
Driving Strategic Change at Saab AB: The Use of New Control Practices

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2.1 Introduction

There has long been a demand for research showing the significance of relationships between strategies and control for the competitive advantage of complex corporate groups (see for example Bhimani and Langfield-Smith 2007; Langfield-Smith 1997; Otley 1980). Moreover, a number of such studies have been conducted, but they have not adopted the holistic approach highlighted by Nilsson and Rapp (2005), where strategies and control are treated at the corporate, business and functional levels to obtain a true understanding of their importance. More specifically, the authors maintain that it is essential to establish strategic congruence (mutually coherent corporate, business and functional strategies) and integrated control (control systems with a flow of consistent information within and between the principal mechanisms of control) in order to be competitive.¹

The study in focus in this chapter has therefore applied the holistic approach propounded by Nilsson and Rapp (2005). More specifically, this chapter is devoted to the strategic change undergone by Saab AB,² the defence and security company, since the mid-1990s, and to the design and use of control in maintaining the forward momentum of change. The actions of the corporate group were taken in response to changes in the business environment since the 1990s. At that time Sweden's defence forces accounted for roughly half of Saab's sales. As there was little or

¹ See Chap. 1 for a thorough discussion regarding this.

² This chapter is not about Saab Automobile, the automobile manufacturer, which was formed in 1990 from collaboration between Saab-Scania AB, as it was called at that time, and General Motors (GM). These two corporations each owned a 50 % share in the company, but in 2000 Saab Automobile became wholly owned by GM. In 2010 Saab Automobile was purchased by Spyker Cars before going bankrupt at the end of 2011.

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no competition in this business, Saab had basically a monopoly in the areas of the Swedish market where they operated; they were the only company that developed and manufactured the products and systems concerned. Around the turn of the millennium, a realignment commenced, in which Saab intensified its focus on the export market. A few years into the 2000s, the corporation was considerably more exposed to competition than before. To adapt the business to the new competitive situation, there were substantial changes in, and internal matching of, strategies and control at the corporate, business and functional levels. During this period, Saab remained competitive and the company has even been termed chronically successful (see Herin 2006; cf. Elofsson 2011).

In light of this change process, we can engage in meaningful discussions on the relationship between strategies and control at the corporate, business and functional levels, and on what it means for a firm's competitive advantage. The purpose of this chapter is to provide further knowledge and understanding of the establishment of strategic congruence and integrated control over time in a corporate group's efforts to be competitive.³

The remainder of this chapter is structured as follows. The next section discusses what exposure to competition means for a company's competitive advantage. The section thereafter is devoted to the development of Saab's business, its strategies and control in the mid-1990s and to the changes occurring in the corporation's environment from 1995 on. The fourth section presents the principal internal changes in the corporation for the purpose of adapting the business to changed external conditions, and the development of the corporation's competitive advantage. The chapter concludes with a discussion about results.

2.2 Exposure to Competition and Its Importance to a Company's Competitive Advantage

Chandler's *Strategy and Structure*, first published in 1962, provides background on the development of US firms and industry from the mid-nineteenth to the mid-twentieth centuries. The starting point for the discussion is the importance of the business environment for strategic orientation and internal structure. Chandler summarizes as follows:

The market, the nature of their resources, and their entrepreneurial talents have, with relatively few exceptions, had far more effect on the history of large industrial firms in the United States than have antitrust laws, taxation, labor and welfare legislation, and comparable evidences of public policy. Possibly tax regulations have had more of an impact on the strategy of expansion since World War II, but their influence has not appreciably altered broad trends in the structure and strategy of great enterprise. On the other hand, government action such as defense or countercyclical spending that directly affected the market by increasing the national income or by making government itself a large customer has had a significant effect in the

³The empirical data, analysis and conclusions in focus in the chapter were presented in their entirety in the doctoral thesis by Nilsson (2010).

growth of the large enterprise. The changing munitions market was of far more importance, for example, to the history of the du Pont Company than any antitrust action. Antitrust has had probably the greatest impact on corporate structure and strategy in those relatively rare cases where it transformed a monopoly into an oligopoly.

(Chandler 1984, p. 384)

A number of different phenomena in the business environment have thus affected internal strategies and structures and thus competitive advantage as well. Chandler's conclusion that internal structures follow changes in strategy, which in turn follow from changes in the environment, is based on organizations exposed to competition. Firms in a monopoly position did not act in the same way. For example, the work on the internal structure of a large monopoly firm is described as follows:

The International Nickel Company, which became the International Nickel Company of Canada, Ltd. in 1916, began as a combination in 1902. Although its senior executives had worked out an embryonic functional structure by World War I, they did not give serious attention to organization until the postwar depression brought a sharp decline in the demand for nickel. [...] In 1928 International Nickel's merger with the Mond Nickel Company, Ltd., gave the new combination a virtual monopoly of the industry. Administrative consolidation of these two enterprises came slowly, with the first steps being taken in 1936 and with further centralization in the 1950s.

(Chandler 1984, p. 330)

The limited interest in internal changes is based primarily on the company's monopoly position, which assured continuing sales with satisfactory profitability despite considerable inefficiency. The internal structure of the firms exposed to competition, by contrast, was necessary and thus more comprehensive as well.

Ten years after Chandler's book, Khandwalla (1972) published a study showing results corresponding to Chandler's. Khandwalla underscores the importance of competitive pressure for the use of management and production control. From information from 92 US industrial firms, he concludes as follows:

We have seen that there is a positive association between competition and the use of sophisticated management controls.

(Khandwalla 1972, p. 282)

Above all, he shows that product-related competition affects the importance of management and production control at companies. The more competition there is, the more control is used for implementing strategies. Porter (1985) argues along similar lines, but in discussing business strategies. In his view companies that have been "stuck in the middle" can still be successful, but on condition that they either have a monopoly or that their principal competitors are also "stuck in the middle".

Such a market-based approach to competitive strength, however, is not the only explanation. Institutional forces of both internal (Scapens 2006) and external (Meyer and Rowan 1977) origin are important. This means, for example, that internal factors taken for granted, such as behaviours, customer expectations of organizational actions, national and international politics and economics, as well as laws and regulations, have an effect. Chandler highlights the importance of the antitrust laws for changes in strategy and structure at monopoly firms, as well as the significance of more general legislation and the actions of the government as a customer.

All factors considered, it can be noted that firms may be competitive even though they are relatively inefficient; in a monopoly position they do not need to adjust their strategy and structure to the same extent as a company exposed to competition. However, exposure to competition is not the only factor of importance for being competitive. Institutional forces also have an influence, and they can rapidly affect a firm's competitive advantage.

2.3 Saab's Business and the Changed Environment

Svenska Aeroplan Aktiebolaget (Saab), a company in the defence and security sector, was formed in 1937 to meet the need for a domestic Swedish military aviation industry arising from the establishment of the Swedish Air Force in the mid-1920s. As early as 1941, the first aircraft, a B17, was delivered to the Air Force. Subsequently, an additional six combat aircraft models, the latest being the JAS 39 Gripen, were developed and manufactured. Although the original intention was to produce military aircraft, a number of other commercial arrangements have arisen from this business. Examples included civilian aircraft, missiles, training equipment and microwave and antenna equipment for space vehicles.

In 2000 Saab made the strategically significant move of acquiring Celsius, a competitor, and the new corporate group became the dominant defence firm in Scandinavia. The merger resulted in a more extensive product portfolio.

The broad-based product range is clearly focused on future defense needs and a safer society.

(Saab 2004, part 1, p. 31)

So far in the twenty-first century, Saab's business has been in the following 11 overall areas: aviation, weapons systems, unmanned systems, simulation and training, command and control, communication, signature management, aerospace, sensor systems, electronic warfare systems, and support systems. At the end of 2010, the corporation had 12,536 (8,426)⁴ employees in five (four) continents. Total sales were MSEK 24,434 (7,925), with an export share of 62 % (60).⁵ Total orders on hand amounted to MSEK 41,459 (20,509) million, with an export share of 69 %⁶ (22) (Saab 1995, 2010).

Until the turn of the year 2009/2010, the business units of the corporation were organized into three segments (see Fig. 2.1).⁷ In the Aeronautics segment, much of

⁴ In this paragraph figures in parentheses refer to corresponding data at the end of 1995.

