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The case of Saab Automobile AB

From core capabilities into core rigidities - A trajectory towards demise

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ABSTRACT

This master thesis is addressing the case of Saab Automobile AB, creating a full historical reconstruction using primarily extensive quotes derived from semi-structured interviews with former Saab employees and other relevant actors. The aim is to depict and discuss the roots behind the company's historically unique capabilities and its trajectory towards failure, together with the influence of General Motors' ownership in this detrimental process. The empirics suggest that Saab's sustained competitive advantages were mainly based on core capabilities derived from historically determined knowledge accumulations. However, the huge success of the company based on engineering core capabilities paradoxically evolved into core rigidities which enhanced a technocratic culture, decreasing the strategic and organizational fit with General Motors. This cultural clash was nevertheless not the only reason for Saab's demise; low production volumes and General Motors' mismanagement created a situation where the development of dynamic capabilities were inhibited. Due to the lack of reconfiguration of knowledge assets, the core capabilities of the firm faded over time, leading the company into becoming a shadow of its past, unable to cope with future challenges. This path towards demise ended in December 2011 when Saab Automobile AB, an icon of the automotive industry, went into bankruptcy.

Keywords: Automotive, M&A, Cultural clash, Sustained competitive advantages, Core capabilities, Core rigidities, Dynamic capabilities, Reconfiguration

Notes for the Reader

In the following thesis, when the authors are using the company name “**Saab**”, they are referring to the car manufacturer “**Saab Automobile AB**”. This notice is to clarify that the authors are not referring to Saab AB, the military and defense company when writing “**Saab**”.

“**General Motors**” is named as “**GM**” when referring to the main company based in the US, and “**GM Europe**” when referring to the Europe based subsidiary, which includes the car manufacturer “**Opel**”.

When mentioning “**Spyker**”, the authors are recalling Spyker and related companies’ ownership of Saab Automobile AB.

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1. INTRODUCTION

In this thesis, the single case of Saab will be presented and analyzed through a historical reconstruction, following a theoretical strand considering historically determined and path dependent knowledge assets as the most relevant elements for creating long-term sustainability and survival. The authors agreed on this standpoint, arguing that the strong heritage of Saab was based upon a worldwide recognized “Saab spirit”, built upon excellent engineering capabilities and an entrepreneurial approach.

Therefore, the researchers created a full historical reconstruction relying upon qualitative material derived from full quotations from semi-structured interviews. These primary sources were supported by several secondary ones in order to increase the credibility of the research. Nine different, both internal and external, actors have been interviewed in order to collect perceptions and opinions regarding the company in all the different eras of its life. The historical reconstruction has helped the authors in the understanding of this highly complex, and sometimes, contradictory case. Therefore, it also represents the biggest contribution of the research since it could create awareness and understanding regarding the case of Saab, providing relevant insights for future research studies.

Due to the qualitative nature of the variables, being deeply rooted in the organization since the foundation, an iterative approach following a grounded theory logic has been necessary to grasp the key elements of analysis for the understanding of this peculiar case. The findings derived from the historical reconstruction have been discussed, not being considered as normative conclusions but rather a starting point for further research regarding this milestone in the automotive industry.

1.1 BACKGROUND

SAAB, ”Svenska Aeroplan Aktiebolaget” (AB), later ”Svenska Aeroplan AB” and ”Saab Automobile AB”, has always been a carmaker challenging the design and technical solutions of mainstream producers. The “Saab approach” was to dare to be different, not being afraid of offering technology-pushed innovations, such as the first reliable application of the turbo in the passenger car field. The company always looked forward, setting high standards for design, safety and reliability.

“To me, the Saab ethos and ingredients are special and unique – design and style, engineering integrity, sporty and fun characteristics, and the unique Swedish character and elements of historical/societal narrative and personality construct.”
(Cole, 2016)

Saab’s brand is embodying the tension for the progress where the over-engineering logic was accompanied with simplicity and extreme usability. However, there was something about Saab which is not easy to grasp; a hidden innovative glimpse which was exiting the conventional scheme of the industry of that time; it was special. Due to their mindset, Saab cars were always referring to a peculiar category of niched and unconventional customers; a segment which appreciated the exclusivity and functionality of the car, without focusing on irrelevant, ornamental features. In fact, the purposeful aircraft simplicity derived from the heritage of the company created brand associations which played an important role in developing the “trendiness” of Saab.

The success of the company was, however, not eternal. Like a comet, Saab was a bright star only for a limited but glorious amount of time, constantly engrossed in financial struggle. Thus, on the 19th of December 2011, the firm filed for bankruptcy (SvD.se, 2011) at the District Court of Vänersborg after many months of failed attempts to secure external financing. At that time, Saab was owned and operated by Spyker, which two years earlier had acquired the company from General Motors, who in turn had owned the company for almost two decades. The failure of Saab raises questions such as how a company which was so special could fail without possibilities of revival, and what the roots of the events driving the company into bankruptcy were.

1.2 PURPOSE

The case of Saab is of high academic and managerial interest due to its linkages with the topics of mergers and acquisitions, cultural clashes and core rigidities. In fact, the common opinion is that GM, as Saab’s owner, was responsible for the ultimate failure of the company, through a period characterized by cultural clashes and mismanagement of the brand. However, the explanations for the bankruptcy of Saab can be dependent on several historically determined and interconnected tangible and intangible variables, as well as environmental influences.

Therefore, the researchers' purpose is to investigate the roots of Saab's trajectory from success into failure, rather than the failure itself, understanding how Saab, with its heritage of innovativeness and uniqueness eventually ended up in bankruptcy. Employing this explorative framework, another aim is to foster further academic research on relevant topics derived from this study.

1.3 RESEARCH QUESTIONS

According to the purpose of this study, and by following an explorative, iterative process, three research questions have been developed with the aim of understanding Saab's historically determined competitive advantages, how the relationship with GM influenced Saab's competitiveness, and finally, what drove the company into its demise.

- 1) What were the origins of Saab's unique competitive advantages?
- 2) Did GM's ownership influence the sustainability and uniqueness of the firm?
- 3) What happened to the competitive advantages of Saab until the demise of the company?

The first research question is broad and explorative, based on a historical reconstruction of the life of Saab in order to depict the key competitive advantages which brought Saab to its success. The other questions are aiming to explore if the historical competitive advantages were influenced by both internal and external factors over time.

Even though the failure of Saab has been investigated through different perspectives (Oliver and Holweg, 2011; Olson, 2008; Štrach and Everett, 2006), the authors tried to include a more qualitative oriented approach relying upon subjective variables and opinions from actors involved in the life of the company. Therefore, the research questions are relevant for depicting the trajectory and the roots of Saab's failure.

1.4 THESIS DESIGN

As previously introduced, this thesis will be based on the following structure: In chapter 2, a literature review will be presented in order to support the subsequent discussion of the findings. The methodology will be explained in chapter 3, including the logic behind the iterative

structure and the reasons regarding respondent selection. The main part of the thesis, the historical reconstruction of Saab, will be presented in chapter 4, representing a way for the authors to introduce a comprehensive review of the empirics and the analysis of the case. Finally, the discussion will be carried out in chapter 5, and appendices and references will be presented in chapter 6 and 7 respectively.

2. LITERATURE REVIEW

In the following chapter, a review of literature relevant for gathering an understanding of how Saab's competitive advantages evolved over time and how this evolution could lead to disadvantages and, ultimately, failure, will be given. First, the prerequisites for, and building of competitive advantages will be presented, followed by an overview over how a trajectory from a competitive stage into rigidity can unfold. Finally, a review of literature explaining the importance of softer qualitative variables in mergers and acquisitions (M&A) is delivered to the reader. In the following sections, the reference "(ibid)" will be used for identifying when the same source is used subsequently (Harvard University Press Guidelines, 2016).

2.1 THEORETICAL INTRODUCTION

The strategic management literature is widely discussing how firms should be able to build competitive advantages in order to foster growth as well as increasing the probability of organizational survival. According to Penrose (1960), organizations are a collection of historically determined resources which are heterogeneous in nature. One historical antecedent of growth thus becomes an accumulation of firm-specific and unique knowledge (Penrose, 1959). This historical path dependency which is shaping organizations is a view undertaken by several authors. In Normann (2001), Henry Mintzberg states that a physical product is the output of an accumulation of all past knowledge and activities in a firm. Richard Normann's (2001) view is very similar, considering organizations as "*the platforms that liberate us from the past and enable us to move into the future*" (pp. 1). Today, firms are competing on the creation and utilization of knowledge rather than financial management (Leonard-Barton 1995). Therefore, the management of these core strategic capabilities is what determines the competitiveness and survival of a firm, hence the importance of understanding how a set of core capabilities based on human resources can provide competitive advantages (ibid).

Following this literature strand, the authors will, in agreement with the methodology (Chapter 3), investigate the nature of the competitive advantages of Saab, keeping a humanistic, knowledge-based view rather than a financial one.

2.2 COMPETITIVE ADVANTAGES THROUGH CORE CAPABILITIES

Jay Barney (1991), described in the resource-based view (RBV) model the organizational knowledge as an asset which could provide the company with a competitive advantage. In order for a firm to achieve not only a competitive advantage, but also a sustained competitive advantage, resources must be valuable, rare, imperfectly imitable and non-substitutable. The human and intangible factors are, through their underlying nature of being both causally ambiguous and socially complex, furthermore providing a resource, or a bundle of resources linked together, with the potential for a firm to achieve sustained competitive advantages (ibid). The RBV is part of a theoretical strand focusing on internal characteristics of a company, while avoiding deeper analyzes regarding the external environment and its sources of influence. In contrary, Porter (1980) emphasizes positioning the firm on the market as the main determiner of company performance, thus representing a strand of literature more focused on external drivers of influence.

Following the evolution of the RBV, management of knowledge assets which are underlying capabilities, is considered as the only way of gaining a long-term competitive advantage (Marr et al., 2014). However, a clarification of the difference between what constitutes a capability and how it differs from a competence is needed, especially when considering them as “core”, thus being the underlying factor for success and survival.

As could be seen in the article “The core competence of the corporation”, Hamel and Prahalad (1990) introduce the “core competence” as a new strategic management paradigm. The authors are defining core competences as a combination of skills and technologies individually coming together into different product lines. Stalk et. al (1991) suggest that competences and capabilities are representing two different dimensions even though they are complementary because of their inherited human capital aspects. Due to this confusion, the two are often used interchangeably (Long and Vickers-Koch, 1995).

Marr et al. (2004) treat Barney’s (1991) capabilities and Prahalad and Hamel’s (1990) competences as sources of the previously stated knowledge-based competitive advantage, prolonging the argumentation of human capital in general, and the knowledge connected to people in particular, as being the most important factor for the creation of organizational capabilities. A certain combination of capabilities is becoming competencies (Marr et al.,

2004), thus the formerly stated capabilities are narrower and more focused while competences are broader.

The development of particular capabilities is thus relying on the possession of specific knowledge (ibid). Therefore, organizations need to know how to evolve and sustain capabilities as the foundation for sustained competitive advantages. The knowledge assets are then the base for organizational capabilities (ibid), and following the same logic, evaluation models based on intellectual capital have contributed to a better understanding of knowledge assets crucial to a firm's development of future strategies (Marr and Moustaghfier, 2005). Many authors have attempted to provide a definition template for intellectual capital which could be used for assessing intangible assets in general and knowledge assets in specific. Marr and Moustaghfier (2005) state that; "*Intellectual capital embraces any valuable intangible resource gained through experience and learning that can be used in the production of further wealth*" (pp. 1116), including employees' skills and know-how; organizational culture; stakeholder relationships; image and reputation; technological infrastructure; practices and routines, and; intellectual property rights (ibid). Another definition which could bring clarity and understanding is emphasizing that when conducting a monetary evaluation, the intellectual capital is the sum of hidden assets which are not visible on the balance sheet (Roos and Roos 1997), being identifiable and controllable non-financial assets which do not have a physical substance (International Accounting Standards Board, 2004). In order to create value through the organizational intellectual capital, firms must evolve management practices by increasing a participative logic within an environment based on involvement and trust (Masoulas, 1998). Therefore, managing the intellectual capital should be a dynamic, iterative process (ibid).

