modified to meet the requirements of the object studied (Gremler, 2004); in addition, it is closely connected to the sensemaking notion presented above.

The event identification started with a preliminary overview. The case study respondents were free to mention events perceived to be critical. The number, content, and ascribed significance of these events differed as some respondents were active only in specific phases of the entire process and accordingly differed in their perceptions (Tidström & Hagberg-Andersson, 2012).

3.2. Data analysis

To interpret and make sense of the process, an abductive approach is used (Alvesson & Skjöldberg, 1994), as recommended for case studies by, for example, Dubois and Gadde (2002), to delineate various aspects of reality (Järvensivu & Törnroos, 2010). The detected critical events were compared and sorted into a narrative (Pentland, 1999) encompassing a “historical” sequence of events (Heise & Durig, 1999) forming the developing process of the studied case. However, this does not imply linearity in the event sequence, as both past events and anticipated future events had influenced present events (Tidström & Hagberg-Andersson, 2012).

The analysis was conducted by two of the authors who considered: event sequences in time, the acts, “voices”, and contexts (i.e. evaluative frames of reference) of the focal actors, and other content indicators such as time, place, and actor attributes (Pentland, 1999). For each interview and story told, we identified the intersubjectively created meanings that the informants attributed to their experiences related to the critical events in the studied process. In particular, we focused on relevant causal factors that influenced the sequence of events (Van de Ven & Poole, 2005). We thus not only describe what happened (which often could be observed), but also present change origins (which often were unobservable). In other words, this provides descriptions as well as ascriptions of network change (Abrahamsen, Henneberg, & Naudé, 2012). For instance, we learned that the decision to form a limited liability company was not only influenced by endogenous advantages of having a formalized structure for the actors' influence and responsibilities and a general increase in exogenous legitimacy – it was actually a formal request from major potential public fund providers and could therefore not be avoided. It was thus a future-oriented decision, embedded in overlapping sets of processes.

The analysis was influenced by the analytical scheme suggested by Halinen et al. (2013), i.e. initially the most apparent events and structural changes were identified and sorted into a narrative structure. Thereafter, other events put forward were identified and their relation (in terms of time, actors, activities and resources) to other events was considered. Finally influencing factors behind critical events were examined on the basis of the level of analysis, the required sensemaking, time aspects as well as the actors, activities and resources involved.

The trustworthiness and relevance of the CIT method have been questioned, as stories told by respondents may be misinterpreted or misunderstood by researchers. Like narratives, the method is subjective and retrospective, which may cause undesirable biases due to memory lapses (Gremler, 2004). To avoid such pitfalls, we used multiple data sources, conducted further interviews if something was unclear, and finally tested the interpretations and

conclusions with some of the informants. We compared the different narratives in search for meaningful actors, focal and contextual events, and structural characteristics (Makkonen, Aarikka-Stenroos, & Oikkonen, 2012). At times we encountered contrasting views of events and their origins. For facts like time, place and the actors involved, for example, we could often resolve the problem by turning to documentation written at the time of the event. In other situations, when views differed or when choosing what events to include in the narrative, we had to develop a general understanding that made the most sense from a research perspective – i.e. to perform a “double sensemaking process” (Halinen et al., 2013).

3.3. Data presentation

In presenting the case, the narrative is used as an abstract conceptual model of the process. This processual approach, which constitutes a basis of the paper, comprises specific elements and an understanding of time as consisting of critical events triggering change. Such historic and social processes may be analysed by means of narratives describing the process (Makkonen et al., 2012; Stevenson et al., 2003). This is done by using CIT focussing on critical events and exposing the assumptions of the actors (Angelides, 2010) and by using event structure analysis of the case history as a sequence of events (Heise & Durig, 1999). Event sequences are the core of narrative structure (Pentland, 1999); in this study, we combine features of CIT when identifying the critical events with event sequence analysis when compiling and formulating the final case narrative. In addition, we analyse the network configuration process by using the network approach and applying its key concepts (notably, actors, activities, and resources) over time.

4. Processum and the “biorefinery of the future”: the starting point

In the late 1990s, in Örnsköldsvik municipality in northern Sweden, the economic atmosphere was pessimistic: people were worried because the large pulp and paper company MoDo was reorganizing its operations and selling off major parts of its local business (*Critical event 1*). People feared a considerable loss of employment and R&D competences in the region. The key actors at this stage were some of MoDo's former managers who had worked together for many years in the staff units at head office. They were then working for various other employers, still mostly in leading roles such as CEOs and R&D managers. They all shared concern for the region's development and had a sense that the R&D units in their new, smaller organizations lacked the necessary resources to conduct the high-risk experimental research previously possible at MoDo. This joint awareness prompted them to initiate cooperation among the companies they then represented in order to recreate the previous synergy effects by pooling resources.