⁵ The export share of 60 % in 1995 was the highest of any particular year in the 1990s. The average export share for the years 1994–1999 was 49 %, with the yearly figures as follows: 1994, 49 %; 1995, 60 %; 1996, 55 %; 1997, 51 %; 1998, 41 % and 1999, 38 % (Saab 1995, 1996, 1997, 1998, 1999)

⁶ The export share of 69 % is for 2009. Since 2010 the corporation has reported only the export share of total revenue.

⁷ At the turn of the year 2009/2010, the business units were assorted into five business areas. But since no empirical evidence has been collected for the period thereafter, the corporation's development after that point is not considered.

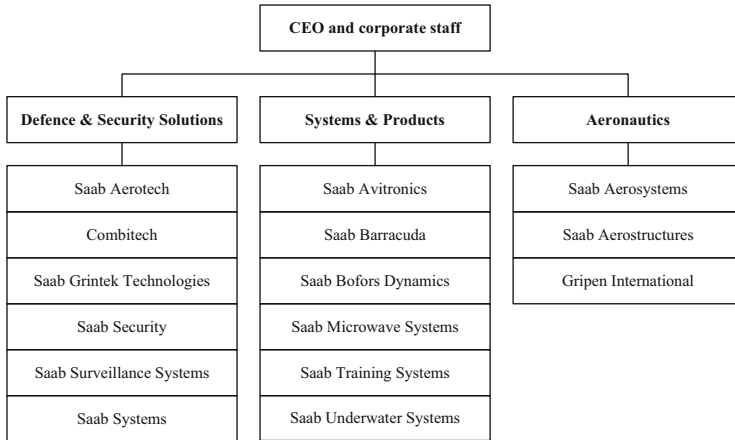


Fig. 2.1 Saab's segments and business units at the end of 2009

the business was related to the JAS 39 Gripen. In 2007–2008 high priority in resource allocation was given to the development of a flying Gripen demonstrator, as it would be the foundation for the next Gripen generation. The segment also included the development and production of parts for Airbus and Boeing, as well as the development of Unmanned Aerial Vehicles (UAV). Both areas contribute to the continued development of Gripen.

The Defence & Security Solutions segment accounted for most of the corporation's growth, primarily in domestic security, command and control systems and defence- and security-related services. Many systems delivered in this segment are of such a nature that customers wish to collaborate solely with suppliers in their own country. Examples might include high-level command and control systems at the core of the customer's business. For security reasons, they do not want to admit foreign entities into the business. It is therefore important to create several home markets⁸ – this was an important reason for the acquisitions made by Saab during the period 2004–2006. The principal companies concerned were Grintron (2003) and Grintek (2004) in South Africa, Elesco in Finland (2004) and Maersk Data Defence in Denmark (2006). Clearly the largest acquisition after Celsius, however, in terms of size as well as importance, was Ericsson Microwave Systems (2006). Among other things, Microwave Systems had already supplied radar previously to Gripen and fire-control radar to Saab Bofors Dynamics. The importance of this arrangement was expressed as:

[...] an acquisition that strengthens our position in several strategically critical areas and adds world-leading competence and products in the field of sensors.

(Saab 2006, part 1, p. 4)

⁸ 'By a home market is meant a country where Saab has operations that meet at least three of the following four criteria: (1) sales consistently above a certain level in the country, (2) local value added, (3) at least two of the segments have customers in the country and (4) Sweden has good political relations with the country' (Nilsson 2010, p. 82, translated).

The Systems & Products segment consisted largely of the corporation's niche products like camouflage net, supporting weaponry and remotely operated underwater vehicles. Several of the niche products were and still are world-market leaders. Furthermore, they fulfil an important function in relation to the other two segments, either as an important complement in the total offering or as a door-opener for bigger transactions at a higher level in the system.

When the business-unit and functional levels are discussed in this chapter, three business units are in focus: Saab Aerosystems (Aerosystems), Saab Bofors Dynamics (SBD) and Saab Systems (Systems). For a long time Aerosystems has concentrated almost exclusively on the development, production and maintenance of combat aircrafts. The most recent of these is the JAS 39 Gripen, which in 2006 accounted for 85–90 % of the business unit's sales. Since 2000 operations have been gradually broadened and by the end of 2009 it also included UAV's and the aftermarket for the company's own aeronautical systems. SBD was formed in 2000 from the merger of business units from Saab and Celsius. Since then the business has concentrated on development and production of weapons systems for sea, land and air. Saab Systems was also created in 2000 by a merger of businesses from Saab and Celsius. This operation has related primarily to military command and control systems as well as sensors.⁹ In 2006–2008, moreover, a substantial business was built up in domestic security, but it was later moved to a newly created business unit focused specifically on domestic security.

The above description of the overall development of Saab will be followed by a discussion aimed at laying the foundation for a subsequent report on the work of strategic change at Saab. First, there will be a presentation of Saab's environment, strategies and control systems in the mid-1990s. Thereafter, the principal changes in Saab's environment from 1995 on will be discussed. Together these two sections will form the basis for the presentation of a number of evidence chains. These will describe what changes in the business environment have led to in the way of internal changes in strategies and control systems at Saab, as well as how the company's competitive advantage has been affected (see Sect. 2.4 Changes in Saab's strategies and control).

2.3.1 Saab's Environment, Strategies and Control Systems in the Mid-1990s

In the mid-1990s Saab could be regarded as a conglomerate. The corporation consisted of five business units that were evaluated primarily on the basis of two key numbers, one for profitability and one for growth. As two respondents put it:

Saab was a small conglomerate with very different businesses; actually, we could have abolished corporate management.

(Respondent, corporate management at the time)

⁹ 'There are several different kinds of sensors, but all of them have the task to gather information, on light, sound or motion, for example, to convert it to a suitable format and in certain cases also to distribute the information to other subsystems' (Nilsson 2010, p. 207, translated).

We have a history as an extremely decentralized company. Bengt Halse, our previous CEO, actually had no interest in getting involved in the operations of the various business units, as long as these would deliver ten percent on the bottom line.

(Respondent, corporate level)

The principal reason for the focus on the individual units was the view of senior management on synergies. One senior executive noted the following:

I am definitely of the opinion that the gains from coordination are less than the costs.

(Respondent, corporate management at the time)

This meant that corporate management looked elsewhere and sought collaboration with other corporate groups, one of which was BAE Systems, in order to sell JAS 39 Gripen on the export market. This was the case even where the different business units of the corporation had the same customers and the same core competence. The core competence had to do with systems integration, that is, the ability to get different parts, physical and electronic, to interact in a whole system. The following is an excerpt from Saab's annual report for 1995 (p. 4, translated):

A common feature of the Group's different operations is that they work together with sophisticated customers, often in projects, and with technologically advanced products and systems. There is thus a high degree of relatedness, technically and in many cases between businesses, in the different parts of the group.

However, given the view of senior management in regard to synergies, the synergy potential was not realized. With this kind of corporate strategy, discussions on strategy at the corporate level did not include setting priorities for different endeavours within the corporation. Instead, these matters were handled by the respective business units, which had resources of their own and managed their own investments. Work with strategy was thus largely decentralized to the business units.

The control mechanisms primarily used at the corporate level were a budget and a financial business plan.¹⁰ There was virtually no strategic business plan,¹¹ and the result of the strategic planning was of such a nature that it was classified as secret and thus not communicated within the corporation. Both the budget and the financial business plan, moreover, were largely aggregates of business-unit planning, and without any direct links to each other. Specifically, this meant that there was a discrepancy between long-term and short-term monetary control. The reason for this was the lack of a need for such coordination. As for Sweden's

¹⁰ The term "control mechanism" refers to the principal general components of a control system. Each one includes processes of planning and follow-up for affecting behaviour in the organization. Aside from the budget and financial business plan, the Balanced Scorecard and the strategic business plan are examples of control mechanisms.

¹¹ The three mentioned control mechanisms can be described as follows: 'The strategic business plan includes a description of the firm's strategic direction for coming years, whereas the financial business plan consists of annual income statements and balance sheets for the next 5 years. The budget includes an income statement, as well as selected key performance indicators, for the coming year of operations' (Nilsson 2010, p. 98, translated).

interests, a high degree of self-sufficiency in defence materiel has been of central importance, and the Swedish government has paid Swedish suppliers for development and production of advanced national defence systems. This has led to a close partnership between Saab and the Swedish government, which in turn has affected their financial relationship. For a long time a cost-plus model was used, where Saab was paid for the work it did plus an agreed margin. This meant that Saab profited from increased costs, and that there was no need for internal coordination to improve efficiency in resource allocation; they earned money in any case. To increase total earnings further, Saab tried to export products developed for the Swedish market.