2.3 CORE CAPABILITIES AND CORE RIGIDITIES

"Capabilities are considered core if they differentiate the company strategically" (Leonard-Barton, 1992, pp. 111), and the basis of their existence can be traced back to knowledge within the firm (Barney, 1991; Marr et al., 2004; Leonard-Barton, 1992 etc.). These knowledge-based capabilities are path dependent, thus being considered as the accumulation of historical decisions and events. Due to this construction of capabilities over time, they become institutionalized in the company (Leonard-Barton, 1992).

According to Leonard-Barton (1992), there are four different dimensions of the set of knowledge present in a company underlying its capabilities, and all dimensions are in nature related and interconnected. The four dimensions are; skills and knowledge; managerial systems; technical systems, and; values and norms (ibid). The skills and knowledge of employees is taken advantage of through its presence in technical systems which in turn are guided by the managerial ones. The holistic company-specific values and norms affect this link through its often implicit application of work processes and control mechanisms (ibid).

The repetition of behavior and accumulation of organizational beliefs derived from previous corporate success thus becomes a basis for core capabilities which in turn are strictly related to the knowledge system in place within the organization (ibid). Therefore, the company-specific heritage evolves into capabilities which form the uniqueness and inimitability needed for developing sustained competitive advantages (Leonard-Barton, 1992; Barney, 1991).

A strict correlation between core capabilities and long-term performance is thus evident. However, just as core capabilities are crucial for enhancing development, they can also have an opposite, inhibiting, role (Miller, 1992). In order to maintain a certain level of organizational flexibility needed for reacting to external change, an ongoing evolution or replacement of the core capabilities is needed in today's dynamic business environment. If not engaging in these activities, the core capabilities could become innovative obstacles, or core rigidities (Leonard-Barton, 1992). To avoid this transformation, a company should complement its excellent skills underlying core capabilities with other, more complementary ones raising a healthy voice of criticism in development phases (ibid).

Core capabilities can easily turn into core rigidities due to the nature of its antecedents of being based on past success, emphasizing the importance of a specific department due to past accomplishments connected to the performance of the department in question is common among firms (ibid). This reasoning makes the company less attractive for potential new recruits with a different skill set, which reinforces the dependency on the department bearing the core capabilities even further (ibid). A firm with an over-emphasis on engineering due to past success will e.g. not accept the contribution of a minority of market driven employees, but instead become even more engineering oriented, fostering the historically consolidated core capabilities. Due to this evolution, the engineering department tend to be more prestigious and self-reinforcing its organizational relevance in a dangerous manner (ibid).

Leonard-Barton (1992) is providing an example where Hewlett Packard engineers developing a personal computer, relied on and based their decisions on “next-bench” design, i.e. developing in accordance with needs and skills of their colleagues instead of undertaking a market driven approach. This proves as an example of a core capability transforming into a core rigidity - not being able to include a perspective other than the one from the engineering department (ibid).

Miller (1992) is another author describing the evolution of core capabilities turning into core rigidities, with the mythological tale of Icarus, the man who dared to fly so close to the sun that his “artificial wax wings” melted, causing his death. This tale describes the path from corporate success into decline, and represents a paradox where the strongest asset, being the foundation for success of a company in the past, in Icarus’ case his wings, can lead the company to failure in the long run (ibid).

As stated also by Leonard-Barton (1992), one of the reasons for this paradox, is that success is leading companies to excessive specialization and extreme confidence. Moreover, the drivers of success are causing on the one hand positive effects such as “galvanizing the corporate culture”, while on the other hand, leading the company into decline and ultimately failure (Miller, 1992). When companies are focusing on a single core capability “*other aspects are forgotten almost entirely*” (Miller, 1992, pp. 24). This increased focus therefore leads to a “monolithic culture” (ibid) where the company loses its flexibility as people within the organization is trapped in a myopic approach, where only the dominant learning style is permitted.

According to Miller (1992), “Configuration” and “momentum” are two processes connected to each other, and together they are enhancing the trajectory of core capabilities evolving into core rigidities. Configuration processes are focusing structures, policies and routines on a single core corporate theme such as a particular mission, thus creating a visionary corporate objective to reach. A momentum is then suppressing all variants of the configurations, but for a few, focusing more extensively around a limited number of goals in a way which makes the process escalate. “*The powerful get more powerful*” (Miller, 1992, pp. 27) and others get neglected until the situation is exaggerated to its extreme. A monolithic culture is adopted, making leadership biases evolve into overconfidence due to being inherited from what worked in the past. This behavior is increasing the company’s rigidity, making the corporate culture intolerant, avoiding new challenges derived from other departments (ibid).

Miller (1992) is presenting four trajectories based on empirical findings. “Decoupling” is the first one, where firms with a high level of marketing skills are evolving from “salesmen” into “drifters”, thinking they are able to sell anything, hence disregarding quality issues. The “venturing” trajectory takes place when a company is successful in enhancing its economy of scale and/or scope by building new ventures, moving into careless expansion. “Pioneers” are turning into “escapists” following the “inventing” trajectory, meaning that successful past R&D leads to corporate R&D heroes who are escaping reality, inventing impractical and futuristic products (ibid).

The final trajectory is derived from companies characterized by engineering excellence and is by the author perceived as “craftsmen” through a “focusing” trajectory becoming “tinkerers”. The competitive advantage derived from quality driven engineering is evolving into an obsession with details through a technocratic monoculture (ibid), leading to output characterized by engineering perfection rather than customer centricity. This situation is also known as building “a better mousetrap” (Spinelli and Adams, 2012). Instead of satisfying customers through high-quality products, the outcome is often over-engineered and over-priced, highly durable but also stale products due to long development time needed (Miller, 1992).

To avoid entering a trajectory as the ones stated above, a certain degree of self-reflection is needed to develop a firm in a favorable direction. Too strong efforts to create heterogeneous sub-cultures with the aim of avoiding detrimental trajectories are however not preferred, since too much organizational “noise” can lead to conflicts between sub-cultures or departments with a low level of efficiency as an outcome (ibid). In order to reach long-term success, self-reflection and customer centricity through involving customers in the value creation process is required (Normann, 2001).

In Normann’s (2001) book “Reframing Business - When the Map Changes the Landscape”, the author is trying to create a comprehensive, modern view regarding organizations by including external factors of influence both from the transactional and contextual environment as well as regarding stakeholder relationships as crucial. Adding an emphasis on learning through external influences to the earlier discussed RBV, Normann (2001) is recognizing the importance of being able to exploit core capabilities thanks to a holistic understanding of the conceptual past, being aware of the future potential trajectories undertaking a “*higher systemic logic*” (Normann, 2001, pp. 200). This “Crane” approach is elevating the view of a firm, giving the

possibility to “re-frame” the company’s borders with the goal of recognizing and acting on dormant assets by introducing customer co-production and co-creation of value with a value star that is customer-centric, rather than a value chain (Porter, 1985). These abilities are emerging from this process as a new consciousness regarding how the past is affecting the present and the future due to an enhanced learning style (Normann, 2001).

Following the same path that started with the RBV (Barney, 1991) and their consequent evolution where “core capabilities” and knowledge are considered as the main competitive assets (Marr et al., 2004), Ambrosini and Bowman (2009) introduce the concept of dynamic capabilities as an approach for companies to address rapid environmental changes. Just as Normann (2001) stresses, the authors are claiming that firms, in order to create a sustainable competitive advantage, should renew, reorganize and create new resources. The definition for “dynamic capabilities” has been introduced and developed by Teece and Pisano (1994). The “dynamic” part of the concept is connected to the possibility of facing the environment-based shifts and the ability of having a strategic answer within a short time horizon, while “capabilities” is based on the practices of adaptation, re-configuration and exploitation of competences within an unstable environment (ibid). This definition evolved into: *“the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments”* (Teece et al., 1997, pp. 516).

Additionally, Teece and Pisano (1994) state that competitive advantages of a firm are derived from dynamic capabilities which are *“rooted in high performance routines operating inside the firm, embedded in the firm’s processes, and conditioned by its history”* (pp. 538), thus being learning-based activities that systemically shape processes and routines to reach a greater effectiveness (Zollo and Winter, 2002). Therefore, dynamic capabilities are representing a shift from an emphasis on resources into focusing mainly on processes that are increasing the flexibility of a firm in order to adapt and survive in the long run (Ambrosini and Bowman, 2009). Moreover, in order to reconfigure operating routines, a firm can exploit its learning mechanisms, being based on tacit accumulation of experience, knowledge articulation and knowledge codification (Zollo and Winter, 2002). These mechanisms could directly lead to an evolution of the operating routines, but could also indirectly affect them through the mediation of dynamic capabilities (ibid).

Even though being difficult to identify specific dynamic capabilities, Wang and Achmed (2007) are presenting three main factors; adaptive capability; absorptive capability, and; innovative

capability. Adaptive capabilities are connected to the ability to identify and exploit new, emergent opportunities, balancing short- and long-term objectives with strategic flexibility. Absorptive capabilities (ibid) are referring to absorptive capacity which is a company's ability to identify and use information derived from external sources such as partners (Cohen and Levinthal, 1990), therefore utilizing externally acquired knowledge, implementing it within the previously existing company knowledge (Wang and Achmed, 2007). Finally, the innovative capabilities could be understood as a capability of developing new products and/or entering new markets due to specific behaviors and processes (ibid). An example of a dynamic capability is the development of an effective post-acquisition integration of a daughter- and a mother company since it involves modifications of both organizations' procedures (Zollo and Winter, 2002).

There are conflicting views in academia regarding the possibilities to adapt to a changing environment. On one hand, there is the view given above including Teece and Pisano's (1994) discussion on dynamic capabilities. On the other hand, there is a strand considering organizations as incumbents which are replaced by new entrants due to environmental shifts (O'Reilly and Tushman, 2008). The latter, Schumpeterian view, could be considered supported in some industries as is shown in the study of O'Reilly and Tushman (2008), so therefore, both points of view are academically viable.

To build upon both Teece and Pisano (1994) and Normann (2001), in order to avoid core rigidities, companies should be able to continuously innovate and create different sets of knowledge fostering creative thinking, also developing capabilities currently not present in the organization (O'Reilly and Tushman, 2008).

To achieve sustainable competitive advantages, companies should therefore aim for being able to integrate exploration- and exploitation phases in their learning mechanisms (Zollo and Winter, 2002). Exploitation is a way of increasing performance such as efficiency and profitability from an asset through a convergent logic (O'Reilly and Tushman, 2008), and exploration, a cognitive phase focused on discovery, innovation and divergence (Zollo and Winter, 2002). The ability responsible for this paradoxical integration is called ambidexterity, a reconfiguration process aiming at exploiting present- and new opportunities at the same time, thus having the ability to focus both on short- and long-term objectives (ibid).

Following this logic, core capabilities are connected to organizational processes and activities which are providing a current advantage. However, these core capabilities are not dynamic

capabilities due to the fact that they are not providing enhanced flexibility to the company in facing future environmental shifts and threats. Dynamic capabilities are instead representing the ability to create an ambidextrous company, able to overcome “competency traps” (Leonard Barton, 1992) due to the coexistence of mediated short and long-term objectives (O’Reilly and Tushman, 2008), also seen in “adaptive capabilities” (Wang and Achmed, 2007). An example of the quest for enhanced flexibility of incumbents in the automotive industry can be found in Nobeoka and Cusumano (1998) who claim that the ability to rapidly apply various technologies in several platforms is crucial for long-term sustainability.

