

**STRATEGIC DEVELOPMENT AFTER THE DISSOLUTION OF AN ALLIANCE:
TWENTY-FIVE YEARS OF DIVERGENCE AND CONVERGENCE IN THE
MINING AND CONSTRUCTION BUSINESS**

INTRODUCTION

The more we will see of strategic alliances, the more we are also likely to face complaints about alliance shortcomings and problems when alliances break up (Medcof 1997). Lambe, Spekman and Hunt (2002) found that about seven alliances in ten are not successful. Bleeke and Ernst (1995) and Klein and Zif (1994) found that international alliances face an especially high failure rate. Managers need insights to answer the question: How do we form a successful strategy after an alliance break-up? This article contributes to an answer to that question.

In this paper we analyze the twenty-five-years (1988-2012) of development after one of the most bitter break-ups of company cooperation in Swedish industrial history – the years after the strategic alliance between the two multinational companies, Atlas Copco and Sandvik. Their cooperation on the international mining and construction market¹ was a paragon for successful alliances and lasted for almost half a century (1947-1988/1989). Their divisions for rock drilling tools (Sandvik) and machinery (Atlas Copco) dominated the world market in the midst of the boom year 1988, when Sandvik felt provoked to terminate the alliance with one year's notice because of Atlas Copco's acquisition of a competing rock drill producer. The sudden estrangement caused major disruption within both companies. The former alliance partners had to find a new strategy not knowing that they also had to navigate in an international market recession during the following years.

THE COLLAPSE OF A SUCCESSFUL ALLIANCE

Sandvik and Atlas Copco were both established as industrial companies in Sweden in the middle of the 19th century; some of their operations developed to serve the mining and construction industries with steel drills (Sandvik) and compressed air machinery (Atlas Copco). Sandvik successfully introduced hard metal (cemented carbide) to the steel drilling tools in the 1940's, an innovation dramatically increasing their durability by 40 to 50 times. Atlas Copco had developed lighter machinery for rock drills. Together, their offerings ("The Swedish Method") had a superior competitive edge giving the companies a dominating position in the global market for years. The market was considered to be "mature", but the stable turnover provided profitability to both companies.

¹ We use mining and construction (M&C) as the label for the business of both companies in this field. At Atlas Copco the term Construction and Mining Technique has been used over the years, while Sandvik used Mining and Construction. Over the years also other labels have been used such as Rock Tools (Sandvik) and Mining and Construction Techniques (Atlas Copco). Since 2012 the business areas as been divided into to separate units in both companies.

In 1988 Atlas Copco still stood for market contacts and the setting of prices in each market. While Atlas Copco was responsible for product development and production of drilling machinery, Sandvik was responsible for product development and production of drilling tools. The prices for Sandvik's tools were renegotiated once a year. While Sandvik knew the market prices, Atlas Copco had no information about Sandvik's costs and profit for the drilling tools. Over the years, this seems to have given rise to considerable mistrust of Sandvik within Atlas Copco's management. Atlas Copco's turnover in the mining and constructions business was about four times bigger than Sandvik's.

The Rock Tools Division of Sandvik was at the time of the dissolution of the alliance the world's largest producer of rock drilling tools (oil drilling excepted) with a market share of 25-27 %. At the same time Secoroc – the world's second largest producer of rock drilling tools – had 18-20 % of world market. This company had its headquarters and main plant in the same region as Sandvik. In early 1988 Secoroc came up for sale, which turned out to be the triggering cue for the dissolution of the alliance.

The opportunity to buy Secoroc was first offered to Sandvik, but Sandvik's CEO found the price too high. Sandvik offered about half of the 800 mn Sw. crowns that Secoroc's owners were asking. Secoroc then turned to Atlas Copco, which immediately bought the company. Sandvik's CEO instantly perceived Atlas Copco's acquisition of Secoroc as a threat and as a way put pressure on Sandvik's prices for mining tools. Now mistrust reigned on both sides, and Sandvik's CEO at the time saw no other option than to end the long-standing cooperation and to dissolve the alliance.

Although the technical advantage of the alliance had decreased over the years and thereby also its combined competitive edge, the end of the alliance between Atlas Copco and Sandvik was unanticipated (Hyder & Eriksson, 2005). Despite this, it is obvious that the long partnership had been, and still was, very successful for the involved actors. The alliance was the international price leader, a profitable and stable cash cow for both companies, and the technology leader on the rock drilling market worldwide, although not as superior as previously.

The agreement for the strategic alliance had a term of notice of one year. Thus, the cooperation agreement would cease to be operational on August 1st, 1989. This gave both parties a year to prepare for going separate ways. How should each partner go about forming a successful strategy after the alliance dissolution? How would the market react in the new situation? Would it at all be possible to restore a successful strategy as separate, competing companies after the break down of such a long, profitable and market-dominating alliance?

PURPOSE

In this study we analyze the first twenty-five years (1988-2012) after the long alliance period (1947-1988/89) involving the two industrial, multinational actors Sandvik and Atlas Copco, operating worldwide in the global market for mining and construction. We describe expected and unexpected consequences of the strategies employed by the two companies after the break-up decision and its impact on the relationship between Atlas Copco and Sandvik, in

particular strategy formation. What patterns and effects can be identified regarding strategy formation, and how did the strategies evolve in the two companies?

Thus, the purpose of this paper is to describe, compare, and analyze the parallel evolution of strategy formation processes in Atlas Copco and Sandvik following their decision to go separate ways. By identifying significant factors for strategy formation in the post-dissolution period for these two companies we want to contribute to theories of company behavior in dynamic industrial networks.

For practical reasons we delimit this study to the analysis of the mining and construction (M&C) area at Atlas Copco and Sandvik. In other words, possible effects on or from other business areas within these companies have not been considered. Obviously, such network effects may have considerable impact, but that is beyond our present scope.

PREVIOUS RESEARCH

Faced with environmental dynamics the inflexibility of routines that may be quite difficult to alter may prevent an alliance from necessary adjustments and lead it into a phase of alliance decline. At this stage the alliance may either be dissolved or revitalized. Facing dissolution, organizations basically have three alternatives as (Peng & Shenkar, 2002) point out: going alone, liquidation of the business area, or forming a new alliance. If the mutual decision is revitalization, it is likely that a major restructuring campaign is needed to avoid falling into the trap of repeating earlier ineffective institutionalized behaviour.

Havila and Wilkinson (2002) conclude that relationship and alliance termination has received considerable less attention in the literature than other aspects of relationship development. The development of long term relationships (Ford, 1980) or the expansion and commitment phases in relationships (Dwyer, Schurr & Oh 1987) have been studied thoroughly, but the dissolution phase is a relatively neglected aspect of business relationships and alliances (Havila & Wilkinson, 2002). Understanding the dissolution of relationship would contribute to a more complete understanding of business relationships (Pressey & Qiu, 2007; Tahtinen & Havila, 2004.).

Still, little has been written about relational and alliance failure in business markets. A theoretical and practical basis is still to be established (Good & Evans 2001; Pressey & Qiu, 2007). The business-to-business literature has often failed to go any further than simply stating that relationships do fail, despite admitting the importance of the topic (Giller & Matear, 2001). Holmlund and Hobbs (2009) claim that the lack of research investigating the end of relationships is understandable because the ending of relationships and the consequent strategies that follow are often considered a disappointing outcome that is not talked about by participants. This might to a certain extent explain the researchers' limited access for empirical research into the phenomenon (Havila & Wilkinson, 2002; Pressey & Mathews, 2003)

Pressey and Qiu (2007) claim that during the 1990s, empirical research addressing relationship dissolution, failure and subsequent strategies has increased somewhat (for

example, Perrien and Ricard, 1995; Gronhaug et al.,1998). It has also experienced some growth in the present decade (for example, Havila and Wilkinson, 2002; Hallén and Johanson, 2004). Consequently, research on the dissolution and failure of relationships has reached areas of research including business-to-business relationships, consumer relationships, channel relationships, and professional services relationships (Tähtinen & Halinen-Kaila, 2000; Pressey & Qiu, 2007).

In their review of the existing research regarding the ending of relationships Havila and Tähtinen (2011) concluded that “the most studied aspect is where the ending process starts and the least studied are the third party influence, exit communication and the nature of ending; the outcome of the process”. Thus, only a limited number of the factors and events that influence the course of the process of relationships ended are studied and the nature of the process that follows the end of a relationship or alliance is far from determined.