The initiators had diverse competencies and personal networks: some had experience in R&D and chemistry, some in marketing, while others were experienced project initiators. However, all occupied leading positions in their fields and were experienced in problem solving and proactive behaviour. In addition, the personal friendships between these managers developed through past events facilitated negotiations and discussions in the present – there was trust from the outset:

When we sat together at this point and wondered about potential solutions to the problems, we had the guts to think in novel ways and develop ideas. I think this can be pretty hard to do if you're talking to people you don't know.

There was also a cooperative spirit in the community:

There is a genuine desire to cooperate. You meet at ice-hockey games, in lunchrooms, etc. – it's like a family in many ways. When I walk the streets of the town, people sometimes approach to encourage our work. (First Processum CEO)

4.1. The early days

The managers initially met for coffee in an informal network. “We all wanted to act and improve the situation but we had to discuss how to do it”. They wished to support entrepreneurs and innovations related to the industry and create a network linking actors from the private and public sectors. However, they felt a need to legitimize their joint approach in order to mobilize resources and obtain R&D grants. In fact, public fund providers only considered formal counterparts and these exogenous demands prompted the 2003 formalization of their network cooperation as a jointly formed limited liability company, Processum AB (*Critical event 2*). “When it was all established, we could move on and involve other actors”.

The managers had personal interests (e.g. R&D) in this cooperative attempt and furthermore wished to improve the economy and preserve jobs in their home region; they also believed that cooperation would benefit the companies they now represented. In other words, their perceptions of future gains affected their present decisions. Though these companies were the owners of Processum they called themselves “members”, as they considered this form of cooperation to be network based and valued that approach. In other words, they saw themselves as members of a network of cooperating companies rather than as shareholders of the joint company Processum.

4.2. New actors joined the initiative

The need for additional R&D funding prompted Processum to approach the highly respected president of a local private research foundation. He assumed the role of enabler by providing financial support and by using his relationships with other actors, developed in the past, to build support for Processum (*Critical event 3*). His support increased the legitimacy of the Biorefinery Initiative, paving the way for financial support from the municipality, county, and EU Structural Funds that allowed Processum to recruit a CEO as orchestrator in 2003 (*Critical event 4*). Processum needed someone to work full time on identifying the needs and wishes of both the initiators and the growing number of other stakeholders, and to present a unifying vision that would offer “something for everybody” in order to build commitment. Note, however, that although the title CEO was used, this CEO role was not a traditional one. First, Processum was not a traditional organization as it encompassed several companies that saw themselves as members of a collaborative effort implemented voluntarily rather than as shareholders in a traditional business. Second, other actors, such as university researchers and politicians, were to be involved to a great extent, likewise voluntarily. The required sensemaking thus took place in a multi-organizational context, implying large differences in priorities, worldviews, frames of reference, etc.

It was initially difficult for the CEO to understand the fairly vague visions of joint R&D focussing on developing new ways of using wood. Ideas about how to realize this vision were fragmented, and it took considerable sensemaking for him and Processum's board of directors to gather, interpret, and merge these ideas into a coherent framework that was concrete and communicable. Not only did all individuals have to make sense of what this

opportunity to cooperate might imply, but they also had to agree on a shared account and develop a shared vocabulary. The CEO spent most of his time in face-to-face meetings and discussions, aimed at building a participatory sensemaking process. “In the beginning I was quite confused, there was a lot of meeting and talking to be done” (first Processum CEO).

The CEO's communication skills enabled him to assume the role of “sensegiver”. By framing Processum's vision accessibly, both verbally and visually in images and models, he made it easier to grasp and, ultimately, more engaging: “He has been able to talk about our vision in a simple way, in simple terms so that everybody can understand” (board chair of Processum). In that sense, he enabled the anticipated future to influence present decisions and action. These sensemaking and sensegiving processes ran in parallel; for example, during meetings, cues and interpretations were both received and given in an ongoing process of action and reaction. “I was presenting, receiving and discussing ideas and visions all the time” (first Processum CEO).

Nevertheless, the cooperation faced a crisis in 2005 when Processum's major funding was about to end. Moreover, some members were disappointed, as it had taken longer than expected to achieve the desired results. When their journey started, the past time at MoDo had served as a source of inspiration. At this point in time however, they had reached a state where “a new past” had developed, a past that included aspirations that had not been fulfilled. This “new” past time caught some of their attention and, as a consequence, their previous future orientation and their belief in their ability to create a “better future” had diminished. Matters came to a head: Should the members invest more or should the initiative end? (*Critical event 5*).