During the 1990s each business unit was evaluated on the basis of profitability and growth. The targeted levels were individual and were set in a dialogue between the corporate CEO and the business-unit CEO. The principal purpose of the monetary control was to see that business units optimized their own operations; for this reason, there was a focus on individual projects within the business units.

2.3.2 Radical Change in Saab's Environment (from 1995 on)

In the global defence industry there is basically one customer in each country: the national defence or military forces. Each customer, moreover, has a procurement organization that is the direct counterpart of suppliers, in Sweden's case the Swedish Defence Materiel Administration (FMV). The global industry is heavily regulated by a set of national laws governing the export of defence-related products. Since many transactions are decided at the highest political level, they are political by nature. Suppliers are expected to repay the customer through investments in the purchasing country of at least the same magnitude as the customer's investment. Furthermore, the number of companies operating in the industry is limited, and the competitors are quite familiar with each other. Life cycles in the industry are long, often 30–50 years, and the industry is not very prone to cyclical fluctuations.

Until the mid-1990s, Saab's monopoly position on the Swedish market meant that the corporation could operate under secure conditions; they could count on orders from the Swedish government that would also be fully financed. Subsequently three changes drastically altered business conditions for the corporation's operations. These changes were the end of the Cold War, reduced defence budgets throughout the world and the terrorist attack in the US in 2001.

With the end of the Cold War, the need for defence materiel throughout the world gradually diminished. Together with technological development that created opportunities for more complex solutions, this necessitated reduction in the number of suppliers in the industry. After the ensuing consolidation, four leading corporate groups emerged on the US market by the mid-1990s. In Europe the situation was similar around the turn of the millennium.

In Sweden the end of the Cold War led to a reorientation of the country's defence strategy beginning at about the turn of the millennium. As the need for defence against invasion was not considered as great as before, there was subsequently a

gradual shift toward a smaller, network-based defence.¹² During 2000–2007 the total defence budget, including defence materiel, was thus reduced by 20 %. The new materiel procurement strategy in 2007 was a contributing cause of even greater reductions in the defence budget than before. With the new strategy, the first step was to purchase systems that were already fully developed, whether they came from Swedish or international suppliers. In many other countries there is no similar policy; there the domestic defence industry is still protected by excluding foreign suppliers from the procurement process. For Saab this has meant increasing exposure to competition on the Swedish market.

Although many countries have cut their defence budgets, defence-related costs on a global level have been rising since the mid-1990s. This trend is explainable largely by the enormous investment of the US in building up the Department of Homeland Security in response to the terrorist attack in New York on September 11, 2001. This and subsequent terror strikes have contributed to asymmetric threat assessments throughout the world, as it is no longer so clear who constitutes a threat and in what way. As a result, it is important to protect not just borders, but also infrastructural flows in society, such as flows of people, money and goods, and to monitor security-sensitive operations such as prisons and nuclear power plants. For this purpose, comprehensive investment in better and more efficient flows of information is a necessity. As an example, the RAKEL information system (Radiocommunications for effective command), which has recently been implemented in Sweden and enables communication between different emergency, or “blue-light,” services like the police, the fire and rescue service and emergency medical care. Saab is one of the suppliers to the system. Domestic security has become an area on which an increasing number of corporate groups, both within and outside the defence industry, are focusing their business.

In order to respond to these changes in the environment, Saab has undertaken an internal process of change, leading to revisions in strategies and control at the corporate, business and functional levels. The purpose has been to adapt operations to the changed conditions. What these adjustments mean will be discussed in the next section.

2.4 Changes in Saab’s Strategies and Control

A central element in the process of change at Saab has been to shift the focus from the Swedish market, where the resources available are decreasing, to the export market. It has therefore become important to create “one Saab”. This means,

¹² ‘A network-based defence consists of different actors, digitally linked both horizontally and vertically. A vertical link means that there is a digital connection the whole way from the individual soldier to the highest operational command. A horizontal link means that there is a digital connection between actors in different domains, such as air, land and sea. The vertical and horizontal links make it possible to create a real-time image that is at once congruent, comprehensive and detailed’ (Nilsson 2010, p. 80, translated).

for example, that synergy potential should be realized in order to supply customers with the integrated systems solutions that they demand, such as creating a network-based defence. For Saab to supply these systems, collaboration between two or more business units is often required.

Furthermore, with trimmed-down defence budgets throughout the world, countries have become unwilling to finance the development of new systems. Consequently, it has been a crucial strategic choice for Saab to create resources to finance development on its own. To implement these strategies, there has been radical change in the company's control systems. For instance, control mechanisms have been integrated; the time horizon for control has been prolonged, horizontal groups have been created, and strategic planning has become more involved.

In each of the next four sections, so-called evidence chains are used to provide a more thorough description of these changes. In this connection, an evidence chain is to be considered as a description of how changes in Saab's environment have affected the strategies of the corporation, how strategies have affected, and been affected by, changes in management and production control, and how the changed system of control has affected behaviour within the corporation. In conclusion, there is a fifth section on what the above has meant for the corporation's competitive advantage and performance (cf. Ezzamel et al. 2008; Goold and Campbell 1987; Miles and Huberman 1994; Pettigrew and Whipp 1991).

2.4.1 From Conglomerate to "One Saab" (from 2001 on)

A change in the orientation of Saab's corporate strategy, from being a conglomerate to starting to realize the corporation's synergy potential, thereby creating "one Saab," was considered important to the corporation's efforts to remain competitive. "One Saab" means a cohesive corporate group with a strong brand name and the capability of acting together and in unison when doing business on both a greater and a lesser scale. In order to implement the new strategy, a substantial change in control was required, from optimization of the individual business units to a focus on Saab as a whole.

Control began to change during 2001–2002. One example is the creation of the Business management group that included the heads of defence-related units. This group met on a continuing basis to discuss how the units could collaborate for such purposes as creating common comprehensive solutions. Another example is the creation of Saab International, a corporate-level unit with the task of coordinating global marketing and sales within the group. The most important change during this period, however, was the creation in 2002 of the corporate staff unit for Strategy and business development. For a number of years before then, there was no strategy staff at the corporate level; work related to strategy was decentralized to subordinate units. The following is an excerpt from Saab's annual report:

[...] each business area manager has clear financial goals and the mandate to reach them. Their ability to deliver will play a decisive role in the success Saab has as a whole. [...] All the business areas operate as industrial units, with clear operating objectives and essentially all the resources they need to achieve them.

(Saab 2000, p. 11)

The mission of the new staff unit was to replace the clear decentralization of the group with a focus on centralization. In 2003, when the new CEO assumed his position, endeavours to create “one Saab” were stepped up. In that same year, the business areas were terminated, and the business-unit heads thereafter reported directly to the managing director. The purpose was to remove organizational obstacles to free relations between business units. The Business development council, a group comprising the business development or marketing managers of the respective business units, was also established. The dialogue between the members of this group primarily concerned potential business operations across organizational boundaries.

At the turn of the year 2004/2005, the business units were grouped into three segments. The principal criteria for assignment to a segment were business logic and synergy potential; business units with similar or complementary operations were grouped into the same segment. By the end of the following year, there had been substantial restructuring in order to gather similar competence even more clearly into the same single business unit in order to promote realization of synergies. For example, all aircraft maintenance within the corporation was placed in a single business unit.

Overall, these structural changes were made to facilitate collaboration between business units, and the segments created were intended to communicate the importance of working together. For the latter purpose, management control has also been changed. The greatest change has been the implementation of an overall corporate strategy and a joint strategy process. It includes a number of seminars with representatives of corporate management and of the respective business units. A central part of the process is to discuss in a more structured fashion than before the applications of business units for approval of investments. Therefore, participants in the strategy seminars are organized as fictitious corporate managements with the duty of setting priorities among investment applications. The real corporate management then takes back the results from the seminars for consideration in decisions on which applications to approve.

By choosing, discarding, influencing, changing and rejecting [investment approval applications], we [corporate management] build up our strategy. These are the key decisions we take on our strategic direction [...], these give us power, in that we have the capital and thus the capacity to invest.

