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STRATEGIC DEVELOPMENT AFTER A BITTER DIVORCE

Post-alliance strategies in the mining and construction business at Sandvik and Atlas Copco

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Abstract

Strategic alliances represent long-term cooperation, but although many alliances fail, little has been said about companies' post-alliance development. In this study we analyze the development of Sandvik and Atlas Copco after the break-up of their longstanding alliance which was considered as the paragon of Swedish industrial alliances. Beginning in the 1940's both companies cooperated successfully for almost half a century in the international mining and construction market. Their strategic alliance was the global market leader. However, all ended abruptly in mistrust in 1988. Since then, the former alliance partners have been keen competitors.

Here we describe, compare and analyze the two companies' post-alliance development during the first twenty years after the break-up (1988-2008). After a turbulent beginning the companies experienced contrasting trends in the business area of the former strategic alliance. We divide the the post-alliance period into three phases: the defense and reconstruction period, the reorientation and renewal period, and the period of parallel strategies.

By 2008 the mining and construction business had not only become a dominant and equally large part for both companies but they had also regained their market share as leaders in the global market. Although the strategies to new strength diverged, after twenty years the former alliance partners ended up in rather equal positions.

Keywords: strategic alliance, dissolution, post-alliance strategy, resource management

INTRODUCTION

The more alliances businesses create, the more likely are complaints about alliance shortcomings and problems when alliances break up (Medcof 1997). Lambe, Spekman and Hunt (2002) found that about seven alliances in ten fail. International alliances face an especially high failure rate (Bleeke & Ernst 1995; Klein & Zif 1994). Thus, sooner or later most managers will find themselves in a post-alliance situation where they need insights to answer the question how to form a successful post-alliance strategy.

Here we analyze the twenty years from 1988/89 to 2008 of *post-alliance development* after one of the most bitter break-ups of company cooperation in Swedish industrial history – the period after the dissolution of the strategic alliance between the two multinational companies Atlas Copco and Sandvik. Their cooperation on the international mining and construction market[1] was a paragon for successful alliances and lasted for almost half a century (1947-1988/1989). Their divisions for rock drilling tools and machinery 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 a market recession during the following years.

Strategic alliances are the focus of many studies, as alliances have become a widely applied strategic option, but there is a lack both of longitudinal alliance studies and of studies analyzing post-alliance development. 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 that scholars in this area have neglected this central process perspective, and their early observation still holds true, 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 the management, which might explain why valid and reliable information is hard to retrieve.

No specific theory has been launched for development processes in post-alliance settings, despite the many alliance failures. Moreover, as outsourcing increases, stronger pressure can be expected on the supply agreements within alliances. This increases the risks of alliance break-ups. Thus, more detailed studies of the post-alliance period attain stronger relevance.

Researchers have devoted attention to Sandvik and Atlas Copco both regarding the period before the alliance between the two firms and regarding the alliance period. Johanson and Wiedersheim-Paul (1975) studied the pre-alliance and early alliance period. Forsgren and Johanson (1992) studied the changes in the actor structure when the alliance ended in 1988.

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[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 is used at present, while Sandvik uses Mining and Construction. Over the years also other labels have been used such as Rock Tools (Sandvik) and Mining and Construction Techniques (Atlas Copco).

Hyder and Eriksson (2005) added insights into the alliance and break-up processes as such. In this paper we focus on the post-alliance development during the following twenty years.

THE COLLAPSE OF A SUCCESSFUL ALLIANCE

A process of learning about the other alliance partner starts when a new alliance is formed. Time and effort is invested in the relation to demonstrate the seriousness of one's intention to the prospective partner. If both parties perceive their interest to be reasonably well met in terms of the resources exchanged within the alliance as it progresses, mutual trust develops within the relationship. Commitment to long-term cooperation is strengthened as the relationship enters a mature stage. Alliance maturation is the process when the roles of each party of the alliance are developed as well as mutual techniques for solving problems. Institutionalization of the alliance is achieved in course of time as the rules of conduct within the relationship are settled. This benefits cooperation within the alliance as it makes routines operate more smoothly.