4.3. The moment of truth

At a general meeting in 2005 the CEO asked for the managers' support. After long discussions, the managing director of a large member company finally took a firm stand (*Critical event 6*). He had been appointed managing director only a few years earlier, but his support of Processum's vision had been firm from the start: “His company went from being a fairly passive member to a leading member when he became the new managing director” (first Processum CEO). He now took the lead by stating that his company would radically increase its financial support from EUR 1500 to EUR 50,000 annually. Six other companies then followed suit by increasing their contributions to the same extent.

Filled with new energy, Processum's board decided to enter Vinnväxt,¹ a national competition for public R&D funding. The board member who suggested this had previously worked for the national public agency organizing the competition and was able to guide the application work. Entering the competition implied that Processum would have to refine its vision. After brainstorming and discussions, Processum members agreed on the biorefinery concept and everyone felt that a breakthrough had been made: “It was tremendously important to find something everyone could rally around – the business orientation was then ready” (a Processum board member) (*Critical event 7*). The biorefinery concept often refers to a specific, integrated plant; the stakeholders' vision, however, was that companies throughout the region would unite in

performing the various functions of a biorefinery. Biorefinery-related products had been produced in this town during World War II, so the relevant production methods were already known and could now serve as a starting point. In other words, past times legitimized and facilitated the aspired future orientation. In retrospect, the members later also felt that the idea came at the right time: “It was fantastic timing. At first, nobody was talking about a biorefinery – now everybody is talking about it” (a Processum board member). The vision developed in the present time was thus more favourably future loaded than they were aware of at the time. They agreed on and made sense of relevant cues that proved to be very timely.

Company–university cooperation was required for the Vinnväxt competition and was considered in the interest of Processum. The previously mentioned manager of the supportive private research foundation was well known at the regional university, Umeå University, as the chancellor was a former classmate. He helped the CEO to establish R&D cooperation with the university's chemistry department (*Critical event 8*). Two professors were jointly recruited, and the deputy vice chancellor of Umeå University joined Processum's board. By 2006, the network cooperation had grown markedly and included several new partners from the industrial, public, and university sectors.

In 2007, Processum's project, the Biorefinery Initiative, became a Vinnväxt winner (*Critical event 9*) and Processum gained access to EUR 400,000 of funding annually over eight years. This allowed for considerable expansion and made Processum an attractive partner in research and in new R&D funding applications.

In December 2008, the first CEO resigned as he had started to work for one of the member companies, although he remained in Processum as the new board chair. A new CEO, with a different competence profile, was appointed (*Critical event 10*). He had a degree in business administration and previous experience of R&D, private–public sector cooperation, and mobilizing R&D funding. He was a “doer” and immediately started to work on applying for major project funding from EC Objective 2 funds. The application was approved in 2009, and to handle funding allocation among the member companies, the CEO formalized the process and initiated an R&D council. This formalization was intended to benefit the sensemaking processes, for example, by improving the quality of applications and reducing biases and inconsistencies, and the CEO felt that it succeeded in doing this. Requests for funding for R&D projects within Processum had to be presented to this council, which comprised involved professors from Umeå University and some of the initiating managers. Funding requests had to involve at least two member companies and preferably also representatives from the university. The CEO also appointed a council to decide on any investments in pilot testing. Processum's research activities generated new products, prototypes, process methods, patents, and patent applications. By 2009, fifty-nine cooperative R&D projects were underway.

In 2011, the Biorefinery Initiative was subject to a midpoint evaluation by a panel of international experts on behalf of the Vinnväxt funder Vinnova (*Critical event 11*). The evaluators were enthusiastic and considered the Biorefinery Initiative operations and results to be excellent, which led to continued Vinnväxt funding and facilitated funding from other public funding organizations. In 2013, SP – Technical Research Institute Sweden, one of Europe's leading research institutions, acquired 60% of Processum Biorefinery. Processum's legitimacy was thus further strengthened, as was its ability to access additional funds for R&D.

The critical events identified in the case are summarized in Table 1 on the basis of the central actors involved, these actors' resources, the activities, the required sensemaking including relevant time-phases and their management.

¹ The winning applicants receive funding of up to SEK 4 million annually for eight years. The objective is that the winners should become internationally competitive in their fields within this period. Vinnväxt also includes several support activities such as seminars, training/education, experience exchange, and knowledge dissemination and research (see <http://www.vinnova.se/In-English/Activities/Strong-research-and-innovation-environments/VINNVAXT>; accessed 2009-04-21).

Table 1
Critical events, key actors, their resources, activities, required sensemaking and the networking process phases.