(Respondent, corporate management)

The strategy seminars also serve another important purpose, that of creating conditions for adaptation of business strategies to corporate strategy. Through participation of business-unit representatives in both the corporate and the business-units strategy process, they give and receive information in each process, and the strategic direction at the respective levels is thus formed through mutual accommodation. In addition, the seminars establish points of contact between business-unit representatives which are important for future collaboration, as in business across business-unit boundaries. At the same time, the business units are still evaluated primarily by monetary measures, particularly of the unit's growth and profitability. As one respondent noted,

the operating margin is a very powerful incentive for business units.

(Respondent, business-unit management)

It is emphasized, moreover, that the income statements and balance sheets of the business units have a higher priority than those of the corporation. A number of respondents noted that portions of management control thus run counter to the direction of corporate strategy.

To create motivation and inspire a will, you have to take another look at this [management control]. After all, we are measured solely on the results of the business units. If we have to give too much of the profit to others, we will lose some of our willingness to act on the basis of one Saab.

(Respondent, business-unit management)

Corporate management, however, do not seem to consider this a totally undesirable consequence. One respondent from senior corporate management emphasized that a reasonably large and well-composed business unit is the foremost factor for commitment and success; in other words, it is most important to create conditions for each business unit to become successful in its own business.

Corporate management control is thus used for different purposes. The strategic planning is in place to create one Saab, and the monetary targets are there to keep the focus on the individual business unit, particularly its businesses and individual monetary targets. As a consequence of the latter, however, considerable synergy potential has still not been realized:

Things are definitely moving in a direction where Saab is becoming more concentrated and is trying to pull together, but we still have a good way to go before you can say that we are really good at it. Tempers still flare up very easily, and there are hard-hitting discussions on how things ought to be and who is going to earn money and everything having to do with that.

(Respondent, divisional level)

However, there are many examples showing that the change in control for the purpose of creating “one Saab” has had the desired effect. In 2006 the five aeronautically related business units developed a common aeronautics strategy, an unprecedented step. This means, among other things, that the business units concerned are acting in concert within the framework of Clean Sky, the EU’s major project on a more environment-friendly way to fly. Each business unit, moreover, has adapted its own individual business plans to the common strategy. In that same year the Defence & Security Solutions segment conducted a review of the strategic business plans of each business unit in order to identify areas not covered, or overlapping, and new business opportunities between units. One consequence was that in the following year Systems and Saab Communications conducted their strategic planning in a joint process.

In addition, work is in progress within the corporation on a number of arrangements across business-unit boundaries, a development that several respondents attributed in part to the changes in control. For example, SBD and Saab Microwave System are collaborating in a common system in order to win the contract for a major export deal; Systems, Saab Underwater Systems and Saab Microwave Systems are working together on a Swedish submarine project; Systems

and SBD are collaborating on the creation of total solutions for weapons command and control systems, and Saab Training Systems is contributing to SBD's work on NLAW (an anti-tank missile launcher) through involvement in development and production of the simulator. Overall, Systems often works together with Saab Communications, Combitech, Saab Training Systems and Saab Microwave System in different types of business arrangements. In the domestic security business, too, there have been a couple of breakthroughs that several respondents would have considered impossible if the units had not been forced into conduct business development jointly.

2.4.2 From a Single Principal Customer to Many Customers: Focus on Exports (from 2003 on)

The focus of the Swedish Defence Forces on special defence operations means fewer resources for Sweden's defence industries; they spend less on defence materiel, and they are willing to purchase from foreign suppliers. In order to continue growing, Saab chose to try compensating for reductions in orders through an increased focus on exports. Despite greater efforts to export in the initial years of the 2000s, this endeavour did not really get underway until the 2003s. But then it yielded quick results. By 2005, exports accounted for a majority of sales (56 %) and the share of exports in orders on hand was 75 %. An increase of 10 percentage points in both cases. At the end of 2009 the corresponding figures were 69 % and 62 %, respectively. In total, the export-related increase in sales for the period 2003–2009 was 115 %, from SEK 7.9 to SEK 17 billion. Moreover, Saab's annual report for 2010 points to a continued positive trend.

One consequence of the efforts to increase exports is the much higher degree of uncertainty about which orders the corporation will receive. Relations with FMV are very good, and the parties are engaged in a continuing dialogue on future business. On the export market, by contrast, Saab does not have anything like the same relationship with potential customers; there is thus considerable uncertainty about the inflow of new orders. Consequently, greater flexibility within the corporation has become a critical factor for success; the company must be able to adjust continually to the orders actually received. Precision in delivery, that is, delivery on time, has become another success factor. In relations with FMV, it has been possible to renegotiate delivery times if delays arise, but on the export market delays result in heavy fines and damage to the company's reputation. Consequently, there have been substantial changes within the corporation in order to focus operations on these two critical success factors.

An important element in the efforts to improve flexibility has been to enhance the skills of personnel. At Aerosystems a number of shop employees have been trained as ground staff, with competence as both mechanics and electricians. In this way the number of alternative ways to allocate manpower has increased greatly.

At Systems there have been efforts since 2004 to see that employees in software production¹³ have at least two primary skill sets. A broader range of competence leads to a larger number of choices in the division of labour within projects and thus greater flexibility in the use of manpower. The criteria for allocating competence-development resources have thus changed, from previously being spread over a number of specific areas of competence to free allocation on the basis of long-term needs for competence; it has thereby become possible to conduct training with a specific focus. In management control, moreover, job rotation has become an important means of encouraging employees to apply for new positions and thus broaden their skills. The above-mentioned efforts at Systems, however, have not had the impact sought by business-unit management. According to several respondents, many employees are satisfied with their work situation and have therefore had no wish to change their duties.

At SBD increased flexibility was one of several reasons why the internal profit centres were abolished and replaced by a functional organization in 2004. The creation of a uniform business unit has featured, among other things, implementation of joint processes for production, planning and follow-up. This has entailed, in turn, greater opportunities for transferring employees among the different production facilities, including both traditional and software production. There is some collaboration as well, but to a large degree each facility remains focused on its own operations.

The principal approach of the corporation to managing fluctuations in manpower needs is to collaborate with a number of consulting firms, both internal and external. Many business units have a target of meeting 85–90 % of manpower needs with their own personnel, and then filling the remaining requirements with consultants. With this policy it is relatively simple for a unit to adjust manpower levels without laying off its own employees. If there is not enough work, it is also possible to rent employees out to the company's own consulting firms.

The other critical success factor, precision in delivery, has also been the basis for a number of changes. For example, measurements of, and discussions on, precision in delivery have become important at all corporate levels. The purpose has been to try to change deeply rooted behaviour – some respondents refer to it as a strong engineers' culture – based on the fact that it had not previously been necessary to

¹³ The concept of software production is used in accordance with Nilsson (2010, p. 29, translated), that is, as '[...] a direct translation of Anderson's (2003) use of software production instead of software development or software engineering [...]. Software engineering and software production should therefore be considered synonymous [...]. As I interpret the concept, Anderson uses it to indicate that there are a number of concepts in traditional production that can be used in software production to develop it further. My intent in using the concept is similar. Above all, it is about pointing out that it makes no difference whether the production of software or of goods is involved; a common set of concepts can be used in discussing all types of production. Such a set of concepts also facilitates discussion on how to coordinate production strategies with corporate and business strategies.'

deliver on time to the Swedish customer. On the export market, however, the rules of the game are different.¹⁴

At SBD the “quality at the right time” initiative was launched in 2005 to solve the problem of late deliveries. By restructuring production flows, moving key people closer to the actual assembly and measuring the internal precision of delivery in production processes, it has also been possible to improve precision in delivery. Another part of “quality at the right time” is to involve the employees to a larger extent. Around the turn of the year 2007/2008, each section – the lowest organizational level – within the business unit gathered to discuss how they could help to meet the targets for the business unit as a whole. This effort also yielded results, but by the end of 2008, business-unit management had concluded that the changes were not sufficient; in other words, precision in delivery was still not satisfactory. Time and cost had long been given lower priority than the product itself; this factor, together with the lack of direct consequences for those in charge in the event of negative deviations, has shown that the engineering-oriented culture built up over many years is still strong within the business unit.

On the other hand, the focus on precision in delivery has contributed to changes in production processes at all three business units. At Systems and SBD, moreover, control for making operations more efficient has been a major underlying factor in the revision of production processes. The changes at the latter business units are treated in the next Sect. (2.4.3 From customer financing to more self-financed development). As for Aerosystems, the Lead-Time programme was conducted in 2001–2003 for the purpose of reducing lead times in the production process by half, a goal which they also achieved.