Havila and Wilkinson (2002) claim that there is a need for a shift from the process of dissolution and what caused it, towards investigating what happens after trading stops, i.e. when the business relationship can be regarded as ended. Havila and Wilkinson (2002) call this phase the ‘relationship aftermath’. Studying the relationship aftermath draws attention to how the termination of alliances affects future business strategy of the involved partners. Havila and Wilkinson (2002) describe how relationship “energy” may be stored in a way that may reactivate previously dissolved relationships and also affect alliances formed after the alliance is terminated. Their paper is one of few to elaborate on what happens after the dissolution of alliances (Öberg, 2012).

Wassmer (2010: 162) calls for longitudinal studies to gain further understanding of “how and why firms change the configuration of their alliance portfolios over time” as little is known about what drives the evolution of alliance portfolios (Lavie & Singh, 2012). In fact, Wassmer (2010:162) recognizes the need “to disentangle the relationship between business, corporate, and alliance strategy” in order to understand the impact of terminated alliances and relationships on future endeavors.

As pointed out by Hennart (1988), Ganesan (1994) and Spekman, Isabella, MacAvoy and Forbes (1996), a definite weakness of alliance studies is that they fail to consider the inherent dynamics of the alliance. Ring and Van de Ven (1994) stressed early that scholars in this area have neglected this central process perspective. This still holds true and even more so for the events following the termination of a strategic alliance, where there is an apparent lack of studies (Peng & Shenkar, 2002). The end of a strategic alliance is usually seen as a failure by management, which might explain why valid and reliable information is hard to retrieve. No specific theory has been launched for development processes in post-dissolution settings, despite the many failures. Moreover, as outsourcing is increasing, stronger pressure can be expected on supply agreements within alliances which increase the possibilities of alliance break-ups. Thus, more detailed studies of the post-dissolution period attain stronger relevance.

Researchers have devoted their attention to Sandvik and Atlas Copco already before the alliance between the two firms but also to the alliance period. Johanson and Wiedersheim-Paul (1975) provided an introduction to the pre-alliance and early alliance period. Forsgren

and Johanson (1992) studied changes in the actor structure when the alliance ended in 1988. Hyder and Eriksson (2005) added insights into the alliance and dissolution processes as such. In this paper we focus on the development during the twenty-five years following the end of the alliance.

Most studies have characterized relationship ending and alliance dissolution as a negative occurrence for the previous partners (Chou, 2011; Holmlund & Hobbs, 2009; Morgan & Hunt, 1994). However, Holmlund and Hobbs (2009) claim that this is not necessarily so; managing the ending of a relationship in a suitable manner can entail positive outcomes in both the short term and the long term. Havila and Wilkinson (2002) even state that “termination may not be only a symptom of failure and dissatisfaction. It may be part of a planned strategy by which a firm changes its relationship portfolio as it moves into new markets and responds to changing market circumstances”.

Recognizing and managing situations in which relationships might need to be ended can strengthen and enhance customer profitability (Holmlund & Hobbs, 2009 Pfeiffer, 2010; Vaaland, 2006; Wagner & Friedl, 2007). According to Alajoutsijärvi, Möller and Tähtinen (2000) companies should aim for “beautiful exits” which would enable a company to grow from the ending of strategic alliances. Chou (2011) believes this notion deserves much more scholarly attention within the field of strategic management than is currently offered as relationship ending and alliance dissolution seem to be important elements of a firm’s reallocation of resources (Afuah, 2000; Christensen, 1997; Moriarty & Kosnik, 1989). Ritter and Gemünden (2003) argue that the ending of an relationship can determine the success of a company with regard to technological innovation.

Chou (2011) claims that ‘it is imperative to investigate the exercisability of relationship ending for attaining competitive advantage’, in particular when a company is ‘in the face of technological change’. According to Holmlund and Hobbs (2009) more research is needed to investigate how failed alliances and business relationships are handled and how their ending affects future business strategy. The relationship aftermath (Havila & Wilkinson, 2002) is an important and underresearched area.

METHOD

Ring and Van de Ven (1994) pointed out in an overview that an alliance is a collaborative relationship which requires focusing on many issues and their interconnectedness. As this is a complicated matter in a real-life context with unclear boundaries we follow the well proven case research approach formulated by Bonoma (1985), Yin (1989) and Johnston, Leach and Liu (1999).

Havila’s and Tähtinen’s (2011) review of the literature on relationship ending and alliance dissolution suggests that a one-sided view of the literature prevails. In more than half of the studies in the research area (27 of 45) data were collected only from either sellers or buyers without taking into consideration their mutual relationship. Tähtinen and Havila (2013) also claim that relationship ending should be studied empirically in a process view using methodology which enables longitudinal.

Methodologically the research field of relationship ending and alliance dissolution is varied. Both qualitative and quantitative data are used in multiple method approaches (Havila & Tähtinen, 2011). A slight majority of studies apply qualitative methods, which can be considered as a sign of the research field being in an early phase; theory development efforts prevail over theory testing (Tähtinen & Havila, 2013). Case studies using interviews and archival sources of data are common as well as studies using interview data. The use of secondary data sources such as industry associations' data, public data, and annual reports is less frequent (Havila & Tähtinen, 2011).

For our analysis new detailed primary and secondary data were collected for the period 1988-2012. However, the study of the alliance started already in connection with a two-year series of internal seminars for managers in 1993-1994 at the Sandvik Steel Division (now part of Sandvik Material Technology). More systematic collection of information began in 1996, although it was apparent that the terminated alliance was a sensitive issue to discuss. Secondary data about both companies were examined to make year-by-year comparisons. This includes search for and analysis of internal documents, annual reports (1985-2012), company magazines, newspaper clippings, and documented interviews and managerial biographies. The fundamental agreements of the alliance were recorded in written documents. We have identified and succeeded in interviewing several business executives directly involved in the alliance and the alliance aftermath over the years.

To find and interview both former and present managers and compare their experiences and information proved crucial for the interpretation of data and triangulation for increased reliability. Using the inherent time factor during the twenty years of the study proved fruitful for searching and validating information.

Considering the sensitivity of the issues and the possibility for misunderstanding, several drafts of the paper were discussed with managers in both companies involved in the alliance. This has enhanced the validity and reliability of data.

As company development cannot be taken out of context, we first introduce a theoretical framework before describing and analyzing the market and the main actors.

THEORETICAL PERSPECTIVES

The idea of what constitutes an efficient business organization has changed dramatically over the years. Ford's River Rouge plant in Michigan was, for example, an icon of the totally integrated, hierarchical organization of the industrial era, whereas today firms try to outsource non-core business processes, sometimes only keeping management of one core competence process of the value chain (Porter, 1985). Lambe et al. (2002) find that alliances are growing rapidly at the expense of other organizational forms.

An alliance is seen as a cooperation project between two or more organizations, acting in the field between market and hierarchy but more formalized than regular ongoing business relationships. As a strategic alliance represents long-term cooperation in order to achieve mutual benefits (Parkhe, 1998; Spekman & Celly, 1995) or superior customer value

(Kothandaraman & Wilson, 2001), the alliance makes it possible for each firm to concentrate on its core capabilities within the value-creating network (Kothandaraman & Wilson, 2001).

The interest in strategic alliances has resulted in a rich research field and has attracted researchers in many different fields such as evolutionary and institutional theory, social networks, markets-as-networks, learning and knowledge management and strategic change. Several models have been presented to describe and analyze business alliances, e.g., Kothandaraman & Wilson (2001), Håkansson & Johanson (1992), Mohr & Spekman (1994). The core concepts in the theoretical framework in the business literature seem to be *motives vs. results* (Varadarajan & Cunningham, 1994; Ariño & de la Torre, 1998; Lorange & Roos, 1991; Fey, 1995; Kothandaraman & Wilson, 2001), *resources and capabilities* (Faulkner, 1995; Eisenhardt & Schoonhoven, 1996; Barney, 1996; Hu & Korneliusson 1997; Sørensen & Reve, 1998; Chetty & Wilson, 2003), and *commitment and trust* in relationships (Bleeke & Ernst, 1994; Noteboom, 1996; Ring, 1996; Parkhe, 1998; Jennings, Kendall, Gillin & Christodoulos, 1999; Boersma, Buckley & Ghauri 2003).