However, faced with environmental dynamics the inflexibility of more or less unalterable routines may prevent the alliance from undertaking necessary adjustments and lead it into a phase of alliance decline. The outcome may either be dissolution or revitalization. Facing dissolution, organizations basically have three alternatives: going alone (Peng & Shenkar, 2002), 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 reinventing earlier ineffective institutionalized behaviour.

Sandvik and Atlas Copco were both established as industrial companies in Sweden in the middle of the 19th century; some of their operations were 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 the durability of the tools by 40 to 50 times. Atlas Copco had developed lighter machinery for rock drills. Together, their offerings had a superior competitive edge giving the companies a dominating position in the global market for years.

In 1988 Atlas Copco still stood for market contacts and the setting of prices in each market. Atlas Copco was responsible for product development and production of drilling machinery, and Sandvik was responsible for product development and production of drilling tools. The prices for Sandvik's tools were renegotiated every year. Sandvik knew the market prices, but 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 construction 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 (excluding oil drilling) 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 the world market. This company had its headquarters and main plant in the same region as Sandvik. In early 1988 Secoroc was offered 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[2] that Secoroc's owners were asking. Secoroc then turned to Atlas Copco, which quickly decided to buy the company. Sandvik's CEO instantly perceived Atlas Copco's acquisition of Secoroc as a threat and as a way to 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 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 beneficial 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 post-alliance strategy? 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 years (1988-2008) 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-alliance processes of these two companies we want to contribute to theories of company behavior in dynamic industrial networks.

[2] In 2013 the Swedish crown corresponds to 0.15 US dollars. Values in Swedish crowns in this paper are not adjusted for inflation.

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.

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. The phenomenon has also 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 & Korneliussen 1997; Sörensen & Reve, 1998; Chetty & Wilson, 2003), and *commitments 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 have 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". Wittman (2008) presents a theory-based model of alliance failure with focus on alliance lifecycle phases based on the assumption that managers already from the start imagine the alliance to fail. 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 focuses 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 focuses 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 dominated 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 will foster different strategic development.

Slevin and Covin (1997), for example, mean that the effects of a company's organization structure and environmental context has implications for the relationship between that 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, alliance (business) 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.

METHODOLOGY

Ring and Van de Ven (1994) pointed out in an overview that an alliance is a collaborative relationship requiring a focus on many issues and their interconnectedness. It is a complicated matter within a real-life context and the boundaries between the study objects and their context are not clearly evident nor easily quantified. The study cannot be performed outside its natural setting. Hence, we have applied the well proven case research approach formulated by Bonoma (1985), Yin (1989) and Johnston, Leach and Liu (1999).

For the post-alliance analysis new detailed primary and secondary data were collected for the period 1988-2008. 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 (1985-2008), 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 in the post-alliance operations over the years.

To find and interview both former and present managers and compare their experiences and information has proved crucial for the interpretation of data and triangulation for increased reliability The inherent time factor in the twenty years covered by the study proved beneficial in the search for and validation of information.

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

THE POST-ALLIANCE CONTEXT

In order to interpret the behavior of the involved companies after the alliance break up, it is necessary to grasp the company context during the twenty year period. A fundamental condition is that the companies operate in a field of business where the international business cycle has a strong impact on turnover and results. The decisions to break up the alliance were taken during the peak of a boom period. Little did the company managers expect the deep downturn that the business cycle took soon after the break-up of the alliance and which lasted 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 in general. Sweden entered the EU in 1994 after which a slow recovery took place but followed by a considerable downturn in 1998–2000. Market growth would gradually return 2002 and accelerate 2004–2008. A new, rapid downturn occurred at the end of that year which also marks the final year of the twenty years perspective in this study.

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 the beginning of the 1990's, new market opportunities emerged in Eastern Europe, Asia and South Africa. At end of the analyzed period more than half of the turnover was generated in these areas. Moreover, innovation within information and communication 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 found new application areas, and as the offerings changed from separate products to systems, 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 Furkawa, and the French companies Secoma and Montabert, especially in Europe, Africa and Asia.