Until the Gripen contract with Hungary was signed in 2001, the business unit had only produced the JAS 39 Gripen for Sweden. The export business entailed quite different conditions for delivery: the modified aircraft were to be delivered within a year. The business unit therefore needed to change its production strategy in preparation for future orders of the same nature. The external requirements were of great significance in the endeavour to change, or as one respondent put it:

It was like putting all processes on turbo.

(Respondent, business-unit management)

The lead-time project resulted in a new production strategy and changes in control in order to support the new production strategy. The production process was changed from being divided into stations and based largely on the shop employees’ own decisions on assembly of individual parts without direct collaboration between stations, to a process that was team-based and flow-oriented, with few internal delivery points. In addition, the process became more standardized in implementing the respective stages of assembly. The latter was a consequence of introducing production controllers. Via these, assembly was divided up in detail into a number of commands and production orders that provided a clearly structured, predictable process. The process

¹⁴ For a more detailed discussion on the importance of culture as a control mechanism, see Chap. 3 on Atlas Copco’s strategies and control.

was thus easier to follow up. The implementation of a new MPS system in 2006, as a replacement for some 50 individual systems, is considered in turn to have aided in the creation of an integrated information flow in the final assembly. As an effect of the system, all planning and follow-up is done from the same starting point, and it has been possible to make decisions on the base of information that is relevant and closely linked to operations. The latter is due partly to the fact that much of the information is fed in by assembly-line employees, who are right in the midst of the production flow.

Also, management control and production control have been integrated to facilitate on-time delivery. This was the case not only at Aerosystems but also at SBD and Systems. For example, the forecasts of new orders – including both existing and forecast orders – in strategic planning (a part of management control) have become the starting point for overall production planning (a part of production control). Negative time deviations in relation to production planning are then captured in measurements of internal delivery precision, this within management control. The resulting integration enables the personnel in charge constantly to observe current actual production in relation to plan. One consequence is that important information is given on where corrections should be made, which in turn can provide a basis for a decision to increase efficiency in the production process and thus meet overall targets for production control. The importance of integrated control is discussed in greater depth in Sect. 2.4.4 (From “government agency” to new business thinking: Toward integrated control).

2.4.3 From Customer Financing to More Self-Financed Development (from 2007 on)

With the decline in orders from FMV to the Swedish defence industry, together with Sweden’s new materiel supply strategy, FMV no longer finances innovative development. Nor is Saab in a position to obtain financing on the international market; they need to invest the resources themselves. It has thus become important to improve efficiency in operations in order to create resources to cover the increased costs of marketing and selling on export markets. At the corporate level this has entailed changes in management control that put a focus on cutting costs.

At the end of 2007, the COGS (Cost of Goods Sold) project was launched for the purpose of saving one and a half billion SEK annually after 2010. The project required that the business units economize each year, as they have clearly succeeded in doing. In addition, since 2007 the business units are to prepare complete monthly financial statements so that the board and corporate management can follow developments more closely in monetary terms. Previously, complete financial statements were prepared only in connection with quarterly reports. A couple of respondents summarized the change in management control as follows:

Reporting has exploded in the past year [2007].

(Respondent, business-unit management)

In the past year there has been a very strong focus on financial aspects.

(Respondent, business-unit management)

At Aerosystems the focus on costs has led to discussions about improving efficiency in software production. For example, implementation of a new simulation environment has begun; younger and less expensive consultants have been retained, work packages have been outsourced and implementation of model-based production¹⁵ has commenced. The focus on precision in delivery has also had an effect on the latter change mentioned above. Model-based production is considered a more time-efficient process that is helpful in meeting delivery commitments.

As far as SBD is concerned, the work of improving efficiency meant that everything not absolutely necessary for conducting projects during 2008 was deleted from the budget. For example, the long-term endeavour in methods development initiated in software production has been postponed. Thus, the newly commenced adaptation of software-production strategy to business strategy could not continue as planned. The following are some examples of more positively oriented changes resulting from the focus on costs: a revised proposal for the next generation of Robot 70, a choice of general direction in the use of model-based production in software production, as well as a decision that new development is to be conducted with the use of the joint business-unit instrument, CAD (Computer-Aided Design).

At Systems the efforts to improve efficiency have been in progress since the business unit became a part of Saab in 2000. At first the intent was to correct unsatisfactory financial performance; subsequently the focus shifted to achieving profitable growth. In both cases management control has played a central part. Revision of planning and follow-up processes began in 2004 and has generated links between the different control mechanisms. A clear focus, with solidly based endeavours, has thus been achieved. These include increasing capacity utilization in order not to lose work hours. Levels of revenue and costs are now brought up for discussion in follow-up, helping to ensure that the company

has managers who understand that it is important to meet the budget.

(Respondent, business-unit management)

As business-unit management has continually raised the targets for the invoiced sales, net income and new orders of the divisions, the outcomes in these areas have also improved. For example, the operating margin of the business units soared by some 250 % in 2005, and has thereafter remained at the corresponding level. This has occurred despite a decrease in the external development resources allocated and the cost increases entailed by the efforts on export markets.

¹⁵ Model-based production is used in the same way as in Nilsson (2010, p. 133, translated): 'The usual term for model-based production is model-based development. In accordance with the use of the concept of software production instead of software development, model-based production is used as a synonym for model-based development. The concept means that graphic models of the system serve as the basis for its design. From the models, moreover, documentation and codes can be generated automatically. As it is then a simple matter to reuse previously designed models, it is possible to achieve a higher degree of reutilization of previously delivered systems.'

We have developed from a rather rudimentary approach to long-range planning to being extremely ambitious now.

(Respondent, business-unit management)

The strategic thinking has gotten much better; nobody could fail to notice that.

(Respondent, functional level)

The effort to achieve profitable growth has driven the development of changed production strategies at Systems, as in the other business units. For example, iterative production has become a growing part of software-related operations. This approach is considered to save many work hours, primarily because of the continual feedback loop created. In addition, business-unit management is attempting to promote the realization of synergy potential between divisions in order to reduce consumption of resources, through the use of joint hard- and software platforms, for example. Also, a common product portfolio for the business unit as a whole has been established to replace the product portfolios of the respective divisions. The purpose is to avoid doing similar work on similar products in the different divisions; development resources are to be coordinated as much as possible so as to improve efficiency in the use of resources.

The respondents underscore, however, that the focus on profitable growth has had some negative consequences as well. For example, follow-up of measures in the Balanced Scorecard (BSC) has been overshadowed by monetary follow-up, with the result that some planned activities for achieving strategic targets are not implemented. Furthermore, short-term cost-cutting is directed at optimizing results on a quarterly and an annual basis. Another problem highlighted was the lack of a sufficiently strong culture of maintaining budgeted levels within the business units. Control is regarded as loose, a factor probably tending, at present as in the past, to soften the consequences of negative deviations.

2.4.4 From “Government Agency” to New Business Thinking: Toward Integrated Control (from 2003 on)

The change from a monopoly position, with an operation similar to that of a government agency, to subsequent exposure to competition, has been a central factor behind what a respondent called a business awakening within the corporation. Since efficient use of resources has become central for being able to deliver what customers want, it has been considered essential to integrate control mechanisms and information flows. While the importance of integrated control has been mentioned in previous sections, in this section these changes are discussed in greater detail.

At the corporate level, integration of the strategic business plan, the financial business plan and the budget have been considered important for achieving a more efficient and focused use of resources. The purpose has been to facilitate implementation of the new corporate strategic orientation. Links between the three control mechanisms have also been established in several ways. Since the introduction of a more structured method of dealing with investment applications, the strategic and financial business plans have been prepared in parallel, and the two business plans have been discussed together at

corporate-level seminars on strategy. The financial business plan translates the strategic business plan into an income statement and a balance sheet for the coming 5 years.

After the two business plans have been approved, the work on the budget begins. Since the outset of the 2000s, this includes preparation of a regular budget for the next year as well as a preliminary budget for the year thereafter. The preliminary budget serves both as the first year of the financial plan for the following year of operations, and as the starting point for the regular budget for the following year of operations. The use of the preliminary budget thus creates a connection between the two control mechanisms, and indirectly between the budget and the strategic business plan. Such a connection ensures that there will be continuous review of the matching between short-term and long-term control.