Furthermore, ambidexterity in large organizations is connected to a better higher sales growth. In fact, ambidexterity is more effective than functional, cross functional or spinoff designs as could be seen in the study from Tushman et al. (2007). Ambidexterity is also associated with long-term success, improved innovation and an increased financial performance (O’Reilly and Tushman, 2008).

2.4 COMPANY CULTURE AND M&A

Mergers and acquisitions (M&A), as in any strong strategic collaboration, are representing a challenge for both organizations entering the process. These challenges are even enhanced, potentially generating conflicts, when the merge or acquisition is taking place across borders (Fealy and Kompare, 2003).

First of all, the term M&A, broken down into “mergers” and “acquisitions” is often mixed together. In fact, only 3% of all M&A turned out to be mergers, thus M&A almost always takes the form of acquisitions (Teerikangas and Very, 2006).

Teerikangas and Very (2006) stress the importance and the complexity of the concept of company culture. In fact, the concept of culture is including more than national and organizational culture. Also industrial culture, societal sub-cultures and multiple organizational, i.e. functional cultures are present in the definition. There are also certain interconnections between different levels of culture where changes in one part of the cultural system can trigger unexpected chain reactions. Therefore, the human dependent factors embodied in the company culture are the key variables to study in order to foster a positive outcome of M&A (Cartwright and Cooper, 1993).

Three different strands of research of culture in an M&A context could be identified. First, organizational culture is considered as a variable with the rationale taken that it affects an organization member's commitment, satisfaction, productivity and long-term sustainability. Second, the relationship between national culture and M&A performance shows differences between studies, with one of the reasons being that sub-cultures often exist also within national borders, and vice versa - cultures could also be very similar across national borders. Third, studies considering several cultures, such as both national and organizational, being present at once. In this matter, "acculturative stress" (Very et al., 1996) is introduced as a complex concept which, depending on its dimensions, can lead to both positive attraction and negative stress in rather unpredictable ways.

The cultural variable within M&A is considered to be one of the most important factors for the integration of two different companies in either a merger or an acquisition, and much research has been conducted trying to explain the relationship between "cultural fit" and the subsequent performance of the new constellation (Teerikangas and Very, 2006). Following the RBV strand, a company's culture - values, beliefs, assumptions and symbols - could be the foundation for a sustained competitive advantage (Barney, 1986). Consequently, managing the culture is a crucial activity for future sustainability and differentiation from competing firms (ibid).

In an M&A context, a fundamental interrogative is how to preserve the intangible origins of the competitive advantages of the firm being acquired, knowing that in most cases, M&A destroy rather than preserve these characteristics. To achieve synergies, the intellectual capital, e.g. embodied in employees' knowledge, should thus have the ability to be transferred, shared and taught (Gupta and Roos, 2001).

Therefore, cultural compatibility is a key element in leveraging the intellectual capital of the acquired company and achieving a good performance (Cartwright and Cooper, 1993). Evaluating the culture of the firm being acquired thus becomes important for the understanding of the future cultural compatibility and fit.

The longitudinal perspective is also an important factor to take into consideration, given that M&A processes are dynamic and evolutionary, i.e. changing over time. This includes variables such as integration strategy which could differ from an absorption strategy where the firm being acquired is fully absorbed, to a full preservation strategy where the acquired firm remains autonomous, hence lowering the risk of a cultural clash (Teerikangas and Very, 2006). The dynamic characteristics of M&A of course opens up for changes also in company strategy,

implying that a change from preserving into absorbing strategies could occur. The strategy chosen will thus mediate the relationship between culture and performance in M&A. Also, the behavior of the acquired firm will of course affect the integration process (ibid).

The concept of “acculturation” represents one strand in the M&A literature focused on human capital. The underlying processes imply that separation or integration of two different cultures is taking place (Seo, 2005). According to Cartwright and Cooper (1993), a holistic model for understanding the compatibility and positioning of different cultures are derived from two main variables; willingness of employees to abandon their own culture, and; perception of the attractiveness of “one other” culture, giving four different potential outcomes. The first one, “Assimilation”, happens when the acquired company will adopt the other company’s culture, only if the employees are willing to abandon their own culture and if the perception of the other company’s culture is positive. When the acquired organization is willing to abandon their own culture, but the other organization’s culture is, however, not considered attractive, confusion and a lack of belongingness is creating a “Deculturation”. “Integration” is instead taking place when the acquired company is willing to abandon their own culture at the same time as the other culture is perceived as attractive. A new culture, evolved from the original two then emerges. However, this could lead to several collisions. Finally, when “Separation” is the outcome, several different cultures still exist after resisting several attempts of integration, increasing the probability of cultural clashes and misalignment of objectives (Cartwright and Cooper, 1993).

Moreover, according to Teerikangas and Very (2006), the acculturative stress that therefore could occur will depend upon the congruence between both firms’ preferences for modes of acculturation, taking e.g. historical development of the firms and the employees’ deeply rooted mental schemes into consideration. The dynamic characteristics of this factor should furthermore not be neglected since the employees’ perceptions could change with time during the integration process. In the case of a more absorbing M&A strategy, at least one of the companies need to change, meaning that the cultural integration becomes even more important. In a set-up based more on autonomy, this consideration becomes less vital. Over time, the managerial integration efforts play an important role as well, including initial evaluation, strategy, attitude and integration skills. The authors pinpoint that the evaluation of the culture of the company being acquired is crucial and that an assessment as such should be done simultaneously as the more explicit and straight-forward financial one is being conducted. Thus, as a whole, integration strategy, acculturative modes from both firms’ perspectives, the

progress of cultural integration and finally managerial efforts are mediating M&A performance, also taking into consideration its dynamic characteristics (ibid).

As previously stated, a cultural clash is inevitable when the two companies have different histories, values and practices. However, this trajectory follows four predictable steps, introduced and presented by Marks et al. (2013). The initial step is called “Perceive Differences”, and people notice differences when comparing the organization with the new company involved. As an evolution of this, the “Magnify Differences” step emphasizes these dissimilarities, and distinctions become sharper and polarized. As an exaggeration, “Stereotypes” occur, representing generalizations of the magnified differences. Members within the organization begin to consider employees in the other company within categories; finance people in the mother company are for example all seen as “bean counters” and all engineers in the daughter company are perceived as “whirly-birds”. In the final “Put-downs” step of this trajectory, the cultural clash has reached its peak and the parent company is considered as inferior. The daughter company is e.g. perceiving itself as innovative, entrepreneurial and superior, while looking upon the mother company as “pants pressers”, focused on bureaucracy. The opposite view from the mother company is also taking place, identifying the acquired firm’s people as not able to run a real business properly (ibid).

2.5 SUMMARY OF THE LITERATURE

Competitive advantages are more likely to be sustainable and inimitable if they are based on path dependent and historically determined core capabilities. Due to their interdependence with the accumulation of knowledge, these competitive advantages are strongly linked with the culture of the firm. The department possessing the most important knowledge-assets will determine the sustainability of the company, enhancing its relevance and importance within the organizational structure and influencing the values embodied in the company culture.

This self-reinforcing cycle could generate a strong predominance for a monoculture and intolerance of divergent approaches or views from other departments, creating core rigidities based on the previously determined core capabilities. On the other hand, this convergence can provide the possibility to create short-term, highly successful outputs.

Due to these core rigidities, the firm can lose contact with its customers entering a path to demise in the long run. There are nevertheless solutions represented by dynamic capabilities,

being a way of mitigating short and long-term objectives by questioning the major learning style of a firm. In order to re-organize and better exploit assets, an analysis of the evolution of the core capabilities becomes highly important in the context of an M&A, knowing that the strategic and organizational fit can be based on different integration strategies, considering the obstacles which the mother and daughter company are going to face.

3. METHODOLOGY

The following chapter will explain how the research method has been developed in order to fit with the previously stated research questions and purpose, where the authors are considering knowledge-assets as the most relevant element in order to achieve sustained competitive advantages in a firm. Therefore, the most interesting and relevant variables studied in this thesis are based on qualitative materials, subsequently combined with a quantitative overview.

3.1 RESEARCH STRATEGY

In order to answer the research question, the research strategy is based on a combination of a qualitative and a quantitative method, although being primarily based on qualitative data derived from semi-structured interviews. This approach has been used considering that the purpose of the study is to enrich the knowledge regarding a specific case (Bryman and Bell, 2011). Therefore, the qualitative nature of the research is built within an explorative framework following the philosophy of a grounded theory approach (Suddaby, 2006), based both on an inductive reasoning as well as a deductive logic (Leedy and Ormrod, 2005).

One of the most important parts of a grounded theory approach is to be iterative in the way of working with literature, empirics and analysis (Howell, 2013). By undertaking this approach from the beginning, there has been an evolution of the specific focus in this thesis, starting from having Saab as an interesting single case to investigate due to an extensive media coverage and conflicting views regarding what drove the company into failure. The evolution of the topic has thus gone from gathering an understanding from actors present within the Saab context, listening to their interpretations regarding the initial success and later failure of the company. Therefore, a full historical reconstruction is in this thesis used as a tool of analysis when answering the research questions.

3.1.1 ITERATIONS

Being an on-going process of iterations throughout the evolution of the thesis, three major iterations can be identified and are here outlined in order to create a holistic view of the presented study from a reader's perspective. The nature of the iterations has been to "zoom"

back and forth in order to create an increased understanding of the historical events and its future implications.

The first iteration was focusing on creating a common ground regarding the history of the company through an analysis of important events, including innovations and car models released. This phase was concluded at the time of the bankruptcy. This iteration corresponds to the first research question; *“What were the origins of Saab’s unique competitive advantages?”*

Strong initial empirical findings, especially based on the primary data collected, suggested that one big antecedent of the fading success of Saab could be linked to a cultural clash with GM. Therefore, this relationship became a major, relevant aspect to investigate further in order to understand the impact of GM on the previously identified historical competitive advantages. This was supported by both primary qualitative-, as well as secondary data, and the focus of this iteration corresponds to the second research question; *“Did GM’s ownership influence the sustainability and uniqueness of the firm?”*.

Ultimately, the authors focused upon the third research question; *“What happened to the competitive advantages of Saab until the demise of the company?”* undertaking a broader perspective, regarding other potential reasons which led the company into its demise. This final iteration aimed to depict the trajectory and the roots of the original competitive advantages of the company, understanding if they were still present during different chronological periods, namely in the Spyker era, the bankruptcy, and the last ownership of National Electric Vehicle Sweden AB (Nevs).

While separated, the three iterations were highly interconnected, and the research questions evolved based upon the empirical findings derived from the semi-structured interviews.

3.2 RESEARCH DESIGN

The case of Saab will be analyzed as a single case study that could be treated as a “revelatory case” (Bryman and Bell, 2011), being only recently fully accessible due to a lengthy bankruptcy process. At this particular time, individuals involved in the company’s history are more freely able to provide relevant information needed in order to treat it as a topic of academic and practical relevance.

According to Yin (2009), there are several advantages when using a single case study. By undertaking this approach, the authors have been able to deconstruct and reveal as much as possible of the specific phenomenon, which has been advantageous given the high level of complexity in the automotive industry in general. The case of Saab includes peculiar contextual factors and unique characteristics, demanding a more idiographic approach (Bryman and Bell, 2011).

The downside of using a single case is that there is a lack of external validity in such research, hence the generalizability of the conclusions into other contexts and cases is severely limited (Yin, 2009). This lack of possibility to draw normative conclusions is however not affecting the purpose of this thesis, being as stated revelatory in nature, and hence advancing knowledge and opening up for further research which can be more focused on conducting generalizable studies where statistical inferences can be drawn, e.g. by conducting comparative and/or cross-sectoral research with a bigger emphasis on quantitative data (Bryman and Bell, 2011).