POST-ALLIANCE MILESTONES 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. 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 proudly present record results for all its operations in the previous year. The company was at the height of a business cycle but – as mentioned – not knowing that 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 no one had expected or wanted the strategic alliance with Atlas Copco M&C to end. Sandvik had always made positive remarks in the 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 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. After-sales was emphasized. However, in all operating areas there was a trend towards increasing mechanization and more sophisticated, capital-intensive machinery. This imposed higher demands on the operational reliability and performance of tools. This means there was a movement to increasingly complex system machinery, capable of functioning 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 staff. On August 1st, 1989, a new sales organization (170 salesmen) was put into effect 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. Now the situation was quite different.

Secondly, as a 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 with consideration of 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. A new, growth strategy was launched.

Besides the acquisition of Tamrock, Sandvik M&C bought four other companies between 1989 and 1997 and formed four new joint ventures. After 1997 acquisitions accelerated and more new companies were added and alliances in specialized areas (niche-alliances) were set up. Between 1997 and 2000 seven new ventures were added, and after 2000 more than twenty new ventures were included. The main purpose of the acquisitions was to get better access to customers in America, Eastern Europe and Asia. However, the restructuring also implied that during periods of low growth plants were closed.

The generally weak business conditions during the 1990's 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 with 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 1990's.

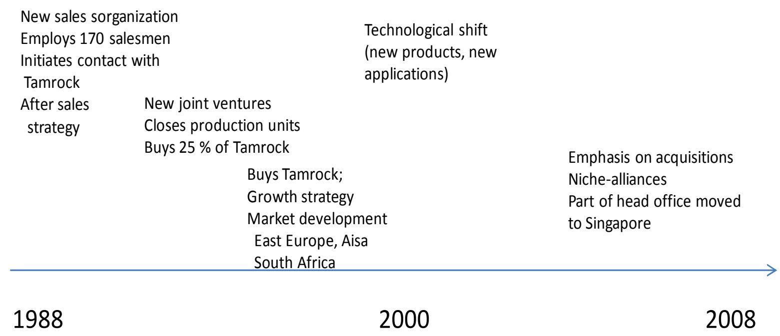
The managerial situation at Sandvik seems to have been stable during the period. The Sandvik Group kept the same CEO as during the end of the strategic alliance. A shift took place in 1997. The management of Sandvik M&C changed only gradually over the period.

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 introduced almost every year. A significant technology shift was undertaken in the mid-1990's, when compressed air was replaced by hydraulic fluid power for drilling machinery. This marked a definite shift from the dominant 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.

In 2008 Sandvik Mining and Construction reported a record profit and had become the company's largest sector with a share of 42 % of Sandvik's turnover.

The milestones in the development that followed for M&C in 1988-2008 are summarized in Figure 1.

Figure 1. Milestones in Sandvik's post-alliance development



POST-ALLIANCE MILESTONES AT ATLAS COPCO MINING AND CONSTRUCTION

As was the case for Sandvik, also Atlas Copco 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 supports the conclusion that Sandvik's reaction to the acquisition to Secoroc was not expected. In 1991 Atlas Copco changed its CEO.

The managerial team for M&C formed a strategy based on the idea that Atlas Copco had been "the owner of the market relation" and for many years stood for the "important investment products" in the customer offerings. Now Atlas Copco 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 they 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 the EU.

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 grew more technically advanced, and product introduction became a key yearly event.