The integration at the corporate level is regarded partly as a central element in decision-making about and within the COGS project, a project that must be considered important for implementation of corporate strategy, as it helps to free up resources for essential activities on the export market. Through integration between the strategic business plan and the continual follow-up of the budget, information is created to facilitate identification of possible changes in the environment, of the time horizon for internal action to adjust the business according to these changes, of the time horizon at which internal changes are possible and of how much must be saved in order for the targets to be achieved.

Budget follow-up has also contributed information for decisions on the areas where the corporation should focus additional investment; it has thus affected which investment applications are approved by corporate management. One example is the stepped-up investment in UAV's, where budget follow-up has been one indication that there is considerable potential in this area.

The kind of integration between the three control mechanisms at the corporate level has also taken place within the business units. The latter, moreover, use non-monetary key ratios linked to the business plans and the budget. At Aerosystems a significant part of integration has been driven by the so-called SBG (a Swedish acronym for Strategic preparedness group). This group was formed in 2005 and charged with preparing the content and coordination of the four overall control mechanisms within the business unit.

The integration of the overall control mechanisms within Aerosystems has had a number of consequences. For example, the allocation of resources for development has been more focused, with a link to the general business strategy. The clearest example is the investment of the business unit in civilian subsystems. At the outset of the 2000s, they perceived the opportunities for utilizing their competence in military subsystems, such as fuel and guidance systems, on the civilian subsystems market, i.e. as subsuppliers to Airbus and Boeing. Substantial resources were set aside for development, and the business unit began subsequently to actively market a few selected subsystems. However, the unit has found it difficult to be competitive on price, and the budget follow-up shows that this endeavour has not led to the desired outcome. It has therefore been downplayed in favour of investments in other strategically prioritized areas with a better cash flow, i.e. Gripen and the UVA.

At SBD integration of the control mechanisms began in 2004, when management saw that the creation of a uniform business area with a clear focus was essential for addressing changes in the environment. During the period 2000–2003 the business area consisted of a handful of profit centres where each was trying to optimize its own business. Integration of these profit centres was considered necessary for achieving more efficient use of resources in relation to changes in the environment.

Integration within SBD has primarily entailed the establishment of uniform control directed at the critical success factors. Internal and external precision in delivery has become important throughout the business unit, and different control mechanisms have been used to accomplish the necessary change. These endeavours have also led to significant results. For example, an overall production plan was created as an aid to decisions on what missile orders are to be carried out and by whom. The point of departure has been the overall planning for new orders. The new production plan has restored some order and structure in internal production priorities and thus led to fewer problems with deliveries.

SBD's implementation of the IT tool KUPP (a Swedish acronym for Calculation, Follow-up, Planning and Forecasting) in 2005 is regarded as an important change in project control. Business-unit management has had several intentions with this implementation, but the overall purpose is for the system to function as support in the planning and follow-up of all projects. Since both potential orders and orders received have been put into the system, it is possible to obtain detailed information on the expected need for resources. This information is the central starting point for preparing the budget at the functional level.

Since the system also facilitates uniform planning and follow-up processes within and between projects, the quality of the information used in control is enhanced; within the same system, there are similar definitions, starting points and reporting of information into the system, thus contributing to more correct information. This is intended to help improve precision in delivery, an objective that has not yet been achieved to the desired extent.

The common system for planning and follow-up is also designed to facilitate collaboration between the geographically dispersed operations of the business unit, and this purpose has been achieved. For example, there has been temporary relocation of personnel, and discussions have been initiated on moving the production of certain parts from one place to another. In both cases the information in KUPP on resource needs has been used in the decisions for the purpose of achieving efficient utilization of resources.

Respondents take a positive view on using KUPP, primarily in planning and forecasting. Several note that the system has helped improve the quality of information in that everything is contained within the same system. As for follow-up, however, opinions differ. Some maintain that the degree of detail in follow-up is excessive, whereas others find it insufficient.¹⁶

¹⁶ For a thorough treatment of the importance of uniform IT systems for creation of integrated control, see Chap. 8 on Electrolux' strategies and control.

At Systems as well, integration of control was commenced in 2003–2004. The intention was to create conditions for efficient use of resources and a greater orientation toward results. This was considered a critical success factor for meeting the overall targets. Integration has meant that the budgets, and thus the planned investments, of the internal divisions are thoroughly discussed in relation to the strategic business plan. Also, the focus on costs throughout the business unit has led to implementation of new software-production strategies and thus to more efficient work processes.

Integration of control mechanisms within the business units has not been limited to management control and production control taken separately; rather, the two control systems have been integrated with each other. In all three business units, targets and measures for production are now handled within management control. Instead, overall production control concerns who will do what and when, and the time limit for the latter work is specified with the aid of the delivery-precision measure in management control.

In the case of Aerosystems, the connection between management control and production control means, for example, that negative time deviations in relation to production planning (a part of production control) are captured in measurements of internal delivery precision in management control. The same is true for SBD and Systems. Another example from all three business units is that the proportion of billable hours worked by employees in final assembly and software production is put in focus in management control with the aid of measures for capacity utilization.

The examples cited are used here to show that measures and targets regarding production are a part of management control. However, it could equally well be argued that information in relation to production planning is a part of production control, for the focus is precisely on the work of the production function in both planning and follow-up. With this point of departure, the principal criterion for classification of the measure is not the control mechanisms, but the function in the organization which the information concerns.

The discussion shows that it is not certain whether targets and measures related to production are part of management control or production control. This in itself is a clear indication of integrated control: there are no clearly separable parts of control; rather, the central flow of information converges into a whole. Since connections of the same type have gradually become a reality in all three business units, the management control and production control systems of the three units have been integrated.¹⁷

Despite substantial integration both within and between management and production control, parts of the total information flow have not yet been integrated with the central flow at either the corporate level or within the business units. For example, the division of responsibility for the strategic and financial business plans, respectively, at the corporate level means that a number of divergent

¹⁷ For further discussion on the integration of management control and production control, see Chap. 4 on Scania's strategies and control.

elements are evident when the two business plans are viewed together. At Aerosystems lowered cost levels in the budget do not always mean that the target levels for related non-monetary targets will be corrected. Nor do all sections have their own targets, and some respondents felt that employees at the lowest organizational level were not sufficiently involved in the processes of change. Furthermore, project planning did not always reach down all the way to the individual level, so that not everyone knew how targets at her/his own level were related to more comprehensive targets higher up. Management by objectives is still regarded

as something aside that you need to remember to work with.

(Respondent, business-unit level)

SBD has been working on trimming its organization, and this together with a high work load has been emphasized as the principal reason why working with operating plans at lower organizational levels has not gained a foothold. An operating plan is a breakdown of the strategic business plans for subunits within the business unit. The internal focus on time and cost has meant, in addition, that individual projects have been optimized, rather than that giving priority to actions focused on the long term. For example, there is no incentive in the project to implement minor additions that would be useful in future projects as well. On-time delivery to the customer has the highest priority, which means that internal development relative to non-monetary targets is often neglected in favour of operations-related work.

At Systems most of their non-monetary targets are of limited significance for purposes of control. One clear indication of this is that some section heads are not even sure about the number of perspectives used in the business unit's scorecard. Moreover, there appears to be a general lack of explicit involvement of the lowest managerial level in implementation of strategy. One respondent summarized it as follows:

As a manager at my level, you are very detached from everything. Not until this year [2008] did we have a managers' forum, which happened because all section heads' had the same boss and thus held meetings together. Otherwise it was a very isolated position.

(Respondent, functional level)

From the standpoint of business-unit management, the focus in a way has been to optimize monetary results on a quarterly and annual basis, or at least to try to make sure that they reach budgeted results, even if this is at the expense of a long-term view. This has meant in turn that business development has been put on the back burner. As one respondent put it:

If you end up with the right figure on the bottom line, you will probably receive a rather large degree of tolerance for the way you ran the business in getting there.

(Respondent, divisional level)

Despite this kind of deviations, it is apparent that control has come to consist of a clear central flow of information within the corporation, with a focus on the most critical success factors within the corporation: precision in delivery and improving business efficiency. This integration has led to the implementation and revision of new strategies.

2.4.5 Saab's Competitive Advantage and Performance (from 1995 on)

The purpose of this chapter is to gain added knowledge and understanding of strategic congruence and integrated control over time in a corporate group's striving to be competitive. Competitive advantage is to be understood in Porter's (1985) terms; that is, profitability over time must exceed the industry average if a firm exposed to competition is to be considered a strong competitor.