Critical events	Key actor(s)	Resources	Activities	Required sensemaking	Managing time in process phases
1. Reorganization of the MoDo industrial site	- initiators	- cooperation experience - trust	- brainstorming - cooperation	How can we create business through synergy effects from cooperation?	Past loaded situation affecting future potential business making processes: a triggering phase.
2. Limited liability company	- initiators	- managerial positions (decision-making ability)	- formalization - legitimation	How can we increase legitimacy and access external funding?	A critical phase for acting and organizing for a future vision.
3. Support from fund provider	- private foundation manager	- R&D funding - contacts - legitimacy	- funding - relationship brokering	How can other co-creative actors be accessed and included in the process?	Sensing the current opportunity space and needed resources for new, future oriented, actions.
4. CEO appointed	- CEO	- communication and relationship development skills	- coordination - marketing - vision development	The CEO must understand the cooperation vision as well as his role in fulfilling and developing it.	Strategizing in order to make sense and formulate a clear vision and communicate it to network members.
5. Funding about to end	- members	- ideas - visions - company resources	- discussions	What would it take to develop the initiative and secure long-term financing?	Critical moment of truth - a go or no go situation and phase very loaded to the future.
6. "Do or die" situation	- company manager	- visions - company resources	- leading - inspiring	- What would it take to realize the cooperation vision and would it be worth the price?	Future loaded phase where relational investments were made.
7. Biorefinery vision	- Processum board	- commitment	- decision making - concept development	Refine and frame the biorefinery vision.	A breakthrough in sensemaking, strategizing and networking phase for the future with more confidence.
8. Cooperation with the chemistry department	- private foundation manager	- contacts - legitimacy	- relationship brokering and development	How can university/business perspectives and visions be integrated?	Networking phase with new actors strengthening the future vision.
9. A Vinnväxt winner	- Vinnova	- funding	- planning for the future	How can the Vinnväxt funds be best used in a fair way?	Critical positive event enabling the future bio refinery-vision to materialize and expand.
10. First leaves and new CEO appointed	- new CEO	- experience - a "doer"	- managing - coordinating and driving	How can the CEO make sense of the biorefinery concept and find his role in the network cooperation process?	New management, finance and networking capability-building phase for the future vision.
11. International evaluation	- international team of evaluators	- expertise - knowledge of similar processes	- evaluation	How can the biorefinery concept, the network cooperation vision, and the results achieved so far be presented in an appealing and comprehensible way?	A phase for creating credibility and trust building with international and institutional actors - the vision is materializing.

5. Discussion, conclusions, and implications

5.1. The sensemaking and reconfiguration processes

In sum, the case relates the story of how, in response to the critical event of MoDo's reorganization, a group of resourceful managers interacted in sensemaking, sensegiving, and sense-taking processes by meeting in informal groups, sharing interpretations of the change process and its likely consequences, and seeking cues for action.

This process of identifying cues in the form of common interests as well as opportunities for collaboration, and of framing them in a way that was appealing not only to internal but also to external actors, was on-going from the start. It has resulted in increasing and innovative cooperation not only among the companies represented by Processum's initiators but also among an increasing number of additional actors. In other words, the involved managers and units that had become separated during MoDo's reorganization were able to recreate some of the previous R&D cooperation and, moreover, formed a joint network with a number of additional actors in order to facilitate innovation (Spekman, 2000). Processum's initiators, and those who later became involved, were able to perceive, interpret, and construct the meaning of the emergent situation, and to reframe and change the agenda during the emergent process (Möller, 2010). Over time, they developed a shared biorefinery vision allowing the embedded actors to

comprehend the world and act collectively (Wlaar et al., 2006). As a result, the region's original resources have been extended and recombined in new, shared R&D projects and the number and range of relationships have grown considerably. In 2012, the core of the network (i.e. 20 members/shareholders of Processum) was cooperating in various efforts with about 160 other cooperation actors and new activities had been developed in the interfaces between the connected network actors. In sum, a novel structure of relationships and resource combinations, i.e. a reconfigured network, had been formed.

The sensemaking processes included acts of formalization regarding the legal form of the cooperation, initially mainly addressing the preferences of potential funders and other important external actors who favoured more formal business forms. Formalization was later also used internally, for example, by the R&D council for R&D applications. The reasons given for this measure and its perceived effects on the sensemaking processes, as described by the CEO, match, and thus lend support to, the positive effects of formalization suggested by Wlaar et al. (2006). This indicates that certain formalization practices can support network reorganization processes.

The sensemaking processes were enacted both individually and collectively (Weick, 1995) and were led at different times, for different reasons, by different actors. At the start, the initiating group of managers collectively attracted the interest of other actors. In later phases, the cues, initiatives, and resources provided by

“new” actors supported and developed the reconfiguration process, for example, by providing additional funding (*Critical event 6*) or brokering contacts with other key actors (*Critical event 8*). Individual actors also contributed resources that increased the momentum of the collective processes. These decisions resulted from individual considerations affected by cues enacted and received in interaction with other actors, in turn resulting in cues affecting the sensemaking of these other actors as well.