3.3 RESEARCH METHOD

In this section, a discussion regarding the method for collecting and treating primary and secondary data will be carried out.

3.3.1 PRIMARY SOURCES – SELECTION OF RESPONDENTS

Primary qualitative data has been collected through face-to-face interviews which have been recorded and fully transcribed. Due to the privilege of anonymity, one of the respondents is not mentioned by name, and neither was the interview with this respondent recorded. The empirical results derived from this interview will be referred to as “Respondent X”. Furthermore, an interview with Lance Cole, a famous Saab author, was conducted through email on his request. All the respondents approved the usage of the material and furthermore, they agreed on the content of the transcriptions and to, in text, be referred to as “(Surname, year)” as in accordance with Harvard University Press Guidelines (2016). All the interviewees also had the possibility to clarify and elaborate further on their transcribed interviews afterwards.

In this section, a rationale for why respective respondent has been chosen as a source for empirical data collection will be given. Furthermore, a short description of the person in

question and their relationship towards Saab will be handed out in order to give the reader the opportunity to recognize the social context and culture the person was encountered in together with potential biases that might have affected the respondents' accounts (Bryman and Bell, 2011) when reading the historical reconstruction of Saab (Chapter 4).

Olle Granlund (at Saab 1965-2000), product manager and engineer & Niels-Uno Håkansson (at Saab 1970-2007), engineer

Olle Granlund (Granlund, 2016) and Niels-Uno Håkansson (Håkansson, 2016) were chosen as the first respondents and they were interviewed together in the facilities of the Saab Museum in Trollhättan. They are both members of the association "Saab veterans", having worked in the company for many years. They were approached since the researchers wanted to gain a deep understanding of the historical evolution of the company from the point of view of former employees, from its earlier years over several decades and also ownership constellations, thus covering the majority of the history of the company (1965-2007). The two respondents also fit with the purpose since they could contribute with different perspectives; both a managerial and an engineering one.

Lance Cole, author of "Saab Cars - The complete story" and "Saab 99 and 900 - The complete story"

Lance Cole (Cole, 2016), designer, author and writer was the only interview conducted through email. He was chosen as a respondent due to his deep knowledge regarding Saab's history and sincere interest and passion about Saab cars. He also provided the authors with a more holistic view, including the customers' perspective, and an ability to benchmark Saab with other automotive manufacturers. Furthermore, Cole's two books listed in the header were part of the secondary sources used for the historical reconstruction.

Anders Wennberg, Chief Resource Officer at Chalmers University of Technology

After learning that Saab was characterized by a high degree of innovativeness, the researchers wanted to learn more about Saab's potential interactions with universities in general and Chalmers in particular, in order to find if Saab was collaborating with other actors in the automotive field, thus interviewing Anders Wennberg (Wennberg, 2016).

Bo Anulf (at Saab 2001-2011), Chief engineer and IT manager (interview A)

Through several iterations, the focus became more pointed towards how the procedures and culture changed when Saab was owned by GM and Spyker. Bo Anulf (Anulf, 2016a) was fitting the purpose of exploring these different ownership periods due to his managerial and engineering role in the company during these years, adding consultancy tasks also in Nevs.

“Respondent X”, financial expert involved in the last period of Saab and the bankruptcy

This respondent (Respondent X, 2016) asked to remain anonymous in accordance with the privilege of confidentiality. Especially knowledgeable in the bankruptcy, this person provided the authors with insights and documents valuable for depicting the nature of the assets present in the bankruptcy estate.

Jens B. Nordström, economic journalist and news reporter TV4, responsible for following Saab closely in the last years of the company life

Jens B. Nordström (Nordström, 2016) was able to provide an external perspective while at the same time having worked very closely to the company during the acquisition of Spyker up until the bankruptcy. He was able to offer a different opinion regarding what happened during the last years of Saab’s life. Additionally, he helped the authors in understanding the influence of Spyker’s ownership, and several different stakeholders and environmental factors involved in the process.

Steven Wade, (at Saab 2011-2012), Saab publisher & founder and author of the blog saabsunited.com since 2005

Steven Wade (Wade, 2016), Saab enthusiast and famous Saab blogger, was able to provide an internal perspective during the Spyker ownership. Being a blogger and highly knowledgeable about Saab, he could also demonstrate insights regarding the evolution of the company from an outside perspective, including access to many insider sources not accessible by the Swedish press. Wade is currently employed by Koenigsegg Automotive AB.

Christian von Koenigsegg, founder of Koenigsegg Automotive AB and shareholder of Koenigsegg Group AB

Christian von Koenigsegg (von Koenigsegg, 2016) was approached when the focus of the thesis had iterated several times into being on how the Saab-GM interaction affected the evolution

and evaluation of the historical competitive advantages. Advanced in the negotiations of acquiring Saab from GM through Koenigsegg Group AB, von Koenigsegg gave the researchers insights regarding the evaluation of the company and what characterized the procedures and conditions within Saab. He has also been a source of information regarding the reasons for why Koenigsegg Group AB withdrew from the negotiations, providing an opinion regarding why Saab ultimately failed to survive.

Bo Anulf (interview B)

A second interview with Bo Anulf (Anulf, 2016b) was conducted to get an even deeper understanding regarding what happened to the competitive advantages during the last years of interaction between Saab and GM. In this last iteration, the nature of the “marriage” between Saab and GM was analyzed, enforcing the authors’ knowledge regarding the detrimental trajectory of Saab’s competitive advantages.

3.3.2 SECONDARY SOURCES

Many secondary sources have been used as guidance and validation for the interviews conducted. For the sake of the historical reconstruction, Saab specific books from the Economic Library at GU as well as books purchased through recommendations have been used. Visits at the Saab Museum in Trollhättan, a thorough scrutiny of Saab related blogs such as “saabsunited.se” and the database of the “Saab Veterans”, YouTube commercials, Saab documentaries and interviews, and Saab Automobile annual reports derived from the Retriever Business database have helped in developing the authors’ case specific knowledge. Additionally, in the section “Quantitative Overview” (Chapter 4), secondary quantitative sources derived from other automotive players’ annual reports have been used as a benchmark. In the same section, automotive papers and reports from “Bilsweden.se” have been used for the same purpose.

The secondary sources used for understanding the bankruptcy estate which has also been the antecedent for some interview topics has been accessed through “konkursboet.se” and the news from Nevs in the web URL “saabcars.com”.

Underpinning the investigation of the external stakeholders and the automotive industry as a whole, “europe.autonews.com”, “nyteknik.se”, the “Zephyr” and “Orbis” databases, and interaction with academic professors with industry specific expertise, have all been used.

Example of keywords used in database research: Saab assets, Saab bankruptcy, Phoenix platform, Nevs, Spyker, Spyker company structure, Koenigsegg, Koenigsegg Group, Koenigsegg Group company structure, 9-3 EV, Saab culture, Saab brand, Saab innovations, Patents, Saab properties, Saab tools, Saab parts, Saab deals, Saab rumors, GM facilities, GM Europe etc.

3.4 DATA ANALYSIS

The analysis of the qualitative data gathered from the primary sources derived from fully transcribed interviews followed a grounded theory coding procedure. Just as with the research focus, literature and data collection, the coding of the empirical data was iterative, following a constant revision and fluidity of the coding procedure (Bryman and Bell, 2011). The data has in other words first been coded through an “open coding” practice, where the first breaking down, examination, comparison, conceptualization and categorization has been conducted. As a starting point for this procedure and for increasing the objectivity of the analysis (Campbell et al., 2013), the software NVivo has been used for developing a “word cloud” based on word frequency. This agglomeration of words used by the respondents was then cleaned from irrelevant words which could not be considered as suitable for further analysis, such as “and”, “the”, “with” etc. The software ATLAS.ti was used for finding connections between peculiar words of high importance for the purpose of the thesis, finding relevant units of analysis connected to relevant topics such as; “Platform/s”, “engineer/s” and “money” through so called “word trees” before any manual work took place. A visual presentation of the output is presented in appendix 1.

Following this initial procedure, an “axial coding” based on “negotiated agreements” (Campbell et al., 2013) between the authors took place with the goal of re-organizing the open coding material. By doing this, the coding categories were decided upon being in line with the research questions, considering the several iterations and the empirical findings. The bigger categories are embodying broader topics, namely; Saab characteristics; “Money” (being used as a synonym for financial resources); Ownership; Bankruptcy, and; Stakeholders. These

broader ones were then divided into more narrow sub-categories, being secondary codes. See appendix 2 for a visualization of the final categories.

The several coding iterations evolved in parallel with the research questions. An individual axial coding conducted separately by the researchers contributed to generating the final categories, which aimed to be mutually exclusive and exhaustive (Bryman and Bell). At the same time, the intercoder reliability has increased, addressing the “unitization” problem, i.e. making sure that the “unit of analysis” regarded from both authors has been the same (Campbell et al., 2013), which lowered the risk of confusion when the authors later on compared their individual interpretations. This intercoder reliability issue is addressed since the outcome of the case is aiming at having the potential for further research.

The output of the coding procedure provided the authors with the possibility of including meaningful “units of content” in the full historical reconstruction (Chapter 4). Thanks to this process, both the researchers and the reader will be able to gain a better awareness of the links between the evolution of the history of the company and its competitive advantages, culture and ultimately, potential reasons for the failure.

The secondary data was used primarily to support the historical reconstruction, and is thus following a more descriptive, chronological pattern. Some descriptive statistics aiming at providing the reader with a better understanding of the evolution of the company, including aggregations of innovations and models launched, will be presented in appendix 3. Financial data and other interval/ratio variables derived mainly from annual reports has been aggregated in tables carrying out turnover, net result, number of employees and production, and will be described in the section “Quantitative Overview” (Chapter 4).

3.5 RESEARCH QUALITY

Even though a mixed method has been used, this study has been primarily based on the qualitative data derived from interviews. As is suggested by Bryman and Bell (2011), the quality of the research conducted should not be measured by the validity- and reliability measures commonly used in quantitative studies. Instead, it should be made clear to the reader that there could be more than one true conclusion to draw, and the logic is that the research should be as transparent as possible in the explanation of how the research process has unfolded (ibid). Therefore, trustworthiness and authenticity becomes two main pillars in this alternative

way of establishing a high research quality (ibid). Also Morse et al. (2002) argue that a naturalistic, qualitative based research paradigm should contain different research quality criteria than research within a rationalistic, quantitative paradigm. Five substitutes for the validity- and reliability measures which are better suited for providing this logic, namely credibility, transferability, dependability, confirmability and authenticity have therefore been outlined by Lincoln and Guba (1985), and presented by Bryman and Bell (2011).

3.5.1 CREDIBILITY

Credibility is enhanced when following good research practice and by handing out the findings of the research to the people studied, also known as respondent validation, in order to get confirmation that the findings are representing the social world and are interpreted in a correct way (Bryman and Bell, 2011). In this study, all the interviews except one were fully transcribed and later sent to the respondents through email. All the interviewees had the possibility of revising their empirical contributions, clarifying ambiguous passages.

3.5.2 TRANSFERABILITY

In order for qualitative research to be transferable, one must get a full understanding of the context and culture being studied in order to be aware of if the conclusions could be applied in other cases. For the researcher, it then becomes crucial to get an as deep overview as possible regarding the context and the culture in place, thus transparency is fundamental (ibid). Through conducting full transcriptions of all the interviews, and by interviewing individuals with different positions both inside and outside the company, it has been possible to deliver multiple views to the reader while at the same time being able to present the respondents' statements literally. In this process, the authors have tried to communicate the true meaning of the content within its original context. In order to offer to the reader a possibility to draw personal conclusions about contextual factors and potential respondent biases, a short description of each respondent, together with reasons for why they were chosen as participants, was previously provided in section 3.3.1.