To determine Saab's competitive advantage, return on assets – ROA – has been chosen as the operational measure of the phenomenon; this is in line with many other studies (cf. Davis et al. 2003; Jacobson 1987; Morgan and Strong 2003). Among other things, the measure takes into account the income statement and the entire balance sheet, which is important in evaluating the total achievement of a firm (cf. Hallgren 1988).

Saab's clear monopoly position on the Swedish market from 1995 until a few years past the turn of the millennium indicated that the firm had virtually no exposure to competition. But Saab's products and services were sold on the competitive international market as well, and this business accounted for a substantial share of sales. Thus, even though Saab's exposure to competition was far from 100 %, it is sufficient to permit the use of Porter's definition given above as the starting point for a discussion on Saab's competitive advantage.

In order to form an opinion on the latter, a comparison between Saab's ROA and the industry average is required. As no overall average of the latter kind could be identified, averages for the US and European markets, respectively, were chosen. In the first case, use was made of the companies included in SPADE defence index (DXS) as a starting point. In the latter case, the Thomson Reuters Datastream's European index for the aerospace and defence industries (AERSPER) was used. The respective indices, together with Saab's rate of return, are presented in Fig. 2.2.

The figure shows that Saab throughout the 2000s has earned a return in line with the rate of return in Europe (except for 2008)¹⁸; in some years it has been somewhat higher and in other years somewhat lower. In comparison with the average US competitor, by contrast, Saab's rate of return was lower throughout the period under study. In the 1990s the difference was substantial, whereas in the latter years of the period under study, it was 1–2 %, except for 2003 and 2008, when it was greater.

It is important to realize, however, that Saab and the US parties have operated from two widely different points of departure. So far in the 2000s, Saab has had to face a reduced domestic defence budget, foreign competition for business with FMV as the customer and overall a sharp increase in exposure to competition. The US parties, on the other hand, have benefited from a strong increase in the defence budget. The US involvement in major armed conflicts during the 2000s has meant that firms in the US defence industry have received more orders from the US

¹⁸ The marked decrease in Saab's rate of return in 2008 was due largely to fund allocations and write-downs on civilian aircraft projects.

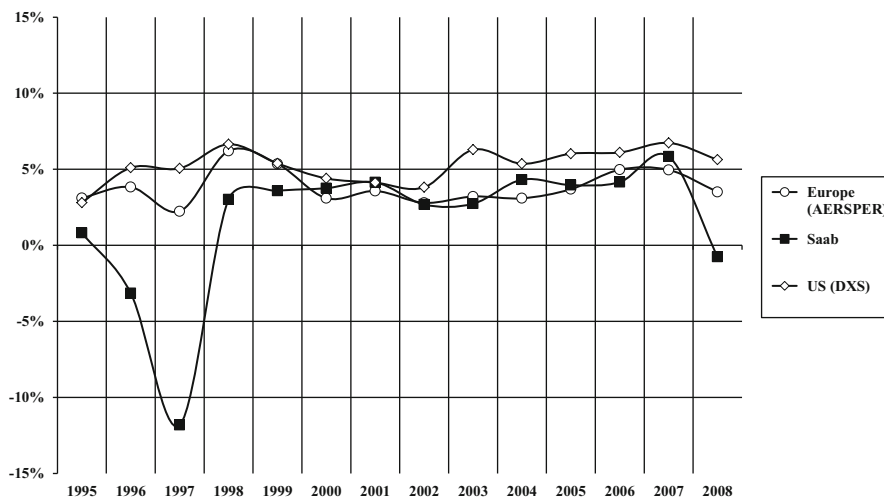


Fig. 2.2 Saab's ROA and average ROA in Europe and the United States, respectively, in 1995–2008 (Nilsson 2010, p. 112, translated)

government, orders for which international suppliers have not been allowed to compete. Similar conditions apply for the major European defence firms as well.

As measured by return on total capital, Saab's competitive advantage by definition cannot be considered strong; a clearer difference in relation to the European average would have been necessary, as would a higher-than-average return in the US. But with conditions differing so sharply between Saab and many of its European and US rivals, Saab's rate of return must nevertheless be considered good at least by comparison with competitors. If we also take into account the difference in business conditions, Saab's competitive advantage can even be considered strong. With limited means (relatively speaking) and without the backing of a politically influential customer on a global scale, Saab has performed impressively in achieving a return over the years on a level with that of its international competitors.

A firm's competitive advantage, in turn, may be assumed to create value (i.e. high performance) for a number of stakeholders. In the literature, interest is focused on three groups of stakeholders: shareholders, customers and employees. High performance for each group is considered a precondition for high total performance by the firm (cf. Goold et al. 1994). Therefore, measurement of Saab's performance is important as a complement to the preceding discussion on the company's competitive advantage. To use only measures of competitive advantage as a starting point may be misleading, as a presentation of the corporation's performance will make clear.

However, the operationalization of performance with all of the above-mentioned stakeholders as a starting point is not possible here; there is simply no externally available information on value creation for the customers and employees of the competition. The discussion on performance has thus focused on shareholders, and

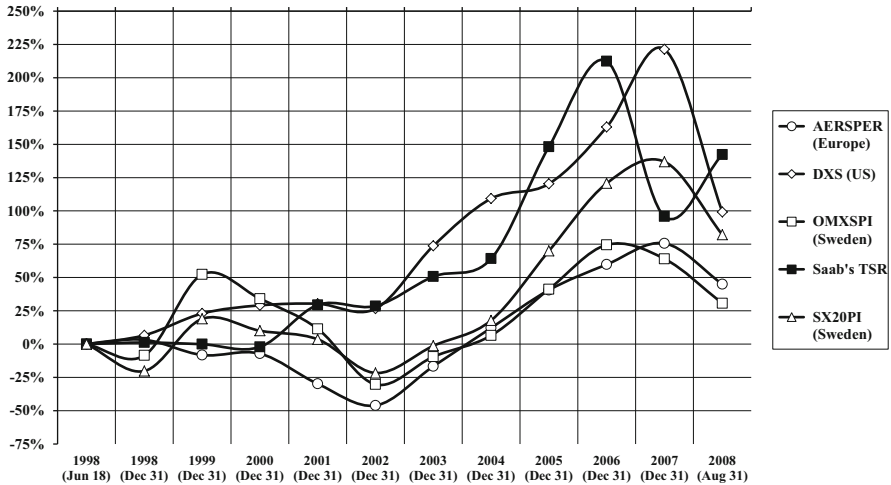


Fig. 2.3 Saab's TSR and four stock-market indices for 1995–2008 (modified from Nilsson 2010, p. 115, translated)

more specifically on a particular measure: total shareholder return (TSR) (cf. de Mortanges and van Riel 2003; Nilsson and Rapp 2005). The accumulated value of TSR has been calculated for each year with the aid of the following formula:

$$\text{TSR} = \frac{(\text{Sale price} - \text{Acquisition price} + \text{Reinvested dividend})}{\text{Acquisition price}}$$

Saab's TSR has been calculated and compared with the general index of the Stockholm Stock Exchange (OMXSPI) and the engineering-company index (SX20PI), the DXS index in the United States and Datastream's European index, AERSPER. The result is presented in Fig. 2.3. As can be seen, Saab's performance in the latter years of the period under study has been much higher than the European index and the two Swedish indices, whereas it has been on the same level as the US index. It can thus be concluded that the development of value for Saab's shareholders has been favourable (relatively speaking) during the period under study. Overall, Figs. 2.2 and 2.3 show that Saab, despite radical changes in the business environment, has done well in competition with the European and US players and thus maintained its competitive advantage.

Conclusions and Implications

The radical differences between Saab's environment before the millennium and its environment thereafter have led to sweeping changes of the corporation's

strategy and control.¹⁹ Strategically Saab decided to focus on the export market in compensation for the decline in orders from the Swedish market. Moreover, they chose to build a cohesive and synergy-realizing corporate group, “one Saab,” to meet customer needs for more integrated systems solutions and to utilize internal resources more efficiently.