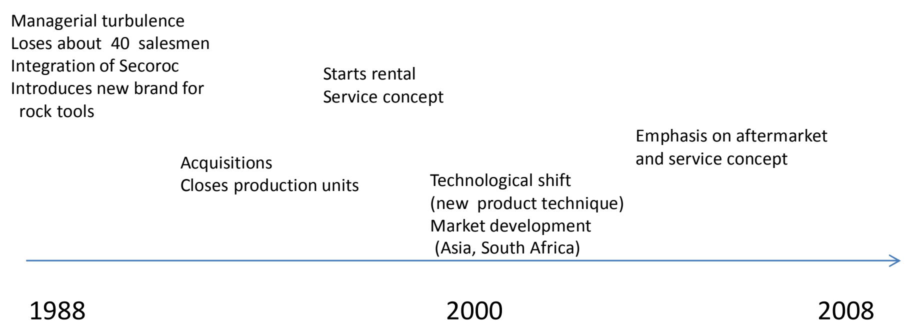
Despite the market imbalance, Atlas Copco continued to buy companies in the market, but the slow market and keen competition also forced the company to close over twenty plants during the period. Costs remained high for restructuring production within the area for most of the period. In the mid-1990's 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 developing into being Atlas Copco's most crucial market region. Atlas Copco emphasized service and the after-sale market as key elements in the offering. It also introduced interactive computer-based training tools for customers in order to make introduction of the continuous flow of new products more efficient.

The late 1990's 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 post-alliance development



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 years after the break up, both companies had made a very strong comeback in the global mining and construction sector. M&C was about 42 % of the total turnover in both companies. The business area was deemed to be well consolidated again.

The empirical data range over the first twenty years after the break-up of this alliance between two multinational companies in a mature market. Instead of continuing a rather comfortable and world-leading alliance, Sandvik and Atlas Copco had to continue on their own, becoming antagonists in 1988. The mistrust harboured by the new management at Atlas Copco's division for mining and construction was the reason for the break up and 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 in the annual reports as its number one competitor, and twenty years after the break-up of the alliance, Atlas Copco as a group announced record results. However, the mining and construction sector had lost weight in the company structure: from 33 % in 1988 to 18 % in 2003, but, 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 in order 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 would 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 on 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 2008 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 as well as 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 developed 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 was able to continue its after sales marketing.

- 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. This marks a major change in Sandvik M&C as a large machine organization established in another country became part of the company.

- It took advantage of emerging markets and advanced systems solutions, and focused on *organic growth* during the turbulent market restructuring period plagued by recession.

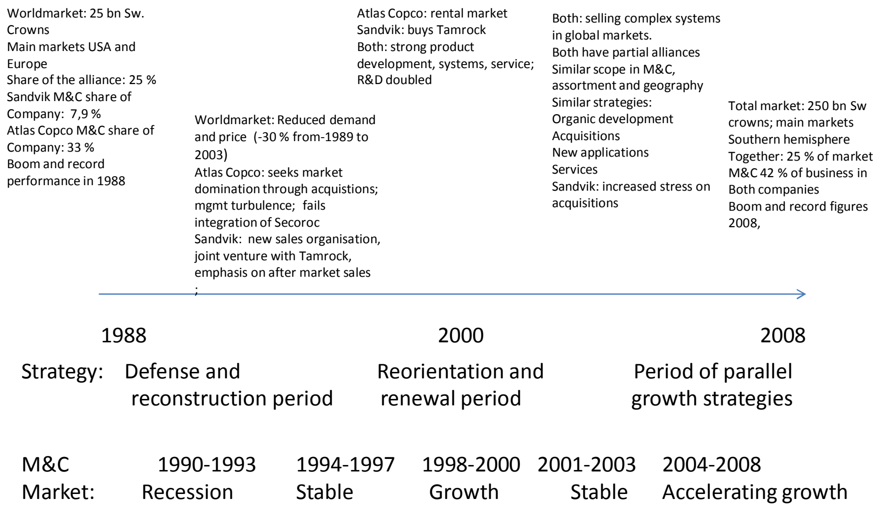
- It avoided making major changes in the *management* team and organization for the mining and construction area as a direct consequence of the break-up decision. Sandvik's weak spot might have been the *time factor*, but as Atlas Copco had agreed on a one-year transitional period, the company management 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. Post-allianc development phases för Mining and Construction at Sandvik and Atlas Copco