The sensemaking initially occurred in an informal, unplanned setting but later was allotted specific resources when a CEO was appointed as orchestrator to construct meaning that could then be offered to others. This exemplifies how sensemaking concerns not only interpretation, being “... less about discovery than it is about invention” (Weick, 1995, p. 13–14). The sensemaking had to occur at several levels, for example, at the R&D level with researchers and managers in search of suitable joint research projects and at a simplified level more adapted to a lay audience consisting, for example, of company managers and fund providers. Personal relationships facilitated communication and increased trust in the sensemaking processes that had to occur, for example, in new interfaces between Processum and the university representatives, to integrate the university and business perspectives. Companies and universities are known to have rather different cultures, often causing friction in interaction. By assuming an intermediary role, Processum could reduce this friction (Lundberg, 2013).

5.2. Critical events and their origin

The identified critical events originated from different contextual levels and several events had an exogenous origin. The initiating event, MoDo's reorganization, was triggered by increased global competition at the supra-macro level. At the national level, the Vinnväxt funding, the need to develop biofuel technology and the successful midpoint evaluation were keys to Processum's future expansion and development. At the regional and local levels, various individuals and their organizations at different times created key events that enabled the networking and reconfiguring process to materialize (e.g. critical event 6). Finally, some events took place at the endogenous firm (Processum) level (critical event 2, 4, 7 and 10).

A recurrent cause of critical events was funding aspects – both in a positive (critical event 3, 9 and 11) and negative (critical event 1 and 5) direction. In addition, preparations for funding applications caused changes (critical event 2 and 7) and when increased funding had been secured, adaptation to the new situation resulted in endogenous structural changes (critical event 4, 9 and 10).

5.3. Networking dimensions

From a network perspective, *actors*, *resources*, and *activities* form the central units of the present analysis of network reconfiguration and value co-creation. However, the paper focuses not only on actors in a general and static sense; individual agency, triggered by critical events, refined in sensemaking/sensegiving processes, and channelled via collective actions, was also a decisive issue (cf. Medlin & Törnroos, 2013). The event trajectories that unfolded in the network triggered a development process that constituted a dynamic part of the networking process in which key actors played decisive roles, especially in the formative stages in which interactions between key actors and the development of resource constellations were highlighted.

Sensemaking shaped individual meaning creation via the interactive process of network development between related actors. This specific meaning-creation process (sensemaking as well as sensegiving between individuals in the network) and the

evolving structure (through the network evolution and changing relational network space) encountered each other as the process unfolded over time as an on-going change embedded in the past–present–future trichotomy.

The vision of a biorefinery has numerous dimensions of which only certain key ones have been explored so far. This journey of discovery and sensemaking is aptly described by Weick et al. (2005, p. 413): “Answers to the question ‘now what?’ emerge from pre-suppositions about the future, articulation concurrent with action, and projects that become increasingly clear as they unfold”. This relates closely to the network concepts of role and position. Initially, the roles of the actors were not pre-determined but were voluntary and collectively configured for a common purpose. When the ideas were developed and more financial resources were obtained, the specific roles of key actors became a reality. When the reconfiguration came to embody a clear vision, the roles and positions of the actors became more institutionalized and the sensemaking and activities were focused on resource dimensions along with finding new actors to involve in the emerging Processum biofuel initiative.

The most conspicuous resource, key to several critical events, was funding. But no funding would have been obtained without the individual commitment by key actors of the network. This could be seen right from the start and on several occasions during the process.

5.4. The temporal dimension

With regard to time, it is obvious that past events affected and interacted with the present situation that evolved in the reconfiguration process. For instance, the past R&D cooperation in MoDo inspired and facilitated cooperation among the managers of the new units, while the region's past industrial history inspired and facilitated idea generation and the implementation of the biorefinery vision. Furthermore, in the unfolding of the present, future expectations and plans also had to be considered as anticipated future gains inspired action. In other words, critical events had a marked, intense, impact in the present, but they also impacted the conditions leading up to future events by changing the game board in terms of actors, resources and activities. For instance, the formation of a limited liability company (critical event 2) was a result of past cooperation, marked a change taking place in the present time, but was also intended to facilitate future funding from certain external actors. It thus had an impact on all the future processes following that particular event. Likewise, the initial funding, being critical at the time (critical event 3), was later consumed and therefore in a certain respect “finished” after some time, but without it the future path may nevertheless have been quite different. The case thus illustrates how events are contingent and based on other antecedent events including the context in which they occur as well as on expectations about the future. This complex pattern of influencing factors over time underline the importance of process studies if we are to understand change, e.g. in the form of network change and reconfiguration.