3.5.3 DEPENDABILITY

Dependability refers to that the researcher should enhance the trustworthiness of the research by keeping complete records such as field notes, selection of participants and transcripts from interviews (ibid). As mentioned, the interviews were recorded and fully transcribed. The secondary sources and all the keywords used for literature search have been kept in notes and the material has been stored in a specific database created in “Google Drive”.

3.5.4 CONFIRMABILITY

Confirming the presence of the researchers and their potential effect within the social context, together with some precautions taken for not affecting the collection of the data to a too large extent, should be carried out (ibid). A single standard interview guide (appendix 4) has been used in all interviews to ensure a certain level of confirmability. However, this guide has been adjusted depending on the role of the respondent and the evolved aims of the data collection corresponding to the different iterations in the research process.

3.5.5 AUTHENTICITY

This criterion is concerned with aspects such as fairness, ontological-, educative-, catalytic- and tactical authenticity (ibid). Simplified, it involves the potential impact of the research conducted by taking different actors into consideration and their understanding of the social environment surrounding the research (ibid). This is including a look upon their setting from other actors’ perspective, whether or not the research makes members engaged in action to change their circumstances, and if the research makes them empowered to take such action (ibid). Saab, no longer active as a company, makes it difficult to say that the research conducted makes the respondents engaged and empowered to change their circumstances. The other parts of this criteria have nevertheless been taken into consideration in the study through including actors with different positions in the company. The ontological- and educative authenticity has been present in the researchers’ minds, especially since respondents have been given the opportunity to re-think and re-answer certain topics and answers after being given a different point of view, thus being challenged by the researchers.

4. HISTORICAL RECONSTRUCTION

This section is a comprehensive review of the history of Saab, used as a tool of presentation and analysis of empirical data collected through secondary sources, enriched with the interviews conducted by the authors. As stated in the methodology (Chapter 3), the quotes presented are derived from full transcriptions of the interviews. The data has been analyzed and included in the history in order to create an enhanced view of the case of Saab.

4.1 THE HERITAGE OF SAAB

In this section, the reader will be introduced to important events from the early life of Saab in order to identify how the heritage of Saab grew and evolved into becoming unique competitive advantages. The section is ranging from the inception of the company in the 1940's until GM acquired 50% of Saab in 1990.

4.1.1 WHEN SAAB'S AIRCRAFTS STARTED TO CONQUER THE GROUND

“Saab didn't start as a car company. They grew out of the air space industry and the first cars that they built were designed by guys who were designing planes. It was something that was designed for a purpose, a certain thought or philosophy in mind...” (Wade, 2016)

Saab had an identity without compromise and did not follow short-term fashions in the way that say, Ford, VW, Datsun, did. [...] Saab had a unique brand image – a true and valuable 'halo' that was not upper class, yet not 'common' or working class; Saab was thus different from so many 'badges'.” (Cole, 2016)

The predecessor of Saab Automobile AB, a subsidiary to “Svenska Aeroplan Aktiebolaget” (SAAB), was established due to a need to differentiate the product line from aircrafts to include also other types of vehicles. The parent company was at the time going through difficulties, being in the aircraft industry, due to the end of the Second World War, and thus a dramatic decrease of purchasing orders of airplanes for combat purposes (Olson, 1988). Ragnar Wahrgren, the CEO of Saab at that time, decided to initiate a project of building cars in order to utilize the capacity of the factory in Trollhättan, Sweden, at the same time as the company's

knowledge in aerodynamics could be exploited in order to make cars with a 50% higher speed than the DKW (Dampf-Kraft-Wagen) which was highly successful before the war. Therefore, a decision to invest SEK 200.000 for the project to be launched was taken (ibid).

The year after, on the 10th of June 1947, Saab proudly introduced a prototype of an automobile named 92002 to the people of Sweden. It was based on the 92001, called the “UrSaab”, which was not witnessed by the public, and this aesthetically elegant and aerodynamically streamlined car design made by Sixten Sason would for three decades characterize the entire car production at Saab (Hökerberg, 1992). The two concept cars, together with a third, 92003, covered 280.000 kilometers of test driving in tough terrain, proving they were suitable for both insufficient roads and the challenging Swedish weather conditions (ibid). The legendary designer Sixten Sason was highly skilled and driven by an aerodynamic logic. He was able to embody and reinvent the aircraft design spirit also in Saab cars (Cole, 2012). Another key figure behind the early development of cars within Saab was Gunnar Ljungström due to his engineering knowledge derived from the aircrafts, applied in the automotive field. He was the person behind the decision of having front engine and front-wheel drive in Saab cars, and his strong influence can be found in the advanced aerodynamics and safety features inherited from his aircraft experience. All these elements are recurrent in the Saab DNA (ibid).

Being greeted extremely positively by the public, Saab started mass producing the model Saab 92, a Sixten Sason designed car with “perfect lines” and absolute elegance based on aerodynamic aircraft principles (ibid) equipped with a 25 HP engine in December 1949 (Olson, 1988). The success was immediate and thousands of people signed up through a waiting list for pre-orders of the car. At the same time, production became more efficient to meet the demand, and 1.246 almost identical Saab 92 cars left the Trollhättan factory in 1950 (ibid).

In the same year, two Saab 92's competed in the world's most prestigious race; the Monte Carlo rally. This was only two months after the start of the Saab 92 production but despite that, the two cars managed to finish in positions 55 and 69 respectively (ibid). Competing in rally would over the years prove to be a crucial part of the Saab success (Cole, 2016), firstly since they achieved recognition from an international audience, and secondly since product development was able to get instant and iterative feedback from the test division. In fact, this testing was successfully integrated into the mass production to the point where the rally versions with the years were in no need of having extra reinforced car bodies compared to the regular Saab cars (Olson, 1988). Later when Saab introduced its V4 engines, the development manager Rolf

Mellde, through racing activities, also discovered that the gearboxes were not suited for the new engine and were thus in need of being replaced (Hökerberg, 1992).

“Saab used rallying experience to define not just PR marketing, but also the actual cars – real development...” (Cole, 2016)

Not only did the factory workers increase the effectiveness due to better outputs, they also became increasingly efficient. In March 1954, the Trollhättan factory produced its 10.000th car, having an average production speed of one car per 27 minutes, four times as fast as in the beginning of the production (Olson, 1988).

In December 1955, Saab presented the new model Saab 93. Adding an extra cylinder and 8 HP to the engine, Saab was already in the development phase aiming at the US market. Due to amazing rally successes, including the victory in the Great American Mountain Rally in 1956, Saab successfully entered the US, having 1.410 (Hökerberg, 1992), or approximately 14% of all cars produced by the company delivered and sold in the US market (ibid).

The demand continued to increase along with the production pace, and Saab’s next models, the Saab 95 and the Saab 96, sold in over 110.000 and 547.000 units respectively. Also in the Saab 96, as in the 92, the aerodynamic design elements were evidentially leading the design process.

“The original UrSaab, and Saab 92-96 were [...] small, nimble, over-engineered in key areas, designed to appeal to a high quality niche market/buyer, [...] Saab was closer to Porsche than it was the Swedish de facto perception of Volvo-type Scandinavian design language and engineering ethos.” (Cole, 2016)

In a car with a Saab 96 chassis, the legendary Erik Carlsson “On the roof”, named after the famous Astrid Lindgren character after flipping with the car in a Swedish race in 1956 (Hökerberg, 1992), achieved greatness by winning the English RAC-rally three times in a row along with two consecutive victories in the Monte Carlo rally (Olson, 1988). These triumphs were crucial for Saab which in the 60’s increased their sales in Europe by 35% (Hökerberg, 1992). Due to this successful era, the factory in Trollhättan was expanded to meet the requirements of producing 20.000 cars annually in 1957. A few years later, it increased additionally in order to handle the production of 60.000 cars on a yearly basis (Hökerberg, 1992).

Saab's focus on safety and reliability started to be prominent in the production models. As an example, two diagonally split independent hydraulic braking systems were introduced to the world and mounted in the mass produced Saab 96 in 1963 (Cole, 2012). This advanced safety solution became widely spread in the world several years later (Hökerberg, 1992).

4.1.2 THE INTRODUCTION OF THE V4 - A NEW STARTING POINT

Saab had since inception mounted 2-stroke engines in their cars, but the car sales were declining in the middle of the 60's (Granlund, 2016) due to competition from the Swedish car manufacturer Volvo, along with English, German and Italian producers who were all mounting V4-engines which were more efficient. Between -64 and -66, Saab's total sales decreased from 29.000 to 19.000 cars (Hökerberg, 1992).

“Everybody was asking for a 4-stroke engine because the other manufacturers offered better performance, fuel consumption for example. Instead, Saab tried to improve the 2-stroke engine with triple carburetor and a lot of stuff. But it was only wrong what they did. The fuel consumption went up and people left the marketplace.” (Granlund, 2016)

Next to the Saab factory in Trollhättan, there were 6.000 2-stroke engine Saab cars which were impossible to sell, and the dealers also had substantial stocks of Saab 95's and 96's mounting the old engine. The management of Saab, however, had invested heavily in the 2-stroke engine, having built a factory producing gearboxes in Gothenburg, and they wanted that investment to pay off (Granlund, 2016).

The person behind the survival of Saab at that time, Rolf Mellde, started to work for Saab in 1946, and he was responsible for many elements which are part of the Saab DNA, such as efficiency, handling and high quality derived from advanced testing. He was also one of the founders of the rally department at the company, being considered as a very important past brand association for the Saab image (Cole, 2012). In order to save the company when they no longer could sell their 2-stroke engine cars, Mellde put together a group of seven people who secretly were planning to introduce V4-engines in Saab's. After purchasing five V4-engines from Ford, Per Gillbrand and Olle Granlund started testing and fitting them into prototypes. The implementation was a success, and consequently, Saab purchased 430.000 Ford V4-engines over a thirteen-year period (Granlund, 2016).

Following the successes in motorsport, Saab launched their Sonett II in 1964 (Hökerberg, 1992). It was a sports car derived from the Sonnet I, a racing track car produced in 1956, aimed for the mass market. Compared to its predecessors though, the sales were not equally impressive, only little over 10.000 cars were sold (ibid). Consequently, Saab discontinued the production of this model in 1974 (ibid).

In May 1968, Saab partnered up with Finnish state owned Valmet and created a joint venture called Oy Saab-Valmet AB, and Wallenberg sealed this deal in competition with e.g. Volvo and Renault through his good relationship with the current president of Finland, Urho Kekkonen (ibid). They built a factory in Nystad which was finalized in 1969, and within the agreement it was decided that at least 28.6% of all the future Saab passenger car production should take place in Finland (ibid). With this deal, Saab became more widespread in Finland, increasing their market share from 1% to 12%, and they strengthened their position of being a Scandinavian car (ibid).

In the same year, Saab presented the wholly new Saab 99 designed by Sixten Sason's successor Björn Envall (Cole, 2012) which followed the design tradition set by his predecessor. This new model was an attempt to overcome a higher level of competition through developing a car which would appeal to a broad segment of the market. The 99 was the result of 400.000 engineering hours, and for one full year it was tested by both Saab employees and a limited amount of selected customers who had an obligation to report back important feedback to the company. The public release in 1968 led to an instant success on the market, and during the first year, almost 20.000 Saab 99's were sold only in Sweden (Hökerberg, 1992). However, the car had some drawbacks, for example with the steering, due to the sporty characteristics of the car;

“The steering was in the beginning too stiff and so on, because it “shall be so.”
(Håkansson, 2016)

4.1.3 MERGER WITH SCANIA - A JOINT R&D EFFORT

“Scania was supposed to be the best in the world when it came to platforms. [...] They are very famous for this within the truck business.” (Granlund, 2016)

On the 20th of December 1968, Swedish media released the big news that two of the largest companies in Sweden at that time, Saab and Scania-Vabis, another Wallenberg company

operating in the truck and bus market with an expertise in engine development, merged (Olson, 1988). The main reason for the merger was, according to the annual reports from the two entities, that together they could more effectively allocate and utilize their respective resources connected to R&D, production and export. In the following year, the merger was made official, thus Saab-Scania was born. The newly formed Saab-Scania structurally divided up the company in 1972, making Saab passenger cars one division and Scania trucks another (Hökerberg, 1992).