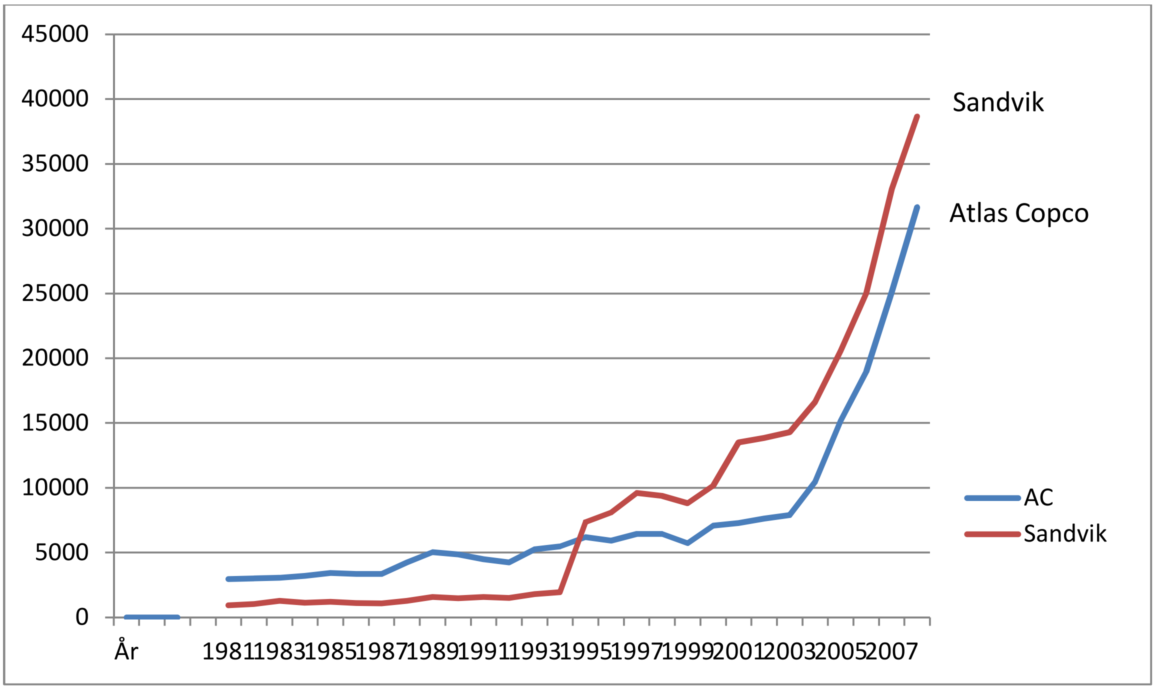


Both Sandvik and Atlas Copco had a strong position in Europe and in North America. They also positioned themselves to grow in Asia and Eastern Europe with ambitions for South America and Africa if the conditions would improve in these regions. It seems likely from the result so far, that their strategic 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 post-alliance strategy seems to have been more based on long-term intentions, whereas Sandvik’s was more contextually adaptive. The content of Atlas Copco’s strategy was, however, not in line with the short run market development. 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.

Figure 4. Turnover development for the Mining and Construction business areas at Atlas Copco and Sandvik 1981-2008 (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

Theories on strategic alliances can describe the reason why the alliance between Sandvik and Atlas Copco was once created, i.e., to add complementary strength to the actors, and can also explain the reason why it ended, i.e., increasing mistrust followed by an action that was considered more or less hostile, but they do not contribute insight into the market conditions pertinent to the collapse of the alliance, in particular the price level in the market that had been reduced with about 30 %. For example, Mohr and Spekman's (1994) model for network cooperation seems to explain the failure of the alliance as they point out the importance of commitment and trust, communication behaviour, and conflict resolution techniques – none of which seems to have been dealt with satisfactorily, despite the long alliance. However, the model lacks some of the concepts relevant in analyzing the post-alliance period. A post-strategy analysis has to go beyond the individual companies and embrace the network and the market context.

The consequence for Sandvik can be assessed indirectly, by noting the fact that the trial period with its new partner, Tamrock, was relatively short, before a successive acquisition took place. The model by Håkansson and Johanson (1992) stresses the actors' role in a relation, and the managerial situation proved very crucial also for a post-alliance 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. Also, Kothandaraman and Wilson's (2001) model for value-creating networks offer contributions to a post-alliance model in emphasizing the importance of superior customer value and core capabilities. Sandvik's strong R&D for leadership in hard metal technology proved more stable for growth than Atlas Copco's attempt to gain market dominance through extensive acquisitions.