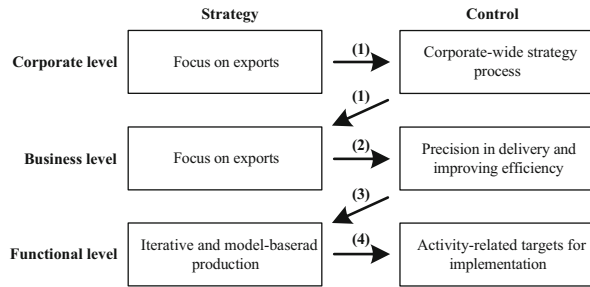
To implement strategies, different types of control mechanisms have been used. The so called control mix has consisted primarily of what Malmi and Brown (2008) refer to as administrative control, planning and cybernetic control. In the first case, a number of major structural changes in organization have been implemented, and the management structure has been changed with the introduction of horizontal groups. Planning has been changed through the introduction of a common corporate strategy process, and in cybernetic control the use of the budget and key performance indicators has been changed. In large part these mechanisms are complementary and create a common focus on the critical success factors. The continued evaluation of business units on the basis of monetary targets, however, encourages conflict in the behaviour of the units; this can be seen, for instance, in their continued emphasis on their own businesses instead of considering the corporation as a whole. This preference is evidenced, for example, in comprehensive discussions on how certain business across business-unit lines is to be conducted and who is to make money. Furthermore, there is continuing internal development of products and platforms within business units rather than with other business units. The latter would probably lead to more efficient utilization of each SEK invested in development. The same is true of the priority given by business units to their own small-scale operations instead of the larger business conducted jointly.²⁰

Nevertheless, there has been clear mutual adaptation between strategies and control at the corporate, business and functional levels. This has meant, in turn, that congruent strategies have been formulated and implemented, and that control has been integrated. Two cases are provided below to serve as examples. The accommodation presented, however, is not unique to Saab; previous studies show the same pattern (cf. Bhimani and Langfield-Smith 2007; Langfield-Smith 1997; Otley 1980). However, since most of them are not focused on all three levels, it is not possible to form a complete opinion on their interplay (see for example Roberts 1990). The discussion below provides a valuable contribution to research in the area through its holistic review of the accommodation that has taken place (see also Anjou 2008). How this is done is discussed after the two examples.

¹⁹ The content in this section is to a large extent an exact reproduction of parts of the concluding discussion in Nilsson (2010).

²⁰ For a more detailed discussion on the relationship between different control mechanisms in the total control mix, see Chaps. 3 and 4 on Atlas Copco's and Scania's respective strategies and control.

Fig. 2.4 Interplay between strategy and control for success on the export market



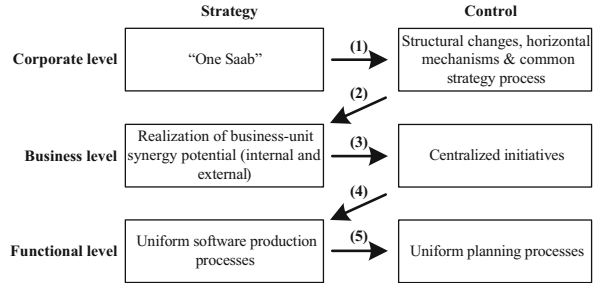
The first example deals with the focus on the export market and is illustrated in Fig. 2.4. The numbers provided in the following text indicate which part of the figure is being treated. (1) The corporate endeavours to exploit the export market increased considerably in 2003 in order to compensate for the decrease in resources from FMV. With the implementation of a corporate-wide strategy process, the strategic business plans at the corporate and business-unit levels, respectively, have been prepared in parallel through accommodation. As this process has helped to link together corporate and business strategies, it has also tended to reinforce the focus on exports within the corporation.

(2) The two main critical factors for success in exports have been to deliver to the customer on time and to improve the efficiency of operations. To achieve the first goal, targets for precision in delivery have been established, and the outcomes in relation to the targets have been given considerable attention in follow-up. In order to improve efficiency in operations, the budget has been used. In particular, the management groups at each level have set requirements for reducing budgeted cost levels. Moreover, follow-up has become more frequent, especially at the corporate level, in order to improve control over the development of costs.

(3) Control for greater precision in delivery and significant improvements in efficiency have led to discussions on the functional level concerning, for example, how production processes can be changed so that the targets in question can be reached. In software production, one result has been that implementation of iterative and model-based production has begun, as these are considered to help shorten lead times as well as reduce costs. In addition, the change has contributed to greater flexibility in production, a step deliberately taken for the purpose of managing the consequences of the uncertainty on the export market. (4) At the functional level management control has been used to ensure implementation of the changed production processes. This has been done through formulation and continual follow-up of activity-related targets for introduction; in other words, activities for implementing changes have been identified, and deadlines for their implementation have been set.

The other example of accommodation, or mutual adaptation, concerns the focus on realizing synergy potential at all levels within the corporation (see Fig. 2.5). (1) Since 2003 it has been the ambition of corporate management to create “one Saab”. To achieve this aim, structural changes have been made, horizontal

Fig. 2.5 Interaction between strategy and control for realization of synergy potential



mechanisms have been implemented and the corporate-wide strategy process has been used to communicate the importance of realizing synergy potential. (2) At the business-unit level, this has meant, for example, that in the planning of future endeavours and business activities, greater consideration has been given to other business units. A number of business transactions extending across unit boundaries have been implemented. In addition, within the business units the realization of synergies has been regarded as important, primarily for making it possible to utilize monetary resources more efficiently and thus cover the increased costs entailed by the focus on exports. (3) For this purpose, a number of centralizing changes have been made. An example is the implementation of KUPP at SBD, one aim of which is to facilitate coordination of different production facilities.

(4) The centralizing changes have eliminated a number of information- and organization-related aspects that have made it more difficult to coordinate within business units. In the first case, IT systems like KUPP has helped to create a common information flow for production processes, concerning for example which work package is to be processed when and by whom. On the other hand, the organizational changes at SBD, for example, have led to production being gathered into common units. These changes, together with the earlier mentioned change process of adapting production in accordance with the two critical success factors have helped to provide a common starting point for software production within the respective business units. Uniform production processes have thus been implemented. (5) These have contributed to the establishment of uniform planning processes. As an example, the senior management for final assembly at SBD meets continually for such purposes as discussing problems faced by the different units. The topic may concern efforts to find a solution to problems of personnel deployment through such means as temporary geographic relocation. This type of integrated planning for final assembly can make it easier to realize synergy potential.

In sum, strategies at the corporate, business and functional levels have been adapted to the environment and to each other in a way that has led to the emergence of two primary critical success factors within the corporation. With the control system integrated and adjusted to meeting these factors, a focused information flow has been obtained. As a consequence, decisions have been

made and changes implemented that in many cases have a common purpose: to succeed on export markets. The considerable degree of strategic congruence and a set of controls that in many ways are integrated have thus been important in enabling the company to pursue new strategies to meet the overall goals of growth and profitability.

Implementation of the changed strategies has taken place while at the same time the corporation has maintained its competitive advantage in a radically changed industry. This is an indication that the strategic congruence and integrated control achieved by the corporation have been essential to its competitiveness. Exactly how essential, though, is impossible to specify. It is clear, however, that the interlinking of strategies and control has been important in motivating employees to identify and implement solutions, partly to compensate for reduced revenue on the Swedish market, and partly to adapt the business to conditions on the export market. Since implemented strategies adapted to the environment may be considered central to a company's success, it is reasonable to assume that Saab's strategic congruence and integrated control have been important to the corporation's competitive advantage. With this conclusion, the chapter provides a significant contribution in view of the long-present demand for multilevel studies on the relationship between strategy, control and competitive advantage (cf. Bhimani and Langfield-Smith 2007; Langfield-Smith 1997; Otley 1980). This provides a clear and detailed picture of how strategies and control at and between all organizational levels have interacted in a way that has created a clear focus and thereby put in place the conditions for competitive advantage.

The chapter thus provides empirical evidence related to Nilsson and Rapp's (2005) more theoretical reasoning on the importance of strategic congruence and integrated control; Saab's actions in accordance with the changed environment are consistent with the authors' hypothesis on behaviour to create competitive advantage. The chapter also shows that it is not necessary to drive integration of strategies and control to an extreme. What matters is to create a flow of information that is integrated and that reaches virtually all parties concerned; this creates internal transparency with in turn permits decisions and actions in accordance with goals and strategies.

At the same time, the chapter also contributes to research related to the importance of exposure to competition in adaptation of strategies and control (see Chandler 1984; Khandwalla 1972). The study is an example showing that previous research findings are still relevant. At the same time as Saab's competitive situation was changing from a monopoly position to one of considerable exposure to competition, control has become increasingly important in the organization. The growing use of control has also contributed to a change in behaviour and to implementation of new strategies adapted to the environment. All this has been brought about so that the corporation will be successful on the export market exposed to competition.

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