The main purposes of these studies concern the activities and resources created as a result of the alliance, how conflicts are managed, and the outcome of the alliances. Lorange and Roos (1991) cite three reasons for the high failure rate of alliances: (1) complex decision-making, (2) merging of separate corporate cultures, and (3) different and even ultimately conflicting strategic intents of the alliance partners. Serapio, Jr. & Cascio (1996) found six alternative reasons for ending an alliance, including the case that the goals of the alliance had been fulfilled. Other factors are presented by Hamel (core competence), Powell (institutional reasons), Pennings (differences in strategy), Eisenhardt (management) Gulati (networks) and Van den Ven (innovation and strategy). Research has concentrated more on finding out why strategic alliances fail than on what happens after the failure.

Peng and Shenkar (2002) find that “none has examined the impact of failed joint-ventures on future alliance activities”. Models of alliance behavior typically end up in two alternative paths, e.g., “continuation” and “termination” (Hyder & Eriksson, 2005), or “going alone” and “new relationship” (Peng & Shenkar, 2002). When an alliance ends, existing strategies will most likely be subject to alterations to fit the requirements of the new situation at hand, implying strategic change. Whether the new strategy is rationally planned or gradually evolving and to what degree remains an open question.

Rajagoplan and Spreitzer (1997) conclude in their overview that the strategic change literature principally belongs to two different schools of thought, the “content school” and the “process school”. The content school is focused on the antecedents and consequences of strategic change through the use of large samples and statistical methods (e.g., Ansoff, 1965; Andrews, 1971; Porter 1980), and the process school is focused on the role of management in strategic change processes by the use of longitudinal in-depth case studies (e.g., Mintzberg & McHugh, 1985; Mintzberg & Waters, 1985, Quinn, 1980). Thus, in content-based studies the correlations between structure of organizations and strategy-forming bodies and the content of strategy is usually the primary interest of research, while process-based studies put greater

emphasis on how strategies form rather than simply what they contain (Rajagoplan & Spreitzer, 1997).

The process of strategy formation has been discussed from many perspectives by several researchers (e.g., Cyert & March, 1963; Mumford & Pettigrew, 1975; Mintzberg, 1978; Mintzberg & Lampel, 1999). Quinn (1978) describes the strategy process as being logically incremental, i.e., as a step-wise process emerging over time as managers make small, but conscious and purposeful adjustments in strategy. Thus, the content-based and static view of strategies that predominated in early writings on strategy (Rajagoplan & Spreitzer, 1997) has increasingly been questioned, fostering a tendency to view strategy formulation as being either deliberate or emergent (Boyd, 1991). Mintzberg and McHugh (1985) argue that both deliberate and emergent approaches to strategy formulation are relevant to organizations due to environmental dynamism. Consequently, strategy formation is more complicated than the deliberate/emergent dichotomy implies, because different contexts foster different strategic development paths.

Slevin and Covin (1997) mean that the effects of a company's organization structure and environmental context has implications for the relationship between a company's dominant strategy formation pattern and its sales growth rate. More specifically, they argue that planned strategies tend to be more positively related to sales growth among rigidly structured firms operating in hostile environments. In contrast, emergent strategies were found to be more suitable for sales growth in firms with organic structures operating in more stable environments. This indicates that the tendency for an organization choosing a predominantly planned or emergent strategy formation process is context dependent.

In describing the importance of historical contexts and choices the concept of path dependence (e.g. North, 1990) can complement the contextual perspective. The main mechanism affecting path dependence is the interaction between actors, e.g. companies and institutions, such as governmental bodies (North, 1990). However, business alliance partners may also be regarded as institutions, since they embed the focal firm in a structure of connected business relationships (Burt, 1980, Granovetter, 1985). Thus, a company may act according to the common rules and standards of an industry, but also in alternate ways when developing new business practices. This, in turn, affects the future paths taken by the firm.

Chou (2011) claims that the ending of an alliance or a relationship leads to reconfiguration of an aggregate structure, known as a strategic network (Gulati et al., 2000; Jarillo, 1988) or value constellation (Normann & Ramirez, 1993), and thus affects how resources are used individually and collectively. As innovation can be seen as the reshuffling of resources in order to generate value (Fagerberg, 2004; Håkansson & Waluszewski, 2007; Van de Ven, 1986; Van de Ven, Polley, Garud & Venkataraman, 1999). This would connect the ability to manage dissolution of alliances tightly to the innovative capacity of a firm.

Vargo and Lusch (2006) claim that "the customer is always a co-creator of value" which ties the formation and dissolution of relationships with customers to value creation. Also, the notion of open innovation (Von Hippel, 1976, 1977) manifests the innovation process as a

collaborative venture between users and producers. Von Hippel (2010) claims that empirical studies show that many users - from 6 percent to nearly 40 percent - engage in developing or modifying products of which others might be producers (Urban & von Hippel 1988, Herstatt & von Hippel 1992, Morrison et al. 2000, 2004, Franke & von Hippel 2003, Franke & Shah 2003). The paradigm of open innovation rests on the notion that firms should use external as well as internal ideas in their innovation endeavors (Chesbrough, 2006). Hence, the dissolution of alliances affects the innovative capability of firms and reshuffles the network that firms can utilize in their innovation work (Chou, 2011; Gulati et al., 2000; Jarillo, 1988).

Understanding the post-dissolution phase of an alliance aids understanding the innovative capability of the involved firms.

THE BUSINESS CONTEXT AFTER THE DISSOLUTION OF AN ALLIANCE

To interpret the behavior of the previous partners after the dissolution of the alliance it is necessary to grasp the company context during the twenty-five year period. A fundamental characteristic is the strong impact of the international business cycle on turnover and results. The decisions to break up the alliance were taken at the peak of a boom period. Little did the company managers expect the deep downturn that the business cycle would take, lasting until 1993. The depth of the downturn of the business cycle is illustrated by the fact that the decision of the Swedish government to apply for membership in the European Union was motivated by arguments referring to the difficulties for the business sector. Sweden entered the EU in 1994 after which a slow recovery took place, but this was followed by a considerable downturn in 1998-2000. Market growth would gradually return in 2002 and accelerate in 2004-2008, but a new, rapid downturn occurred at the end of 2008.

Most of the international business markets of the alliance were in Europe and the US. Thanks to the major political changes that took place at beginning of the 1990s new market opportunities emerged in Eastern Europe, Asia and South Africa. Moreover, innovation in information technology opened up for changes in product development and market communication. Product development was also challenged by new environmental and energy restrictions. The mining and construction fields also found new application areas as the offerings changed from separate products to systems, where services constituted a growing part.

The main competitors of the alliance were Secoroc for hard metal rock tools, for hydraulic machinery the Finnish producer Tamrock, and for pneumatic machinery the American company Ingersoll-Rand. Other large competitors were and still are the South African company Boart, the Japanese company Furukawa, and the French companies Secoma and Montabert, especially in Europe, Africa and Asia.

MILESTONES IN POST-DISSOLUTION DEVELOPMENT AT SANDVIK MINING AND CONSTRUCTION

In 1988 Sandvik Mining and Construction (M&C) was one of six business areas at Sandvik, and it accounted for 8 % of the invoiced sales as well as profits for the Sandvik Group - the world's largest producer of cemented-carbide products. Cemented carbide is a powder-metallurgical product with high durability. It has three main fields of application: tools for metal cutting, rock drilling products and wear parts along with high-quality carbide blanks. M&C was the world's leading supplier of cemented-carbide tipped rock drilling tools for mining, civil engineering and water-well drilling. Its products included tools and tool systems for working in all types of rock and for all current drilling techniques.

At the beginning of 1989, Sandvik could present record results for all its operations. The company was at the height of a business cycle but – as mentioned – not knowing it would soon face one of the toughest market recessions after World War II. However, the situation for Sandvik's M&C area looked foreboding as nobody had expected or wanted the strategic alliance with Atlas Copco M&C to end. Sandvik had continuously made positive remarks in its annual reports about the cooperation with Atlas Copco. Now Sandvik's management would instead be preoccupied with quick, defensive actions and become a competitor to Atlas Copco.

After August 1st, 1989, the company would obviously be totally cut off from the international market for an entire business area. Hence, in the short run, Sandvik needed a sales organization and a large number of sales representatives; in the long run it needed to find a replacement for Atlas Copco and the equipment in the systems offerings. In all operating areas there was a trend towards increasing mechanization and more sophisticated, capital-intensive machinery. This put high demands on operational reliability and performance of the tools. There was a movement to increasingly complex system machinery which could function under extreme conditions.

Sandvik's strategic aim was to consolidate the business area for the mining and construction market. First, management had a one-year lead in which to develop a market and sales organization for M&C and recruit sales personnel. On August 1st, 1989, a new sales organization (170 salesmen) was put into operation and connected to the already established market organization for other cemented carbide products (Coromant). A sign of the new, competitive situation was that forty of these salesmen were recruited from Atlas Copco. During the alliance period there had been a silent agreement (including Secoroc) that the companies would not compete for personnel.