However, there are factors missing in the models used for the alliance period, which should be considered for a post-alliance model. Wittman's (2008) assumption that managers expect an alliance failure sooner or later, does not seem to hold in this case. On the contrary, the end of the alliance between Sandvik and Atlas Copco was a surprise and formed by "a mistake". From the course of events during two decades, we conclude the following to be important to consider for a post-alliance theory:

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 that was available and willing to enter a new relationship.

This means, secondly, that the *time frame* the partners agreed on for the separation had different importance to the partners. In this case, 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-alliance perspective for industrial goods and services.

Finally, the question of *organic growth* vs. *growth through acquisitions* has to be considered. Using Mintzberg and McHugh's (1985) terms, that which for one partner at one time is a deliberate strategy, might for another partner or on another occasion be an emergent approach.

As illustrated in Figure 3 we identified three post-alliance periods which might be added to Quinn's (1980) and Mintzberg & Waters' (1985) view on strategy as process. The first period was marked *by organizational defense and reconstruction*, the second by *reorientation and renewals of markets and offerings,* and third was a period with *parallel growth strategies in competition*. How the companies 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.

What might have happened if the alliance had been patched together in 1988 cannot be known, and neither how that might have affected stockholders and managers. The break-up seems to have led to a gain of customers, but also revitalized the relevant sector at Sandvik but 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 years, and further research on the strategic development of post-alliances may reveal more about the convergence and divergence of strategic actions after the termination of a successful strategic alliance.

REFERENCES

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.

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.

Bonoma, Thomas V. (1985), Case research in marketing: Opportunities, problems, and a process. *Journal of Marketing Research*, 22, pp. 199-208.

Boersma, Margreet F., Peter J. Buckley & Pervez N. Ghauri (2003), Trust in international joint venture relationships. *Journal of Business Research,* 56, pp. 1031-1042.

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.

Chetty, Sylvie K. & Heather I.M. Wilson (2003), Collaborating with competitors to acquire resources. *International Business Review,* 12, 1, pp. 61-81.

Cyert, Richard M. & James G. March (1963), *A behavioural theory of the firm*. Englewood Cliffs: Prentice Hall.

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.

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.

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.

Ganesan, Sankar (1994), Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58, April, pp. 1-19.

Granovetter, Mark (1985), Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91, 3, pp. 481-510.

Håkansson, Håkan & Jan Johanson (1992), A model of of industrial networks. In Björn Axelsson & Geoff Easton (eds.), *Industrial networks. A new view of reality.* London: Routledge.

Hennart, J-F. (1988), A transaction cost theory of equity joint ventures. *Strategic Management Journal*, 9, pp. 361-374.

Hu, Ying & Tor Korneliussen (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.

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.

Lorange, Peter & Johan Roos (1991), Why some strategic alliances succeed and others fail. *Journal of Business Strategy*, January/February, pp. 25-30.

Medcof, John W. (1997), Why too many alliances end in divorce. *Long Range Planning,* 30, 5, pp. 718-732.

Mintzberg, Henry (1978), Patterns in strategy formation. *Management Science*, 24, pp. 934-948.

Mintzberg, Henry & Joseph Lampel (1999), Reflecting on the strategy process. *Sloan Management Review*, 40, 3, pp. 21-30.

Mintzberg, Henry & Alexandra McHugh (1985), Strategy formation in an adhocracy. *Administrative Science Quarterly*, 30, pp. 160-197.

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.

Mumford, Enid & Andrew M. Pettigrew (1975), *Implementing strategic decisions*. London and New York: Longman.

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.

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.

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.

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.

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.

Varadarajan, P.Rajan. & Margaret H. Cunningham (1995), Strategic alliances. *Journal of the Academy of Marketing Science*, 23, 4, pp. 282-296.

Wittmann, C. Michael (2008), Strategic alliances: What can we learn when they fail? *Journal of Business-to-Business Marketing,* 14:3, 1-19

Yin, Robert (1989), *Case study research, design and methods*, Beverly Hills: Sage.