In sum, the mature business of wood processing in this location has taken a major step towards renewal and sustainability, as the once-threatened R&D sector has grown markedly rather than declined. Business interaction between individual actors has been key to understanding the instigation and development of this emergent process resulting in Processum and its private–public network of actors. This process has been reinforced by critical events triggered by actors outside the network as well as by internal network forces (Hedaa & Törnroos, 2008). It can be described as a dialogical process between individual and corporate actors interweaving in a time–space network.

6. Limitations and research implications

The paper's main limitation is its case specificity, but many directions for research are suggested by the present findings. One under-researched issue is unsuccessful business relationships and the roles of individual business actors in them. In some cases, actors are unwilling to act for various reasons, perhaps because they are trapped in relationships in which they have previously invested. Another issue is the indirect role of negative critical events in network reconfiguration processes (Van Doorn & Verhoef, 2008) and the impact of these events on relationship development (Edvardsson & Strandvik, 2000). In many cases, actors and companies learn more from failures than from more successful initiatives, as failures develop their ability to change and discern opportunities. Access problems in research might unfortunately loom large when attempting to study failures.

The process perspective, in conjunction with sensemaking, offers a novel way to examine network development in business (Halinen et al., 2012). Finally, it is worth taking a closer look at “sensegiving” and “sensetaking” in business network development, focussing on how individuals act as both “givers” and “takers” of sense in managerial decision-making and action.

7. Implications for business marketing practice

Business reconfiguration is challenging, especially for small and medium-sized enterprises, which usually have limited R&D resources. By joining forces in a network constellation, private and public actors were able to align their interests, provide external funders with well-thought-out plans, and secure additional R&D resources critical for sustained competitiveness. However, in practice, aligning the goals and expectations of a diverse set of actors is challenging and often time-consuming, demanding several critical orchestration capabilities. The following practical managerial considerations are raised by this study:

7.1. Critical capabilities

The key roles played by specific actors developing and investing in the Processum relational network indicate that individuals make things happen. The detection of cues and transmission of ideas to the network through joint efforts seemed to be decisive in this case, and the importance and power of a unifying vision are striking. Developing such a vision at an early stage of network cooperation is likely crucial.

In the initial stages of the case, marketing capabilities were needed as fund providers and partners needed to be convinced to support the project. This was a matter of sensegiving and of being able to frame the issues and vision in a way that was easy to understand and at the same time appealing to the listener. Later in the network development process, however, when the vision was in place and the network cooperation ongoing, other capabilities were sought. The second CEO had administrative and formalization capabilities that were needed as the scale and scope of the initiative kept growing. The case indicates that the set of critical capabilities for network orchestration may change over time, underlining the importance of choosing the right individual for a particular role at a particular time (Iturrioz, Aragón, & Narvaiza, 2015).

7.2. The importance of critical events

A deeper understanding of critical events and their potential effects relating to business network reconfiguration is useful for practitioners. Noting this more explicitly might pave the way for the more efficient organizing of collaborative initiatives and

improve the ability to exploit critical events in strategic networking processes.

7.3. Effects of formalization

Informal network cooperation was initially the preferred form of interaction in the presented case as trust was high from the start due to previous cooperation within the MNC. Later, demands from external fund providers resulted in the formation of a limited liability company. As the funding applications started to pay off and the number of network members (i.e. shareholders) and other partners grew, the formalization of routines and roles was also deemed necessary. Processes needed to be transparent to signal justice and fairness to the parties involved. Furthermore, the informal coordinating efforts initially performed in their spare time by the initiating managers needed to materialize into a full-time coordinating position (i.e. the CEO) as the scale and scope of the network initiative expanded. This increasing formalization indicates that certain formalization practices can support network reorganization processes. However, the extent and timing of such processes likely depend on the degree of prior interaction among network members, the present extent of networking activities, and demands and conditions external to the network.