Secondly, for the long-term strategy at the alliance's end, Sandvik had an apparent alternative on the market for machine equipment. Secoroc had some cooperation with the Finnish company Tamrock. As that cooperation automatically ended when Atlas Copco acquired Secoroc, Tamrock needed a new partner. Consequently, a new strategic alliance was formed between Sandvik and Tamrock: the Tampella Group. Sandvik's intent was to buy Tamrock, which had to be done taking into consideration the present ownership and various financial issues in the overall conglomerate in the Tampella Group. Sandvik could buy 25 % of

Tamrock in 1990, increase its share to 49.6 % in 1996 and to 100 % in 1997. After a major restructuring of the organization at that time, the company was integrated in the new business area, establishing Sandvik Mining and Construction (SMC), which replaced Sandvik Rock Tools.

Besides the acquisition of Tamrock, Sandvik M&C bought five other companies between 1989 and 2003 and formed seven new joint ventures. After 2007 still more new companies were added and alliances in specialized areas (niche-alliances) were set up. The main purpose of the acquisitions was to get better access to customers in America, Eastern Europe and Asia. One company was closed during the period.

The generally weak business conditions during the 1990s were met with comprehensive projects to increase efficiency. Autonomous work teams were introduced, and the quality strategy was strengthened by ISO 9000 certification of several factories. After the formal integration of Tamrock and some of the acquired companies, the business area was again restructured with the aim to reduce costs considerably; the number of employees was reduced by a thousand during the second economic downturn in the 1990s.

The managerial situation at Sandvik seems to have been stable during the period. The Sandvik Group had the same CEO as during the end of the strategic alliance. A shift took place in 1997. Management for Sandvik M&C changed only gradually over the period.

There was also a significant increase in product development activities, in contrast to the time before the dissolution of the alliance. Major new products were, in principle, introduced every year. A significant technology shift was undertaken in the mid-1990s, when compressed air was replaced by hydraulic fluid power for drilling machinery – a definite shift from the predominant technology during the cooperation with Atlas Copco. A decision was taken to increase R&D gradually from 2 % of invoiced sales to reach the company group's average of 4 % in order to strengthen the development of electronics and automated solutions. The integration of Tamrock coincided with a major change in product technology and product complexity. With the shift in technology and the development of more complex systems selling, Tamrock's connection to the East European market also helped Sandvik start to develop these markets.

The milestones in the development that followed for M&C in 1988-2012 are summarized in Figure 1.

Figur 1. Milestones in Sandvik's Mining and Construction 1988-2012



MILESTONES IN POST-DISSOLUTION DEVELOPMENT AT ATLAS COPCO MINING AND CONSTRUCTION

As was the case for Sandvik, Atlas Copco also reported record results for 1988 regarding invoiced sales, return on capital as well as gained market positions. Earnings for the Group in 1988 for the first time passed 1 bn Sw. crowns.

In 1988, Atlas Copco's business area for Construction and Mining accounted for 33 % of the invoiced sales (and 25 % of profit) of the Atlas Copco Group, making the business area a major actor in developing, producing and marketing hydraulic and pneumatic power equipment. The business area was one of three major business areas. It targeted the same customer companies within the mining and construction field as Sandvik M&C.

The acquisition of Secoroc had immediate managerial consequences. Four of the eight members in the managerial team at Atlas Copco M&C left or had to leave their positions. This indicates that Sandvik's reaction to the acquisition to Secoroc was unexpected. Atlas Copco also changed CEO in 1991.

The managerial team for M&C formed a strategy based on the perception of Atlas Copco as "the owner of the market relation" standing for the "important investment products" in the customer offerings for many years. Now they had new rock drills, launched under the new brand Atlas Copco Rock Tools, which were to be marketed separately from the already established Secoroc-brand. Secoroc had at the time production in nine different countries and sales units or distributors in seventy countries. A favorable forecast was given for the business area. An aggressive market strategy, built on strategic acquisitions, was embarked on.

Already in 1989 Atlas Copco was to speed up its acquisition policy, led by the strategic vision of market dominance. Hence, in this year alone it bought four American, British and Japanese companies. A rapidly declining business cycle and the price war with Sandvik and other companies had an adverse effect on revenue, resulting in an aggravated financial position for

the business area. The following years were to be marked by the strategy of acquisitions and a subsequent need to reduce overcapacity.

The year 1990 was the last year of the current CEO at Atlas Copco at that time. In his last annual report he confessed:

The business area Construction and Mining has been hit hard. The main part of the decrease in profits of more than 400 msek [400 mn Sw. crowns] is equally due to three circumstances happening at the same time: a weak market declining in volume, a price war on products and restructuring costs. The problems within this business area have had a high priority for management during 1989-1990 and have to be solved during 1991.

The turbulent situation was marked by the absence of a separate profit or loss statement for the business area in the annual report for 1990. The actual result for 1991 turned out to as a loss of 47 mn Sw. crowns.

The new CEO for Atlas Copco emphasized two new strategic directions: to increase flexibility in the organization through decentralized decision-making and to pay more attention to emerging markets in Eastern Europe and Asia. Important market changes for the company were the reopening of the South African market in 1992 and Sweden's EU membership in 1994. A new distribution center was established in Europe.

In 1994 Atlas Copco for the first time emphasized R&D as a strategically important process; 3 % of sales would be used for that purpose with the intent of a further increase to 4 % in a couple of years. The products became technically more advanced, and product introduction became a key yearly event.

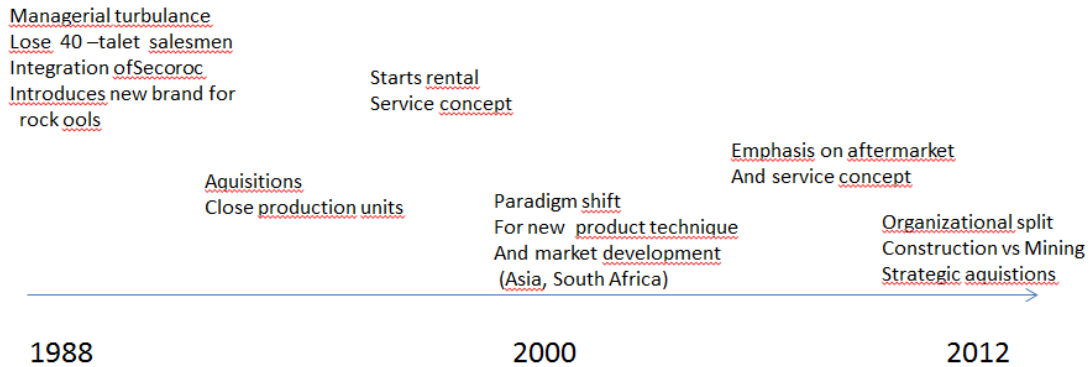
Despite the market imbalance, Atlas Copco continued to buy companies in the market, but the slow market and keen competition also forced the company to close over twenty plants during the period. Costs remained high for restructuring production within the area for most of the period. In the mid-1990s Atlas Copco started an active outsourcing of component manufacturing.

In 1997 Atlas Copco started a special unit for rental of equipment. This proved to be important in the US, which was about to become Atlas Copco's most crucial market region. Atlas Copco emphasized service and the after-sales market as key elements in the offering. It also introduced interactive computer-based educational tools for customers in order to make the continuous flow of new products more efficient.

The late 1990s saw a recession in Asia, Australia and South America, which forced the mining and construction area once again to restructure operations and reduce the number of employees. The situation improved considerably at the beginning of the new millennium. Still, reconstruction of units was important, and decisions were taken to reduce the number of different brands.

Milestones for the period are summarized in Figure 2.

Figure 2. Milestones in Atlas Copco's Mining and Construction 1988-2012



DISCUSSION

At the end of the alliance, the mining and construction business at Sandvik was about 8 % of company business and only 25 % of the alliance's turnover. For Atlas Copco the M&C sector was about 33 % of overall company business. Twenty-five years after the break up, both companies had made a very strong comeback in the global mining and construction sector with M&C representing about 42 % of the total turnover in both companies. The business area is deemed to be well consolidated again.