As an effect of these shared R&D efforts, the development of in-house Saab engines started in 1968. Saab used a Ricardo/Triumph engine until 1974, while in parallel fitting the Saab 99 with their own engines produced in Södertälje, starting to be mounted in 1972 (Granlund, 2016; Håkansson, 2016).

At that time, in the early half of the 70's, the oil crisis hit the car industry world-wide with a four times increase of the price per barrel in approximately two months. The Swedish car manufacturers, Saab included, however did not experience a large decrease due to governmental interference. In 1975, Saab sold 91.000 cars and in 1976, 96.000 (Hökerberg, 1992).

In the end of the 70's, Pehr G. Gyllenhammar, CEO of Volvo, and Markus Wallenberg were discussing a potential merger between Volvo and Saab (Hökerberg, 1992). However;

“For Saab, Volvo has always been sort of the common enemy to unite against. I think that the timing has never been good for both companies [to merge] and I think that culturally, they have pushed each other apart.” (Nordström, 2016)

This rivalry between Saab and Volvo could easily be identified also in later years in several advertising campaigns. *“To crash with a Volvo is extremely safe. If you're sitting in a Saab”* is one example of how Saab referred to its biggest competitor in their commercials (Aničić, 2010).

During this era, Saab was not only innovative and engineering based when it came to development of the actual cars per se. They were also performing very sophisticated testing of their vehicles due to safety reasons. One example of this is the Saab introduced “elk-test” in the 1970's (Håkansson, 2016). In 1978, a customer oriented innovation driven by Saab was presented, namely a “cabin ventilation air filter” which later on has been widely used in many different competing firms' cars (Cole, 2012). In the same year, Saab developed, due to a relationship between Wallenberg and Agnelli (ibid), a strategic alliance with Fiat with the goal

of co-developing the Lancia Delta-Saab 600, a model that later became awarded “the car of the year” when released in 1980 (Olson, 1988).

4.1.4 THE TURBO GENERATION

“Saab’s asset was its design and engineering genius [...] Saab offered new and better standards than the average car (Ford/Fiat/Renault/Toyota, etc). In the 1960s and 1970s, most car makers gave customers the least that they could get away with. Saab gave the customer 'more' in terms of design, safety innovations, handling, fittings. Just compare Saab 99 with other cars of 1970 - Saab highly advanced VW, Ford, Fiat, Austin, Triumph, Renault... The 99 and the first generation 900 did not 'fit' into a preexisting market niche – they created their own subset within such market sectors” (Cole, 2016)

“The Saab people wanted Saab characteristics which means maximum turbo, low fuel consumption when you are running around slowly, but when you need the power you should have it all.” (Anulf, 2016a)

“They had a golden period through the 80's. They had the 900 turbo which did really well, then they had the 900 convertible which did super well and then the 9000. And those cars all sort of built on what came before them. But they just didn't make enough to continue investing and they didn't sell enough to do that.” (Wade, 2016)

The most important innovation brought to the market by Saab was the application of the first reliable variable-boost turbocharger for mass-produced vehicles, equipped with a wastegate valve which was an innovation proving to be the key factor of success for Saab’s application of the turbo-compressor (Granlund, 2016). In fact, the reasons behind the reliability can be traced to the application of this wastegate valve (Hökerberg, 1992). The project behind the turbo was carried out by the “project champions” Per Gillbrand, also known as “Mr. Turbo”, together with an experienced team of engineers; the iconic Rolf Mellde; a turbo diesel expert from Scania named Bengt Gadefelt; Geoffrey Kershaw, a former Rolls-Royce apprentice, also with a background in Scania, and; the highly experienced Josef Eklund (Cole, 2001).

In the merger partner Scania, the turbo technology was applied since the early seventies, for example in a 14 liter V8 turbo engine which provided one of the best outcomes in the European truck market (Se.scania.com, 2016). The engineers of Saab lobbied the management of the company to apply the turbo technology instead of going with a V8 engine to enhance the power of the cars, which was the original plan (Cole, 2001).

At the time, a decision that would influence the future life of the company was taken. Historically, as with the application of the turbo, the engineering department was usually very strong in the decision making process (Håkansson, 2016). The “go” decision was however taken by the head of Saab, Sten Wennlo, after a late night test of a Saab 99 prototype (Cole, 2001). The performance of the car was not comparable to any previous model.

“The management tested the car and just said... “Okay!” It was so quick.”
(Granlund, 2016)

Before the application of the turbo, Saab was, as previously stated, looking at increasing the performance of the engine by developing a naturally aspirated V8 (Cole, 2001). However, Saab’s engineers realized that keeping a four-cylinder engine mounted with a turbo could reach a similar level of power (ibid). Thus, they developed the new four-cylinder turbo engine, changing the gasket, the head mounting and adjusting the positioning of the gearbox and steering system in order to increase the cooling (ibid).

The history of the turbo

The comprehensive history of the turbo, developed by Ciarnella (2007), can be tracked far outside Saab, all the way back to 1905 when the engineer Alfred Büchi patented recycling pressure technologies, and in 1910 a 2-stroke turbo-compressed engine was developed by the airplane producer Murray-Willat. The application of turbo-compression grew in the aeronautical industry and the first demonstration of increased efficiency derived from applying turbo technology was done by Dr. Sanford Moss at General Electrics, proving that the turbo power was not affected by the lower density of the air at higher altitudes (ibid). In 1925, two German diesel engine boats applied the turbo, demonstrating a technology knowledge spillover to the nautical industry, and in the 30’s, turbo compression was widely used not only in the nautical industry but also for trains (ibid). In 1936, the past and current leader in the field,

Garrett corporation, was established, and after the second world war, material developments and the evolution of the technology behind the turbo, Volvo, Scania and Cummins started implementing turbo-compression, provided by Elliot and Eberspracher in their trucks in the 50's. Eberspracher is today located in Trollhättan (ibid).

The turbo technology entered the automotive industry in 1952 when Cummins produced the first racing car with the technology applied. The first street-legal car using turbo was developed by General Motors and mounted in two models; Oldsmobile's Jetfire and Chevrolet's Corvair Monza. An adequate level of reliability was however not present, and the lack of safety connected to the attempt led to an unsuccessful outcome (ibid).

Also BMW 2002 in 1973, Porsche 911 Turbo in 1974 and Buick Regal in 1978 were regular gasoline engine cars mounting a turbo charger. Mercedes-Benz launched the first turbo diesel car on the North-American market in 1978, meeting the strict US- and Canada consumption regulations (ibid).

Although many others car manufacturers had attempted, in 1978 Saab presented the 99 Turbo, the first turbo-compressed mass-produced car focused on low-consumption, usability and sportiness at the Frankfurt auto show (Hökerberg, 1992).

"It [the 99 turbo] was just a really good looking, well designed, extremely comfortable car... You had high-end performance cars which were high "revving" and all those sort of things, but nothing delivering that sort of rush that Saab 99 Turbo delivered in the late 70's..." (Wade, 2016)

Saab was, especially with the turbo modification, able to compete in rally without many modifications (Olson, 1988), and Stig Blomqvist did in 1979 win the Swedish Rally competition in a Saab 99 Turbo, the first car winning a race mounting the turbo technology (Cole, 2012). This however, turned out to be one of the last rally events Saab competed in at that level. Saab quit competing in rally in 1980 since the new rules from that year allowed also specially developed racing cars to participate. The effect of these changes in the regulations was that Saab could not keep up with the best if participating with standard passenger cars as had been the R&D rationale for the company for competing in rally (Hökerberg, 1992). Within the same period, the iconic Rolf Mellde left the company to seek out for new engineering opportunities at Volvo (Cole, 2012).

“When it was just about the cars and little money, they were winning. But when it started to become big money, huge modifications and big teams and all that, they did not have the resources...” (Wade, 2016)

Another driver of the decision to quit competing was that Saab at the time re-segmented the market, targeting a more luxurious segment, and participating in rally did not fit with this new direction (Granlund, 2016).

“The decision was not engineer driven but came from the commercial side, saying that we will not be in rally, it was not so clean, we shall have a more sophisticated car.” (Granlund, 2016)

As a step of entering this luxury segment, The Saab 900 was released in 1978 and started mounting a turbo engine in 1979. The car became an instant success, and has been a source of much of the love for the Saab brand;

“The Saab 92-96 were unique – they set a new design format. The 99 and the 900 did the same in a market crowded with 'average' thinking. [...] However, when Saab went upmarket with the 900, 9000 and later the 9-5, it forgot its 'other' customers and lost many sales and profits” (Cole, 2016)

Saab expressed clear interest in developing more high-end cars, but some important features were not delivered to the customers due to engineering decisions. An example of this logic can be tracked in a decision not to include a cup holder in the specifications for cars sold on the US market.

“We decided in the technician side but it was not so good for the customer. One simple thing is the cup holder; it is one of the most important parts in the US, there should be at least one in the dashboard and one in the back. And we didn't understand this. You can apply this on other things too.” (Granlund, 2016)

In the 80's, Saab was an avant-garde producer that introduced class-leading innovations such as the Automatic Performance Control (APC). Thanks to this innovation, it was for example possible to measure “engine knocking” using ionization sensors (Håkansson, 2016). Knocking was causing huge issues for engines at that time, and Saab's solution was creating a big interest and awareness around its innovative spirit, also amongst other car manufacturers (Granlund, 2016).

“I think that we had a very strong technical department [...] At the Frankfurt Motor Show, some Italian gentlemen came to me, they were from Ferrari, and asked: - How do you solve the knocking problem in your engine?” (Håkansson, 2016)

This invention was followed by a “blind spot” solution with a split side mirror, asbestos free brake pads and a 16-valves turbocharged engine (Cole, 2012). Thanks to these high quality innovations and an unconventional style, the Saab cars were representing a proper everyday sports car, not sacrificing the main usability of a family automobile. With these unmistakable attributes, turbocharged Saab cars were in 1984 produced in more than 100.000 units, thus being the largest manufacturer of cars equipped with this technology (Hökerberg, 1992). In 1984, Saab also launched the low-price model 90, which was a model mounting, aesthetically speaking, a Saab 99 front and a Saab 900 rear. The car was produced in approximately 25.000 units, and the production of the model stopped in 1987 (Cole, 2001).

4.1.5 THE NEW EXECUTIVE CAR – “TIPO QUATTRO”

The focus on luxury cars enhanced with the release of the more spacious Saab 9000 in 1984 (Olson, 1988). This model was *“proof that a generic car design could be properly and acceptably ‘Saabised’”* (Cole, 2016), and it was based on a successful joint part sharing effort together with Lancia Thema, Alfa Romeo 164, and Fiat Croma. The doors were e.g. exactly the same as Lancia’s (Anulf, 2016a). The main goal for this partnership was to lower the R&D costs and reach economy of scale by spreading the expenditures on a bigger number of cars. An additional reason for this strategic alliance is that the Fiat Group member Lancia and Saab shared a similar vision for their future models (Cole, 2012). Despite this, the collaboration between the two engineering departments was characterized by some friction;

“It could be difficult to cooperate with other manufacturers, because they have a different philosophy” (Granlund, 2016)

In Lancia and Saab’s collaboration, not everything was agreed upon. Saab’s engineers pushed for example for a stiff rear axle which was supported also by the engineers at Lancia. The management of Lancia, however, considered this solution not to be commercially valuable. Thus, Lancia put an independent rear axle solution in their cars while Saab, being very engineer driven, used the stiff one (Granlund, 2016).