References

- Abrahamsen, M. H., Henneberg, S. C., & Naudé, P. (2012). Using actors' perceptions of network roles and positions to understand network dynamics. *Industrial Marketing Management*, 41(7), 259–269.
- Alajoutsjärvi, K., Möller, K., & Rosenbröjjer, C.-J. (1999). Relevance of focal nets in understanding the dynamics of business relationships. *Journal of Business-to-Business Marketing*, 6(3), 3–35.
- Alvesson, M., & Skjoldberg, A. (1994). *Tolkning och reflection*. Lund, Sweden: Studentlitteratur.
- Anderson, J. C., Håkansson, H., & Johanson, J. (1994). Dyadic business relationships within a business network context. *Journal of Marketing*, 58, 1–15.
- Angelides, P. (2010). The development of an efficient technique for collecting and analyzing qualitative data: the analysis of critical incidents. *International Journal of Qualitative Studies in Education*, 14(3), 429–442.
- Cook, K. S., & Emerson, R. M. (1978). Power, equity and commitment in exchange networks. *American Sociological Review*, 43, 721–739 (October).
- Dawson, P. (1997). In at the deep end: conducting processual research on organisational change. *Scandinavian Journal of Management*, 13(4), 389–405.
- Dubois, A., & Gadde, L.-E. (2002). Systematic combining: an abductive approach to case studies. *Journal of Business Research*, 55(7), 553–556.
- Easton, G. (1995). Methodology and industrial networks. In K. Möller, & D. T. Wilson (Eds.), *Business marketing: An interaction and network perspective* (pp. 411–492). Boston, MA: Kluwer Academic Publishing.
- Edvardsson, B., & Roos, I. (2001). Critical incident techniques: towards a framework for analysing the criticality of critical incidents. *International Journal of Service Industry Management*, 12(3), 251–268.
- Edvardsson, B., & Strandvik, T. (2000). Is a critical incident critical for a customer relationship? *Managing Service Quality*, 10(2), 82–91.
- Flanagan, J. (1954). The critical incident technique. *Psychological Bulletin*, 51, 327–358.
- Ford, D. (Ed.). (2004). *Understanding business markets*. London: Thompson Learning.
- Ford, D., & Håkansson, H. (2006). IMP – some things achieved: much more to do. *European Journal of Marketing*, 40(3/4), 248–258.
- Gebert Persson, S., Lundberg, H., & Andresen, E. (2011). Interpartner legitimacy in regional strategic networks. *Industrial Marketing Management*, 40(6), 1024–1031.
- Gremler, D. D. (2004). The critical incident technique in service research. *Journal of Service Research*, 7(1), 65–89.
- Guba, E. G., & Lincoln, Y. S. (1983). Epistemological and methodological bases of naturalistic inquiry. In G. F. Madaus, M. S. Scriven, & D. L. Stufflebeam (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation* (pp. 311–334). Boston, MA: Kluwer.
- Håkansson, H. (1982). *Industrial marketing and purchasing of industrial goods: An interaction approach*. London: John Wiley.
- Håkansson, H., & Johanson, J. (1992). A model of industrial networks. In B. Axelsson, & G. Easton (Eds.), *Industrial networks: A new view of reality* (pp. 28–34). London: Routledge.
- Håkansson, H., & Snehota, I. (1995). *Developing relationships in business networks*. London: Routledge.
- Halinen, A., Medlin, C. J., & Törnroos, J.-Å. (2012). Time and process in business network research. *Industrial Marketing Management*, 41(2), 215–223.
- Halinen, A., & Törnroos, J.-Å. (1995). The meaning of time in the study of industrial