The empirical data range over the first twenty-five years after the break-up of the alliance between these two multinational companies in a mature market. Instead of continuing a rather comfortable and world-leading alliance, Sandvik and Atlas Copco had to get going on their own, becoming antagonists in 1988. The reason for the break up was the mistrust harboured by the new management at Atlas Copco's division for mining and construction. They overestimated the importance of the compressed air equipment because of its part (3/4) of the prize of the total offering.

Since 2001, Atlas Copco pegged Sandvik as its number one competitor in the annual reports. Twenty-five years after the break-up of the alliance, Atlas Copco as a group announced record results, but the mining and construction sector lost weight in the company structure: from 33 % in 1988 to 18 % in 2003. However, the situation stabilized in the company and a new growth period in the market made the M&C area grow rapidly to embrace 42 % of Atlas Copco. By then the mining and construction area had been growing at the same rate in both companies during the first decade of the new millennium, getting established as a major part of both companies and regaining a world leading position in the field.

Toward the end of the strategic alliance both companies had agreed to change the positioning of their offerings from "The Swedish Method" to become "Productivity Partners" with their

mining and construction customers – to develop a competitive advantage through systems selling that would support the productivity for their customers' businesses. Gone were the days when it was possible to develop top quality rock tools separate from rock machinery and service commitments. It was obvious for both companies that the systems solution would become more technically advanced and include a high degree of automation at the customer level and service support from the systems provider.

However, the abrupt end of the alliance and the development of the deep market recession changed the market conditions drastically. The companies' customers became confused. Other major suppliers saw their opportunity in the market. In practice the following years turned into a price war in a rapidly shrinking market. Neither of the companies was internally prepared for major changes. Profit became the short-term victim for both companies, but as the study shows profound differences characterized the development of the mining and construction business area in each company.

In 2012 both the Atlas Copco and Sandvik groups were still about equal in total turnover, both being among the largest and most important export companies in Sweden with a firm foundation in the market and both meeting their profit targets. Their shares on the Stockholm Stock Exchange developed in a parallel manner as if they were the shadows of each other.

However, the evolution of the sector for the strategic alliance – the construction and mining business area – was very different in terms of importance, earnings and number of employees for the two companies. Construction and mining increased its part of the invoiced sales within the Sandvik Group from 8 % to 29 % between 1988 and 2003, while it decreased from 33 % to 18 % within Atlas Copco. Sandvik held about 25 % of the estimated world market for construction and mining, while Atlas Copco held 12-13 %. Invoiced sales (and profit) for Sandvik's business area for mining and construction were twice as big as Atlas Copco's. During the first decade of the 21st century the increased demand in Eastern Europe and Asia played an important role in the recovery for the M&C sector for both companies and turnover, profitability and share of overall business grew in parallel, which marked faster growth for Atlas Copco during that decade.

Atlas Copco considered itself to have at least three major advantages at the time of the dissolution of the alliance: (1) it had a well-established organization with sales representatives around the world, (2) it had for many years handled the direct and formal customer contacts for the alliance, and (3) it had control/ownership of a complete customer offering, a total system with machinery, drill tools and service. In practice, these advantages did not prove to be crucial, and they were above all outweighed by several other decisions and consequences.

Thus:

- Atlas Copco applied a strategy of *market dominance*, which resulted in a number of rapid *acquisitions*. It did not only buy Secoroc but ten other companies during the deep recession 1991-1993 alone. This led to a small increase in sales but a large

increase in the number of employees. Atlas Copco had to close sixteen plants during the period.

- Moreover, Atlas Copco replaced a large part of the *management staff* for the business area. The principal focus of the top management was on another main market segment – the industrial sector – as the main business area for growth, whereas the construction and mining sector was treated as a ripe market for “cash cow” operations.
- Drill tools were perceived as a *commodity/consumable* of less importance for the total offering. However, in 2008 the *aftermarket* (including service) had reached about 50 % of the turnover.
- Atlas Copco had to invest in the marketing of a totally *new brand* of rock tools, competing against its former offer which was the leading brand in the market.
- Many *sales representatives* were lost to Sandvik, which had become a competitor.
- It had to pay 0.8 bn Sw. crowns for Secoroc.

Sandvik seems to have had a much more difficult situation at the outset in 1988, threatened as it was with becoming totally cut off from the market and losing the essential connection to a producer of drilling machinery. Actually, Sandvik’s position strategic actions proved more successful in many ways.

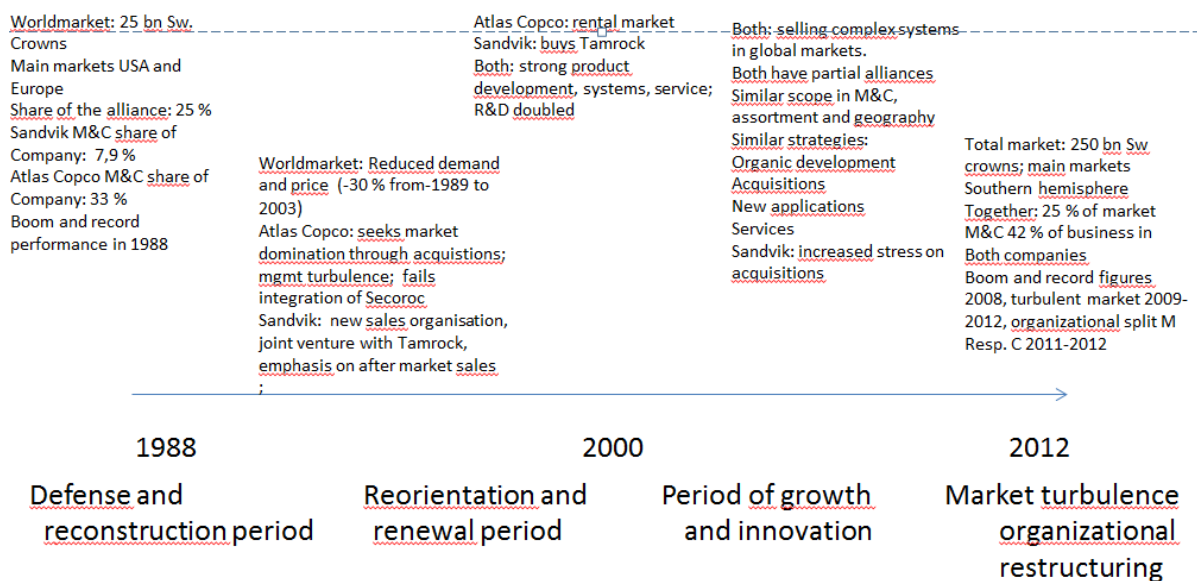
Thus:

- Sandvik had full *market information* as the alliance had provided Sandvik with access to Atlas Copco’s customers and prices.
- It managed in slightly more than a year to build a *sales organization* and recruit 170 salesmen for global customer contacts before the final termination of the alliance. Sandvik could continue to offer *the same brand* for the rock tools that the customers used to buy. About 25 % of the recruited sales force came from Atlas Copco and could hence continue to offer the same brand of rock drills as before, which supported Sandvik’s credibility with key accounts.
- Sandvik could immediately replace Atlas Copco by starting a *new strategic alliance* with Tamrock, which was *acquired* gradually, and five years later was totally *integrated* into Sandvik Mining and Construction.
- It took advantage of emerging markets and advanced systems solutions, and focused on *organic growth* during the turbulent market restructuring period plagued by recession.
- It avoided making major changes in the *management* team and organization for the mining and construction area as a direct consequence of the break-up decision. Sandvik’s weak spot might have been the *time factor*, but as Atlas Copco had agreed on a one-year transitional period, the company management was able to overcome

both the problem of hiring a sales force and finding a new partner for drilling machinery.

- Sandvik could benefit from the international market organization of the Sandvik Group's main business area (Coromant), which also had a more *advanced logistics system for rock drills* than Atlas Copco.
- For several years Sandvik led the R&D in the field of drill tools to create *product differentiation*. The company's position as an R&D leader gave access to new, demanding market segments (e.g., drilling under very difficult climatic circumstances) and a strong overall market profile.
- Sandvik was *careful and selective in acquisitions*. Rock Tools had made two acquisitions before the break-up. Also, Tamrock's market organization opened up new customer contacts in the emerging Eastern European market.