Despite some initial quality issues with the newly released Saab 9000, the car was still perceived as a luxurious one. In Australia for example, Saab was highly appreciated, being perceived as a high-end European brand;

“It’s got a beautiful luxurious interior. It’s got climate control where you can actually set the temperature that you want and all this. Back then, that sort of thing was revolutionary.” (Wade, 2016)

In order to test the extreme reliability of the car, Granlund initiated a project in 1986 where three Saab 9000’s took part in “The long run” in Talladega Motor Speedway. These 100% stock cars set several world records, running continuously at full throttle for twenty days, covering 100.000 kilometers at an average speed of 132.5 mph (Hökerberg, 1992) corresponding to approximately 213 km/h. Thanks to this success, American car manufacturers started to take notice in the small Scandinavian car manufacturer (Granlund, 2016). In the same year, Saab also released one of the most recognizable Saab cars ever produced, namely the Saab 900 convertible (Cole, 2011).

The golden 80’s

The launch of the turbo led Saab to a huge and much-needed commercial success, having suffered losses of around SEK 200 million in 1977 and 1978. The Swedish currency was also depreciated twice in the beginning of the 80’s, and Saab’s sales rapidly increased in the US market, leading to profitability during the years 1982-1987 with sales increasing from 74.000 cars in 1981 to 131.000 in 1987. At one point, almost 50% of all cars sold outside Sweden were mounted with a turbo charged engine (Hökerberg, 1992). In US alone, Saab increased its sales from 18.463 units in 1982 to 48.250 units in 1986, which was the all-time high for Saab on the American market (Jacobs, 2015). This success led to Saab being the fastest growing brand in the US at the time (Sapienza, 2016). However, the dollar which was extremely over-valued (\$1 cost around SEK 10 in 1985) was depreciated, and this became a huge drawback for Saab. For two consecutive years, the sales dropped, going down to 38.490 units sold in the US in 1988 (Jacobs, 2015).

During this era, fierce competition characterized the automotive industry. Other automotive players were differentiating their product lines, entering new segments. As an example, BMW released their highly successful 3-series;

“BMW's reputation after that car just went through the roof. And Saab 900 was competing with those early 3-series cars. When M3 came along it set BMW on a path that every magazine was just dying to drive the next 3-series. It was a huge seller. For 20 years, from the late 80's to 2010, BMW was everybody's darling. They would fall over themselves to drive the new BMW.” (Wade, 2016)

In 1989, Saab's passenger car division made a loss of SEK 2.2 billion (Hökerberg, 1992). One reason for the bad financial performance in the late 80's, apart from the decreased sales, was that the company bought and re-tooled a facility in Malmö in order to extend the production capacity (Jacobs, 2015).

Even though the financial performance was poor and the models were not newly developed, Saab was noticed by several global car manufacturers as a potential acquisition; Mazda, turned down by the board of Saab; Ford, who in the end acquired British Jaguar at a value of GBP 1.6 billion and; Fiat, who got their bid for a joint holding company - where Fiat would own up to 70% of Saab's passenger cars - rejected, all tried to acquire Saab (Hökerberg, 1992).

4.2 GENERAL MOTORS - A NEW PARTNER FOR THE FUTURE

In this section, Saab enters into a new era of its corporate life, being acquired by the largest car manufacturer in the world, GM. The reader will be able to identify a discontinuity in Saab's development approach, emphasizing efficiency and cost cuttings rather than intrapreneurial spirit and innovation. Due to platform sharing activities with the GM Europe company Opel, Saab became a leaner manufacturer, however sacrificing parts of the original “Saabised” free-thinking logic. Platform sharing is by Olson (2008) defined as; *“development method where various products and the brands that are attached to them share the same architecture, components, technologies, and service procedures.”* (pp. 244). This section will stretch until February 2009.

4.2.1 GM'S INITIAL ACQUISITION

“Saab had their ideas how things should be done and it was mainly focused around the quality of the car, while [the new management] had shareholders to answer to, and they wanted things done at a price.” (Wade, 2016)

“They had a lot money and different parts, so then it's really fun. But when we came closer to production start, then it's not so funny [...] Saab had started to apply a development process with gates. And then GM had their own, and we were forced to use theirs. But there weren't so big differences between them, some smaller things...” (Granlund, 2016)

“Post GM, they [Saab] became designed more for the wider community. But to some people, and me to a certain extent, they became less identifiable and less likeable as a Saab.” (Wade, 2016)

“The problem is that GM has had so many different plans for Saab. At some times, it seemed that everything was supposed to be produced in Rüsselsheim, and in some periods it seemed like everything should be produced in Trollhättan, for Opel to build cars there as well.” (Nordström, 2016)

After only three weeks of due diligence, GM acquired 50% of Saab on the 15th of March 1990 (Jacobs, 2015), representing the first foreign investment in Saab. The new entity, reincorporated as Saab Automobile AB (Hökerberg, 1992), was an intention for GM to acquire a European luxury car brand, such as Ford did with Jaguar. Thanks to this deal, GM also got access to three factories with over-capacity including a top modern factory for engines, and according to GM's spokesman Ron Theis, GM intended to utilize part sharing with Saab for the European market (Mateja, 1989). For Saab, being acquired by GM provided an opportunity to access a global market with an enhanced supply chain (Oliver and Holweg, 2011). As a result, Saab was controlled by GM and the Wallenberg owned Investor AB holding 50% of the shares each (Hökerberg, 1992). Wallenberg's disinvestment was in correspondence with the ongoing M&A trend in the automotive industry, emerging due to bigger actors wanting to differentiate their product portfolio with brands covering segments not yet exploited. Additionally, smaller actors were not able to sustain the intensely increased costs connected to development of new models, costs which could not be spread over a large number of units produced (Štrach and Everett, 2006).

“The Wallenberg family saw before that R&D expenditures were going up. [...] By then, a new car model was a 6-7 billion SEK investment. Additionally, we needed to develop a new factory which is a huge investment. We needed to invest in a new sales organization and those huge investments were beyond the power of the Wallenberg’s. That is why GM was brought in on a 50/50 base...” (Anulf, 2016b)

The initial GM investment was \$600 million, with an option to acquire the remaining 50% ten years later (Zephyr, 2016). GM was now for the first time controlling a European luxury brand, due to the fact that their German giant Opel never achieved a luxury car status. They also wanted to keep Saab as a Swedish entity, and Saab’s division was the only GM controlled company which reported to their own board and not directly to GM. GM also pushed for cheaper supply of goods from Saab’s suppliers, and they demanded a yearly 2% decrease of their prices if they were to remain within the Saab network (Hökerberg, 1992).

Up until then, Saab’s passenger cars business was never economically viable, and they were only profitable for a few years after the introduction of the turbo in the 80’s. Instead, the Scania truck division, with their strong finances and good access to liquidity, backed the passenger car production and made it possible for the Saab-Scania group to effectively hide its negative financial outcome (ibid).

“Saab's costs to make cars were very, very high before GM. This was Saab's own fault and you should not overlook this. We can say that many internal Saab factors created these high costs. [...] The cars were very good, but the costs and time to build were very high – much higher than competing manufacturers” (Cole, 2016)

David Herman was handpicked by the CEO of GM Europe, Bob Eaton, and became CEO of Saab. He decided to move the headquarters from Nyköping to Trollhättan as a solution for the previous lack of interaction between the management and the employees of Saab (Hökerberg, 1992). He also strengthened the engineering and innovation culture within the firm, formulating a vision emphasizing these attributes and the pride of being a Saab engineer. When the year of 1990 was summarized, Saab had made a loss of SEK 4.6 billion (ibid).

One of the objectives for GM was to increase the efficiency of the production in Trollhättan. Therefore, they shut down the recently opened Malmö factory and disinvested in the factory in Valmet (ibid). Part of this efficiency and cost savings plans was to decrease the amount of time for every car built from 57 to 40 hours (Nytimes.com, 1992). This was of fundamental

importance for the GM group, which in 1991 had a negative result of, in Swedish currency, approximately SEK 27 billion (ibid). Another part of the organizational changes in the beginning of Saab's interaction with GM was a decrease of the workforce. In the beginning of 1992, the total number of employees had decreased by 30%, from around 14.000 people two years earlier to 9.860 (Hökerberg, 1992).

Following the trend from the late 80's, Saab's sales in the US continued to drop until 1993, amassing only 18.784 units, equivalent to just over one third of the sales of the best US-years seven years earlier (Jacobs, 2015). During the following six years, however, Saab grew their sales in the US once again, selling 35.541 cars in 1999 (ibid), amounting to approximately one third of all sales for Saab (Saab Automobile AB, 2000). Despite some fundamental changes focused on increasing efficiency, Saab employees were positive towards the introduction of GM in the company, meaning that the relationship and contact initially was perceived as an opportunity for growth;

"I thought we had a very good contact with GM and Opel." (Granlund, 2016)

At the time, Saab developed a new engine management system based on a 32-bit computer called Trionic (Saabhistory.com, 2009). They also launched a light pressure turbo (Saabmuseum.com, 2016a), an application of the turbo technology, with a lower compression rate for an increased comfort. Additionally, Saab's air conditioning was for the first time free of the environmentally hazardous gas chloroflourocarbon (CFC) (Cole, 2012). Saab furthermore introduced patented technologies on "anti-fog and ice" side mirrors showing continuity with their precedent focus on safety (Patents.justia.com, 2016). In 1993, the "Sensonic clutch", the "night panel" and the "Safeseat" rear passenger protection were equipped in the new models, and in 1994 Saab upgraded the Trionic system with the new version called "T5.5" (Cole, 2012). See appendix 3 for a full innovation list.

4.2.2 PART SHARING WITH OPEL – THE FIRST ATTEMPT

The second generation Saab 900 was launched in 1994. It was based on the GM2900 platform which Saab shared with Opel Vectra and other US based GM brands such as Pontiac and Saturn (Jacobs, 2015). Before GM's intervention, the old 900 demanded 110 man hours allocated to build each car. However, as an effect of the efficiency efforts from the new owner, the second generation demanded only 30 (Saabmuseum.com, 2016c). The new 900 was equipped with an asymmetrically turbocharged V6 engine option assembled by Opel (Autoevolution, 2016), and

it was presented at the Motor Show in Frankfurt (Cole, 2012). One year later, also a convertible version of the second generation 900 was released. The 900, however, had reliability issues and a low level of refinement, making it non-competitive in the luxury segment (Sapienza, 2016) even though it was intended to directly compete with the BMW 3-series (Jacobs, 2015).

“When the new 900 from GM came in early 1994, even Erik Carlsson could not make it feel – steer/brake like a true Saab. The body felt too light/soft as well.”
(Cole, 2016a)

In 1996, another safety device named as “Saab Active Head Restraint” (SAHR) was included in Saab’s models with the aim of reducing the risk of whiplash injuries. The discovery of this innovation was being done when a few Saab engineers visited GM’s facilities in Detroit;

“They had these head restraints, and it was developed and crash tested and everything. And it couldn't get to top management... But we saw the possibilities.”
(Granlund, 2016)

In other GM brands, this invention was never implemented. The Saab engineers took this idea home to Sweden and created SAHR out of it.