- buyer–seller relationships. In K. E. Möller, & D. T. Wilson (Eds.), *Business marketing: An interaction and network approach* (pp. 493–529). London/Boston: Kluwer Academic Publishing.
- Halinen, A., & Törnroos, J.-Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research*, 58(9), 1285–1297.
- Halinen, A., Törnroos, J.-Å., & Elo, M. (2013). Network process analysis: an event-based approach to study business network dynamics. *Industrial Marketing Management*, 42(8), 1213–1222.
- Havila, V., & Salmi, A. (2000). Spread of change in business networks: an empirical study of mergers and acquisitions in the graphic industry. *Journal of Strategic Marketing*, 8(2), 105–119.
- Havila, V., Salmi, A., & Havila, V. (1999). From dyadic change to changing business networks: an analytical framework. *Journal of Management Studies*, 36(6), 779–794.
- Hedaa, L., & Törnroos, J.-Å. (2008). Understanding event-based business networks. *Time and Society*, 17(2/3), 319–348.
- Heise, D. R., & Durig, A. (1999). Qualitative methods. In E. Borgatta, & R. J. V. Montgomery (Eds.), *Encyclopedia of sociology* (Vol. IV, pp. 1582–1586). New York: Macmillan.
- Henneberg, S. C., Naudé, P., & Mouzas, S. (2010). Sense-making and management in business networks: some observations, considerations, and a research agenda. *Industrial Marketing Management*, 39(3), 355–360.
- Hurmelinna-Laukkanen, P., Olander, H., & Blomqvist, K. (2012). Orchestrating R&D networks: absorptive capacity, network stability, and innovation appropriability. *European Management Journal*, 30, 552–563.
- IMP Group. (2002). An interaction approach. In D. Ford (Ed.), *Understanding business marketing and purchasing* (3rd ed.). London: Thomson Learning.
- Iturrioz, C., Aragón, C., & Narvaiza, L. (2015). How to foster shared innovation within SMEs' networks: social capital and the role of intermediaries. *European Management Journal*, 33, 104–115.
- Järvensivu, T., & Törnroos, J.-Å. (2010). Case study research with moderate constructionism: conceptualization and practical illustration. *Industrial Marketing Management*, 39(1), 100–108.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691–710.
- Lundberg, H. (2013). Triple helix in practice: the key role of boundary spanners. *European Journal of Innovation Management*, 16(2), 211–226.
- Makkonen, H., Aarikka-Stenroos, L., & Oikkonen, R. (2012). Narrative approach in business network process research—implications for theory and methodology. *Industrial Marketing Management*, 41(2), 287–299.
- Medlin, C. J. (2004). Interaction in business relationships: a time perspective. *Industrial Marketing Management*, 33(3), 185–193.
- Medlin, C. J., & Törnroos, J.-Å. (2009). Inter-firm interaction: the human role in change and stability. In *Paper presented at the IMP-Asia conference, Kuala Lumpur, 6–9 December*.
- Medlin, C. J., & Törnroos, J.-Å. (2013). Interest, sensemaking and adaptive processes in developing business networks: an Australian biofuel case. In *Paper presented at the 29th annual IMP conference, Atlanta, 31 August–2 September*.
- Meindl, J. R., Stubbart, C., & Porac, J. F. (1994). Cognition within and between organizations: five key questions. *Organization Science*, 5(3), 289–293.
- Möller, K. (2010). Sense-making and agenda construction in emerging business networks: how to direct radical innovation. *Industrial Marketing Management*, 39(3), 361–371.
- Mouzas, S., Henneberg, S., & Naudé, P. (2008). Developing network insight. *Industrial Marketing Management*, 37(2), 167–180.
- Pentland, B. T. (1999). Building process theory with narrative: from description to explanation. *Academy of Management Review*, 24(4), 711–724.
- Pettigrew, A. M. (1992). The character and significance of strategy process research. *Strategic Management Journal*, 13(S2), 5–16.
- Pettigrew, A. M. (1997). What is processual analysis? *Scandinavian Journal of Management*, 13(4), 337–348.
- Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch, & R. Wisniewski (Eds.), *Life history and narrative* (pp. 5–24). London: Palmer Press.
- Quintens, L., & Matthysens, P. (2010). Involving the process dimensions of time in case-based research. *Industrial Marketing Management*, 39(1), 91–99.
- Ring, P. S. (2000). The three T's of alliance creation: task, team and time. *Administrative Science Quarterly*, 18, 153–162.
- Roos, I. (2002). Methods of investigating critical incidents: a comparative review. *Journal of Service Research*, 4(3), 193–204.
- Simpson, B. (2009). Pragmatism, mead and the practice turn. *Organization Studies*, 30(12), 1329–1347.
- Spekman, R. E. (2000). A commentary on business marketing: a twenty year review and an invitation for continued dialogue. *Journal of Business-to-Business Marketing*, 7(4), 11–32.
- Stevenson, W., Zinzow, H., & Sridharan, S. (2003). Using event structure analysis to understand planned social change. *International Journal of Qualitative Methods*, 2(2), 43–51.
- Tidström, A., & Hagberg-Andersson, Å. (2012). Critical events in time and space when cooperation turns into competition in business relationships. *Industrial Marketing Management*, 41(2), 333–343.
- Tikkanen, H., & Alajoutsijärvi, K. (2002). Customer satisfaction in industrial markets: opening up the concept. *Journal of Business & Industrial Marketing*, 17(1), 25–42.
- Van Doorn, J., & Verhoef, P. C. (2008). Critical incidents and the impact of satisfaction on customer share. *Journal of Marketing*, 72(4), 123–142.
- Van de Ven, A. H. (1992). Suggestions for studying strategy process: a research note. *Strategic Management Journal*, 13(1), 169–192.
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510–540.
- Van de Ven, A. H., & Poole, M. S. (2005). Alternative approaches for studying organizational change. *Organization Studies*, 26(9), 1377–1404.
- Weick, K. E. (1969). *The social psychology of organizing*. Reading, MA: Addison Wesley.
- Weick, K. E. (1995). *Sensemaking in organizations*. London: Sage.
- Weick, K. E. (2001). *Making sense of the organization*. Oxford: Blackwell.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409–421.
- Wilke, R., & Ritter, T. (2006). Levels of analysis in business-to-business marketing. *Journal of Business-to-Business Marketing*, 13(3), 39–64.
- Wlaar, P. W. L., Van den Bosch, F. A. J., & Volberda, H. W. (2006). Coping with problems of understanding in interorganizational relationships: using formalization as a means to make sense. *Organization Studies*, 27(11), 1617–1638.