Figure 3. Mining and Construction development at Sandvik and Atlas Copco 1988-2012



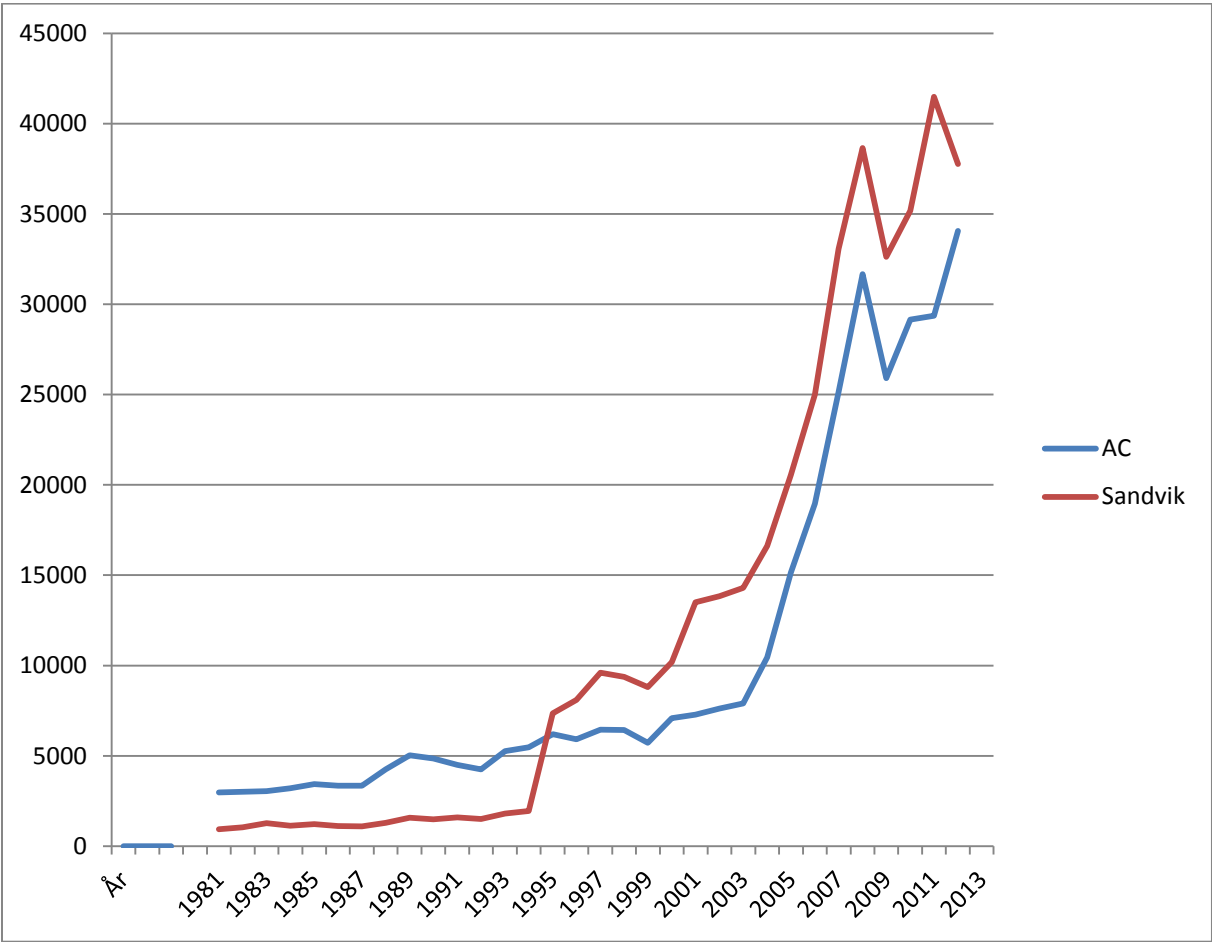
Both Sandvik and Atlas Copco have strong positions in Europe and in North America. They also positioned themselves to grow in Asia and Eastern Europe with ambitions for South America and Africa as the conditions improve in these regions. It seems likely from the result so far, that their strategic actions will converge more in their general strategy, but that they diverge in their focus on main user segments and geographical markets.

Atlas Copco's strategy after the break up was more idea-driven, while Sandvik's was more contextual. The content of Atlas Copco's strategy was, however, contrary to market development (in the short run). Sandvik's reliance on the emerging, organic process proved better in the situation at hand.

The stronger development of Sandvik is illustrated by the development of the turnover in the two companies according to their annual report for the period 1981-2007 (Figure 4). The sharp increase in Sandvik's turnover in 1995-1996 is due to the acquisition of Tamrock. From that year on the offerings of both companies are compatible as Secoroc's rock tools are included in Atlas Copco's figures. The development from 1998 ran in parallel, although the lead was taken by Sandvik. From 2009 both companies have been hit by the turbulence in the world economy following the international financial crisis. The effects of this long recession are yet to be seen.

In order to enhance marketing and control both companies divided mining and construction respectively into separate business areas in 2012. To facilitate comparisons both areas are included in figure 4.

Figure 4. Turnover development for the Mining and Construction business areas at Atlas Copco and Sandvik 1981-2012 (mn Sw. crowns) ^a



Note:

^a Sandvik Rock Tools was not set up as a separate profit centre until 1984. Data for 1981-1983 are estimates.

CONCLUDING REMARKS

Only few studies have focused on the processes that follow after the dissolution of alliance relationships. Our longitudinal study aims at filling in the apparent research gap in the alliance aftermath literature (e.g. Good & Evans, 2001; Giller & Matear, 2001; Havila & Wilkinson, 2002; Pressey & Qiu, 2007; Chou, 2011; Havila & Tähtinen, 2011; Öberg, 2012). We see theoretical implications regarding strategy and network research as well as implications for management.

Theories on strategic alliances describe the reasons why this alliance once was created, i.e., to add complementary strength to the actors, and can also explain why it ended, i.e., increasing mistrust preceded or followed by actions seen as more or less hostile. However, they do not provide much insight into the market conditions pertinent to the collapse of the alliance, in particular the price level in the market that had fallen with about 30 %. For example, Mohr and Spekman's (1994) model for network cooperation seems to explain the failure of the alliance as it points out the importance of commitment and trust, communication behaviour, and conflict resolution techniques – none of which seems to have been dealt with satisfactorily in this case, despite the longevity of the alliance. However, the model lacks some of the concepts relevant in analyzing the post-dissolution period. An analysis of strategic development after the dissolution of the alliance has to go beyond the individual companies and embrace the network and the market context.

As illustrated in Figure 3 we have identified four post-dissolution periods: the first marked by *organizational defense and reconstruction*, the second of *reorientation and renewal of markets and offerings*, the third being a period of *growth and innovation*, and lastly a period with *market turbulence and organizational restructuring*. How the companies have fared in these periods can be analyzed in terms of their managerial and technical resources, the knowledge and control of business relationships to customers as well as to new alliance partners, and their position in the business network in terms of product development and innovation. The analysis follows the process school of strategy, but does not support the idea of small, incremental adjustments (Quinn, 1978), but rather two, parallel routes: a long term path of development and innovation leading to more complex offerings, and another characterized by pragmatic and drastic changes (especially in organization and capacity) due to environmental dynamism (cf. Mintzberg & McHugh, 1985; Slevin & Covin, 1997).

Kothandaraman's and Wilson's (2001) model for value-creating networks provides contributions to a model for post-dissolution strategy by emphasizing the importance of superior customer value and core capabilities. Initially, Sandvik's strong R&D efforts for leadership in hard metal technology proved more conducive to growth than Atlas Copco's attempt to gain market dominance through extensive acquisitions. More recently Atlas Copco put the same emphasis on R&D, but seems to have been more successful in acquisitions.

Researchers have concluded that alliance dissolution seems to be an important part of a firm's reallocation of resources (Afuah, 2000; Christensen, 1997; Moriarty & Kosnik, 1989) and connected to companies' success within technological innovation (Ritter & Gemünden, 2003). This is also an area in need of research (Chou, 2011; Fagerberg, 2004; Håkansson &

Waluszewski, 2007). Our findings indicate that the studied companies faced different opportunities after the dissolution of the alliance between them. The previous partners needed to find new collaborative users and customers of their products. In accordance with the open innovation perspective (von Hippel, 1976, 1977) this changed their innovation output. New configurations of their strategic network (Gulati et al., 2000; Jarillo, 1988) imposed different conditions for the firms and subsequently affected their product development.

However, there are factors missing in the models used for the alliance period, which should be considered for a post-dissolution model. First, the *surrounding network* may be different for the partners when they have to act separately. The network provides options, and for Sandvik these made it possible to add a sales force to the market organization for another business area. Also, the network included a prospective partner which was available and willing to enter into a new relationship.

This means, secondly, that the *time frame* for the separation agreed on by the partners had different importance to them. Sandvik seems to have gained very much from the one-year “transitional period” before it had to act with a new sales organization and find a new partner.

Thirdly, the *brand strategy* should be integrated in a post-dissolution perspective for industrial goods and services. Atlas Copco underestimated the brand value which Sandvik Rock Tools contributed to the alliance. It also underestimated the possibility to launch an alternative rock tool brand.

Finally, the question of *organic growth* vs. *growth through acquisitions* has to be considered. The speed and timing of growth through acquisition/reduction of capacity turned out to have a major effect on company profit in situations with rapid global market changes.

Managerial decision making and skills differed during the four post-dissolution periods. Alajoutsijärvi, Möller and Tähtinen (2000) call for “beautiful exits” in which the ending of relationships is managed in a manner that credits the firms’ future endeavors. Since the manner in which Atlas Copco ended the alliance generated bad-will for the firm such a beautiful exit was not achieved. This might explain why Atlas Copco did not manage the trials of the oncoming recession as well as Sandvik did.

The consequence for Sandvik can be assessed indirectly by noting that the trial period with its new partner Tamrock was relatively short before it led to acquisition. The model by Håkansson and Johanson (1992) stresses the role of actors in a relation, and the managerial situation proves crucial also for a post-dissolution model: it seems that managers at Atlas Copco were blamed for the break-up decision made by Sandvik and that Atlas Copco had a turbulent managerial situation just as the long recession became a reality.

How an alliance is ended is assumed to affect the future strategies of the previous partners in terms of the impact of the ‘relationship energy’ (Havila & Wilkinson, 2002) of a terminated alliance on strategic relationship management. This is an area of strategic alliance management that is in need of further research (Chou, 2011; Havila & Tähtinen, 2011, Öberg, 2012). The description of the post-dissolution period after the alliance between Atlas Copco

and Sandvik indicates that the future endeavors of the firms can be interpreted at least partially against the background of the previous alliance.

We will never know what might have happened if the alliance had been patched together in 1988 and how that might have benefited stockholders and managers. The break-up seems to have gained customers, but also revitalized this sector at Sandvik and caused Atlas Copco to focus more on other business areas. A resource-driven organization in a stable managerial environment proved more successful through a turbulent business cycle, while an aggressive acquisition strategy did not. But the story does not end after these twenty-five years, and further research on the strategic development in post-dissolution periods may reveal more about the convergence and divergence of strategic actions after the alliance termination. The difference between a bitter divorce and a beautiful exit matters.

REFERENCES

- Afuah, A. (2000). How much do your co-opetitors' capabilities matter in the face of technological change? *Strategic Management Journal*, 21 (3), 387-404.
- Alajoutsijärvi, K., Möller, K., & Tähtinen, J. (2000). Beautiful exit: How to leave your business partner. *European Journal of Marketing*, 34 (11-12), 1270-1290.
- Andrews, Kenneth Richmond (1971). *The concept of corporate strategy*. Dow Jones-Irwin.
- Ansoff, H. Igor (1965). *Corporate strategy: An analytic approach to business policy for growth and expansion*. New York: McGraw Hill.
- Ariño, A., & J. de la Torre (1998). Learning from failure: Towards an evolutionary model of collaborative ventures. *Organization Science*, 9, 3, pp. 306-325.
- Baldwin, C. Y., & Von Hippel, E. (2009). *Modeling a paradigm shift: From producer innovation to user and open collaborative innovation*. Harvard Business School.
- Barney, Jay (1996). *Gaining and sustaining competitive advantage*. Addison-Wesley.
- Bleeke, Joel & David Ernst (1995). Is your strategic alliance really a sale? *Harvard Business Review*, January-February, pp. 97-105.
- Boersma, Margreet F., Peter J. Buckley & Pervez N. Ghauri (2003). Trust in international joint venture relationships. *Journal of Business Research*, 56, pp. 1031-1042.
- Bonoma, Thomas V. (1985). Case research in marketing: Opportunities, problems, and a process. *Journal of Marketing Research*, 22, pp. 199-208.
- Boyd, Brian K. (1991). Strategic planning and financial performance: A meta-analytic review. *Journal of Management Studies*, 28, 4, pages 353–374.
- Burt, Ronald S. (1980). Models of network structure. *Annual Review of Sociology*, 6, pp. 79-141.
- Chesbrough, H. (2006). Open innovation: A new paradigm for understanding industrial innovation. *Open innovation: researching a new paradigm*, 1-12.
- Chetty, Sylvie K. & Heather I.M. Wilson (2003). Collaborating with competitors to acquire resources. *International Business Review*, 12, 1, pp. 61-81.
- Chou, H. (2011). An exploration of relationship ending: Some strategic implications from the optical recording media industry. *27th IMP Congress*, Strathclyde University, Glasgow.
- Christensen, C. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston: Harvard Business School Press.
- Cyert, Richard M. & James G. March (1963). *A behavioural theory of the firm*. Englewood Cliffs: Prentice Hall.
- Dwyer, F., Shurr, P. & Oh, S. (1987). "Developing buyer-seller relationships". *Journal of Marketing*, 51(2), 11-27.
- Eisenhardt, Kathleen M. & Claudia Bird Schoonhoven (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *Organization Science*, 7, 2, pp. 136-150.
- Fagerberg, J. (2004) Innovation: A guide to the literature. In D. Fagerberg, D. Mowery, R. Nelson (eds.) *The Oxford Handbook of Innovation*, Oxford: Oxford University press.

- Faulkner, David (1995). *International strategic alliances*. Berkshire: McGraw-Hill.
- Fey, C.F. (1995). Success stories for Russian-Foreign joint ventures. *Business Horizons*, 37, 6, pp. 49-54.
- Ford, D. (1980). The development of buyer-seller relationships in industrial markets. *European journal of marketing*, 14(5/6), 339-353.
- Forsgren, Mats & Ulf Olsson (1992). Power balancing in an international business network. In Mats Forsgren & Jan Johanson, *Managing networks in international business*, Gordon and Breach.
- Franke, N. & Shah, S. (2003). How communities support innovative activities: An exploration of assistance and sharing among end-users. *Research Policy*, 32(1): 157-178.
- Franke, N. & von Hippel, E. (2003). Satisfying heterogeneous user needs via innovation toolkits: The case of Apache security software. *Research Policy*, 32(7): 1199-1215.
- Ganesan, Sankar (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58, April, pp. 1-19.
- Giller, C. & Matear, S. (2001), The termination of interfirm relationships. *Journal of Business and Industrial Marketing*, 16(2), 94-112.
- Good, D. & Evans, K. (2001), Relationship unrest – A strategic perspective for business-to-business marketers. *European Journal of Marketing*, 35(5), 549-65.
- Granovetter, Mark (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91, 3, pp. 481-510.
- Gronhaug, K., Henjesand, I. & Koveland, A. (1998). Fading relationships in business markets: an exploratory study, *Proceedings of the European Marketing Academy Conference*, 1, 589-611.
- Gulati, R., Nohria, N. & Zaheer, A. (2000). Strategic networks. *Strategic Management*
- Håkansson, H. & Waluszewski, A. (Eds.). (2007). *Knowledge and Innovation in Business and Industry, The importance of using others*. London, New York: Routledge.
- Håkansson, Håkan & Jan Johanson (1992). A model of industrial networks. In Björn Axelsson & Geoff Easton (eds.), *Industrial networks. A new view of reality*. London: Routledge.
- Hallén, L. & Johanson, M. (2004), Sudden death: dissolution of relationships in the Russian transition economy. *Journal of Marketing Management*, 20(10). 941-57.
- Havila, V., & Tähtinen, J. (2011). The state of empirical business relationship ending research. *27th IMP Congress*, Strathclyde University, Glasgow.
- Havila, V., & Wilkinson, I. (2002). The principle of the conservation of business relationship energy: or many kinds of new beginnings. *Industrial Marketing Management*, 31(3), 191-203.
- Hennart, J-F. (1988). A transaction cost theory of equity joint ventures. *Strategic Management Journal*, 9, pp. 361-374.
- Herstatt, C. & von Hippel, E. (1992). From experience: Developing new product concepts via the lead user method: A case study in a "low tech" field. *Journal of Product Innovation Management*, 9(3): 213-222.
- von Hippel, E. (1976). The dominant role of users in the scientific instrument innovation process, *Research Policy*, 5. 212-239.

- von Hippel, E. (1977). Transferring process equipment innovations from user-innovators to equipment manufacturing firms. *R&D Management*, 8(1), 13-22.
- Holmlund, M., & Hobbs, P. (2009). Seller-initiated relationship ending: An empirical study of professional business-to-business services. *Managing Service Quality*, 19(3), 266-285.
- Hu, Ying & Tor Korneliusson (1997). The effects of personal ties and reciprocity on the performance of small firms in horizontal strategic alliances. *Scandinavian Journal of Management*, 13, 2, pp. 159-173.
- Hyder, Akmal S. & Eriksson, Lars Torsten (2005). Success is not enough: The spectacular rise and fall of a strategic alliance between two multinationals. *Industrial Marketing Management*, 34, 8, pp. 783-796.
- Jarillo, J. (1988). On strategic networks. *Strategic Management Journal*, 9 (1), 31-41.
- Jennings, Daniel F., Artz Kendall, Murray Gillin & Christodouloy Christodoulos (1999). Determinants of trust in global strategic alliances and the Australian biomedical industry. *Competitiveness Review*, 10, 1, pp. 25-44.
- Johanson & Finn Wiedersheim-Paul (1975). The internationalization of the firm – Four Swedish cases. *The Journal of Management Studies*, 12, pp. 305-322.
- Johnston, Wesley J., Mark P. Leach & Annie H. Liu (1999). Theory testing using case studies in business-to-business research. *Industrial Marketing Management*, 28, pp. 201-213.
- Klein, Saul & Jehiel Zif (1994). Global versus local strategic alliances. *Journal of Global Marketing*, 8, pp. 51-70.
- Kothandaraman, P. & K. Wilson (2001). The future of competition – Value creating networks. *Industrial Marketing Management*, 30, pp. 379-389.
- Lambe, C. Jay, Robert E. Spekman & Shelby D. Hunt (2002). Alliance competence, resources, and alliance success: Conceptualization, measurement, and initial test. *Journal of the Academy of Marketing Science*, 30, 2, pp. 141-158.
- Lavie, D., & Singh, H. (2012). The evolution of alliance portfolios: The case of Unisys. *Industrial and Corporate Change*, 21(3), 763-809.
- Lorange, Peter & Johan Roos (1991). Why some strategic alliances succeed and others fail. *Journal of Business Strategy*, January/February, pp. 25-30.
- Lusch, R., & Vargo, S. (2006). Service-dominant logic: Reactions, reflections and refinements. *Marketing theory*, 6(3), 281-288.
- Medcof, John W. (1997). Why too many alliances end in divorce. *Long Range Planning*, 30, 5, pp. 718-732.
- Mintzberg, Henry & Alexandra McHugh (1985). Strategy formation in an adhocracy. *Administrative Science Quarterly*, 30, pp. 160-197.
- Mintzberg, Henry & Joseph Lampel (1999). Reflecting on the strategy process. *Sloan Management Review*, 40, 3, pp. 21-30.
- Mintzberg, Henry (1978). Patterns in strategy formation. *Management Science*, 24, pp. 934-948.
- Mohr, Jakki & Robert Spekman (1994). Characteristics of partnership success: Partnership attributes, communication behavior and conflict resolution techniques. *Strategic Management Journal*, 15, 2, pp. 135-152.
- Morgan, R. & Hunt, S. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58 (3), 20-38.

- Moriarty, R. & Kosnik, T. (1989). High-tech marketing: Concepts, continuity, and change. *Sloan Management Review*, 30 (4), 7-17.
- Morrison, P., Roberts J. & von Hippel, E. (2000). Determinants of user innovation and innovation sharing in a local market. *Management Science*, 46(12): 1513-1527.
- Mumford, Enid & Andrew M. Pettigrew (1975). *Implementing strategic decisions*. London and New York: Longman.
- Normann, R. & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review*, 71 (4), 65-77.
- North, Douglass C. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press.
- Noteboom, B. (1996). Trust, opportunism, and governance: A process and control model. *Organization Studies*, 17, pp. 985-1010.
- Öberg, C. (2012). Corporate divorce - Interconnecting disrupted and fading changes. *28th IMP Congress*, Università Cattolica, Rome.
- Parkhe, Arvind (1998). Understanding trust in international alliances. *Journal of World Business*, 33, 3, pp. 219-240.
- Peng, Mike W. & Oded Shenkar (2002). Joint venture dissolution as corporate divorce. *The Academy of Management Executive*, 16, 2, pp. 92-105.
- Perrien, J. & Ricard, L. (1995), Dissolution of a relationship – The salesforce perception. *Industrial Marketing Management*, 24(2), 317-27.
- Pfeiffer, T. (2010). A dynamic model of supplier switching. *European Journal of Operational Research*, 207, 697–710.
- Porter, Michael E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: The Free Press.
- Porter, Michael E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: The Free Press.
- Pressey, A. & Mathews, B. (2003), Jumped, pushed or forgotten? Approaches to dissolution. *Journal of Marketing Management*, 19(1-2), 131-55.
- Pressey, A. & Qiu, X. (2007). Buyer-supplier relationship dissolution: The Chinese context. *Journal of Business & Industrial Marketing*, 22(2), 107-117.
- Quinn, James Brian (1978). Strategic change: “Logical incrementalism”. *Sloan Management Review*, 20, 1, pp. 7-21.
- Rajagopalan, Nandini & Gretchen M. Spreitzer (1997). Toward a theory of strategic change: A multi-lens perspective and integrative framework. *Academy of Management Review*, 22, 1, pp. 48-79.
- Ring, Peter S. & Van de Ven, Andrew H. (1994). Developmental process of cooperative interorganizational relationships. *Academy of Management Review*, 19, 1, pp. 90-118.
- Ring, Peter S. (1996). Fragile and resilient trust and their roles in economic exchange. *Business and Society*, 35, pp. 148-175.

- Ritter, T. & Gemünden, H. (2003). Network competence: Its impact on innovation success and its antecedents. *Journal of Business Research*, 56 (9), 745-755.
- Serapio Jr., Manuel G. & Wayne F. Cascio (1996). End-games in international alliances. *Academy of Management Executive*, 10, 1, pp. 62-73.
- Slevin, D. & J. Covin (1997). Strategy formation patterns, performance, and the significance of context. *Journal of Management*, 23, 2, pp. 189-209.
- Sørensen, Henrik B. & Torger Reve (1998). Forming strategic alliances for asset development. *Scandinavian Journal of Management*, 14, 3, pp. 151-165.
- Spekman, Robert E. & Kirti Sawhney Celly (1995). Towards an understanding of the antecedents of strategic alliances. In Kristian Möller & Dave Wilson (eds.), *Business marketing: An interaction and network perspective*. Boston: Kluwer Academic Publishers, pp. 157-191.
- Spekman, Robert E., Lynn A. Isabella, Thomas C. MacAvoy & Theodor M. Forbes (1996). Creating strategic alliances which endure. *Long-Range Planning*, 29, 3, pp. 346-357.
- Tähtinen, J. & Halinen-Kaila, A. (1997). The death of business triads. The dissolution process of a net of companies. In Mazet, F., Salle, R. and Valla, J.-P. (Eds), *Interaction, relationships and networks. Proceedings of the 13th IMP Conference*, Lyon, France, 553-590.
- Tähtinen, J. & Havila, V. (2004). Enhancing research in exchange relationship dissolution. *Journal of Marketing Management*, 20(9-10), 919-926.
- Tähtinen, J., & Havila, V. (2013). Definitions of business relationships ending: A literature review. *The 29th annual IMP conference*, Georgia State University, Atlanta.
- Urban, G. & von Hippel, E. (1988). Lead user analyses for the development of new industrial products. *Management Science*, 34(5): 569-582.
- Vaaland, T.I. (2006). When conflict communication threatens the business relationship: Lessons from the "balder" story. *Journal of Business-to-Business Marketing*, 13(2), 3-27.
- Van de Ven, A. (1986) Central problems in the management of innovation. *Management Science*, 32(5): 590-607.
- Van de Ven, A., Polley, D., Garud, R. & Venkataraman, S. (1999) *The innovation journey*, New York: Oxford University Press.
- Varadarajan, P.Rajan. & Margaret H. Cunningham (1995). Strategic alliances. *Journal of the Academy of Marketing Science*, 23, 4, pp. 282-296.
- Wagner, S. & Friedl, G. (2007). Supplier switching decisions. *European Journal of Operational Research*, 183(2): 700–717.
- Wassmer, U. (2010). Alliance portfolios: a review and research agenda. *Journal of Management*, 36(1), 141-171.
- Yin, Robert (1989). *Case study research, design and methods*. Thousand Oaks, CA: Sage Publications.