“[GM] had many other ideas which were very interesting, but nothing was implemented. It just got to the bin. It cost too much.” (Granlund, 2016)

Furthermore, in the same year Saab attempted the endurance test in Talladega again, this time with six Saab 900’s equipped with different powertrains; a 2.0 turbo; 2.0 injection, and; a 2.5 V6. Again, the company managed to set several speed records even with the new Opel derived engines (Saabmuseum.com, 2016b).

In 1997, Saab launched the replacement for the model 9000, called the 9-5, which was based on an Opel Vectra floorpan, adding some Saab specific characteristics in safety, aerodynamics and performance (Cole, 2012). Before GM’s entrance, the plan was to cooperate with Fiat, developing the 9-5 based on Alfa Romeo 164. GM, however, discontinued Saab and Fiat’s cooperation (ibid). Due to technical reasons and quality issues, the release of the 9-5 was delayed one year. This was a decision taken by Lars Olsson, technical director, in order to assure that the overall quality was adequate for the target segment. Thanks to this decision, the 9-5 turned out to win the JD Power’s award for luxury cars (Granlund, 2016).

“He delayed the release one year. He said, “You cannot let that car out, it's suicide!” (Anulf, 2016a)

When they launched the 9-5, Saab simultaneously launched the Saab 9-3 which was the successor of the 900, embodying over 1.000 changes with the goal of creating the feel of a true Saab (Cole, 2012). The 9-3 shared 35% of the components with its cousin Opel Vectra, deriving royalty payments to GM, and the engineers of Saab were not entirely happy with the tight collaboration with Opel (Granlund, 2016). Instead, they thought that they could develop superior parts themselves, and one example of this was the air conditioning system. Saab was told by GM Europe to use the Opel-developed system in order to save on costs (ibid). In order to fight this decision, Saab engineers went to the Opel factory in Rüsselsheim and demonstrated that Saab's own system was superior to the Opel developed one. This demonstration was, according to Granlund (2016), necessary due to the fact that the Saab car had a bigger inner dimension than the Vectra, and thus it was in need of a more effective air conditioning system. This demonstration was a way of getting through to the top management, considering the orders to use Opel parts.

“After a lot of discussion they [GM Europe] changed their minds.” (Granlund, 2016)

A lack of synergies can be tracked during the platform development phase which Opel was responsible for. Of course, Saab still had a saying since they had to approve the parts they were to work with. Saab's engineers, for example, realized that the Opel wheel bearings were not strong enough to sustain the heavier weight of Saab cars (Granlund, 2016). Thus, a lack of collaboration can be identified.

“I could imagine also the executives from Opel would been very annoyed about this junior cousin from Sweden coming in and telling them what to do.” (Wade, 2016)

The extensive part sharing between Saab and Opel also created some dissatisfaction and confusion regarding Saab's brand and identity;

“New GM cars were Opel/Vauxhall, GM designs. Saab's old men worked very hard to 'Saabise' them [...] Opel GM was basic food. Saab was haute cuisine.” (Cole, 2016)

This collaboration was not always very smooth on an organizational level, and according to Granlund (2016), Saab could at times find cheaper and better parts than the GM imposed ones. Not having the possibility to use these externally acquired parts was in his opinion a big loss for Saab, considering that they had to pay royalties to Opel. An Opel rear axle for example

implied a \$5 royalty payment. Saab also had to pay royalties of SEK 4.000 for every car equipped with a GM L850 engine, in Saab cars named as B207 (Granlund, 2016).

The perception of having superior parts and engineering knowledge was strong in the culture of Saab, they didn't e.g. collaborate with universities, such as the well-known Chalmers University of Technology in Gothenburg, in their innovation and development (Wennberg, 2016).

“When I came to Saab, the feeling was; we do it better, we don't need any help.”
(Håkansson, 2016)

4.2.3 SAAB - A BRAND TO PRESERVE

“We made premium cars focused on safety. Unfortunately, we were shadowed by Volvo. If you ask an American professor about a safe car, he says; “Volvo”. [...] They were smarter in getting the reputation.” (Anulf, 2016b)

“When Saab went upmarket, however good the original Saab 900 was, it forgot about the people who wanted a modern version of the 92-96.” (Cole, 2016)

This era represents a change in the design of Saab cars. Especially the model 9-5 was a car competing in the luxury sedan segment. They did not forget their innovative heritage though, as could be noticed in several new technologies such as the “electronic brake-force distribution”, “ventilated front seats” and the safety system “ComSense” (Patents.justia.com, 2016). However, this era was also characterized by Saab being constrained by having to cope with a high degree of part sharing and other efficiency increasing activities (Johnson, 2010). Due to GM's efforts, Saab's operational costs were cut by roughly a third, but the sales were pointing down, amounting only to around 90.000 cars worldwide in 1996 (ibid).

From the initial acquisition, GM had up until 1996 invested approximately \$1 billion in Saab. This was, however, not enough in order to make the company grow. Wallenberg's Investor AB invested a further \$262 million (Strom, 1996) in a joint effort to grow the sales volume by more than 50% over the five subsequent years (Ipsen, 1996). This shows a distinct change in GM's strategy with Saab, switching from cost savings and efficiency into a growth strategy underlying Saab's heritage, as could be understood from a statement from Louis Hughes, president of GM International and chairman of Saab Automobile; *“We haven't invested a billion dollars to close Saab; we have invested a billion dollars to grow Saab”* (Strom, 1996).

Consequently, GM decided to let Saab work more freely, in correspondence with an understanding of the importance of letting Saab preserve and develop their brand (Johnson, 2010).

During this period, Investor AB expressed a clear appreciation towards GM's interventions in Saab. The president of Investor, Claes Dahlbäck described GM as having been "*a terrific partner which really brought a lot to the table that has gotten Saab into much better shape.*" (Strom, 1996), although not being satisfied with the financial performance, which he mainly explains with low volumes.

The relationship between Saab and GM showed that on one hand, GM increased the efficiency of the daughter company (ibid), teaching them economy of scale and part sharing practices (Cole, 2012). On the other hand, they in return benefited from Saab's technological proficiency (Strom, 1996), applying innovations such as emissions control systems and Saab's turbo technology in other GM brands. Furthermore, they learned aerodynamics and "*tweaked engine behavior*" (Cole, 2012, pp. 218). Keith Butler-Wheelhouse, CEO at Saab, said; "*We're small, but we have a great level of technical skill,*" regarding this mutually beneficial relationship (Strom, 1996).

In this era, Saab reinforced its positioning in the premium market where, for example, the German players Mercedes and BMW were dominating with the models BMW 5-series and Mercedes E-class. However, these producers were in turn differentiating their offerings with smaller, less expensive models with the aim of increasing volumes with extended sales (ibid). Therefore, Saab had no choice; they had to aim high in order not to be stuck in the middle between premium and mainstream (ibid).

In the subsequent years, Saab's sales were increasing, reaching some of the best years ever for the company in terms of number of units sold. In 1999, 131.240 cars were sold in total (Saab Automobile AB, 2000).

4.2.4 GENERAL MOTORS' FULL ACQUISITION

In January 2000, recovering from disastrous sales in the middle of the 90's, GM decided to utilize their option to acquire the remaining 50% of Saab from Investor AB (Zephyr, 2016). The price for these shares was never disclosed, but thought to be around \$125 million (Sapienza, 2016; Johnson, 2010), considerably lower than between \$400 and \$735 million, which was

considered as the value of 50% of Saab in 1996 (Jacobs, 2015). GM's chairman, John F. Smith Jr., stated in connection to the acquisition that GM Europe would intensify its efforts in reducing costs further due to an increased competition on prices (White, 2000). The opinion given from Markus Wallenberg regarding the integration of Saab into GM Europe was that it was a well needed opportunity to grasp for a further expansion of the company (ibid). Enforcing this statement, Investor AB's spokesman Nils-Ingvar Lundin, stated that "*Saab Automobile is too small on its own*" (ibid).

After the complete acquisition of the company, Saab's sales figures continued to grow in 2000, reaching 132.291 units sold (Saab Automobile AB, 2001). Additionally, Saab introduced the SVC, a Saab variable compression engine, experimentally built for the model 9-5 (Patents.justia.com, 2016).

Nevertheless, the company was in need of launching a replacement for the current 9-3, and the second generation of the model, based on the Epsilon 1 Platform co-engineered with Opel, was launched in 2003. Even though it was based on GM parts, it was heavily "Saabised" compared to the first generation version (Cole, 2012).

"The 9-3 was meant as sort of a step-in, that's why it's rather uncomfortable in the rear; it was never meant for 4 grown-ups. It was for two parents and two children, and it should be sporty. It should attract those regularly buying a BMW 300, which was our target group in Europe, and a similar group in America." (Anulf, 2016a)

The development was at this stage characterized with a high degree of freedom for Saab to customize cars in order to keep a brand identity and some peculiar characteristics of the past. This approach can be tracked in the development of the new 9-3 as being very engineering-orientated.

"The spirit was there all the time through the launch of the 9-3. These were the wonderful years; I don't think that in my career I've ever been living in such an environment. Every day was exciting." (Anulf, 2016b)

Although some criticism regarding the car in areas such as electronics and materials in the early models, the overall quality was increased (Cole, 2012). However, the development of the second generation Saab 9-3, included a high degree of customization, implying very high costs of several components.

They [GM] had an ambition to keep the bought value, anything bought from external, at an average for the 9-3 at about 85.000 SEK, it ended up with 105.000. And those 20.000 extra blew the business case” (Anulf, 2016a)

The expenditure issues can be tracked through a lack of cost control.

“They [GM] were not happy with the development of the 9-3, mainly due to the cost of components bought, that they got out of control. [...] More than 90% of the components had a different specification compared to Opel [...] these properties came from the entrepreneurship; you were allowed to go for the best solution. [...] There were mistakes. We were in some sense blind. And unfortunately, the main blindness was in costs...” (Anulf, 2016b)

Another issue was that the implemented modifications were very Saab specific, with GM in many cases not being able to capture the value of these improvements elsewhere.

“They spent so much money modifying this car in ways that other GM brands couldn’t use. It’s okay to modify if that modification could be shared everywhere else, but Saab modified it in a way that could only be done in the 9-3. [...] I think Saab historically had this mindset of “we will do what we think is right”. Which is why a lot of people loved them and why their owners hated them. Because it was expensive...” (Wade, 2016)

4.2.5 COST SAVINGS - THE “BEAN COUNTER” ERA

“The Saab designers tried to make GM Saabs, ‘feel’ like ‘real’ Saabs and again, spent too much money doing it. [...] the whole Saab ethos was diluted by accountants and fashion-led design.” (Cole, 2016)

“If someone of us would have said “isn’t that too expensive? Is it really customer value corresponding to the cost?” I think some of us would then have said “what a boring type, what are you doing here, you are not a good member of the team.” (Anulf, 2016b)

GM’s reaction for the expenditures going out of control was to increase the focus on cost reduction. In this situation, Lars Olsson, chief engineer and responsible for the development of the 9-3, decided to resign, and he was replaced by “bean counters” from GM.

“During the years of cost-savings, we got Bill Beaumont coming in after Lars Olsson, and Bill Beaumont was only about cost savings, cost savings.” (Anulf, 2016a)

According to Beaumont (2016), he was *“Brought in to analyze and correct significant structural cost problems at Saab Engineering, when departmental spending became out of line with the GM Europe business plans”*, and his entrance in the company affected the whole management of the organization. GM started an even more intense part sharing process in order to reach the goal of cost savings, as could be identified with the discontinuity of the engine production in Södertälje;

“We had our own engine factory in Södertälje, and made 2.3 liter engines up there at a very low cost. But then GM just claimed that “well, it's cheaper that we do it.” (Anulf, 2016a)

Following the plan, GM announced in 2004 a competition for the production of new models between Saab’s factory in Trollhättan and Opel’s in Rüsselsheim (Lavén and Bergström, 2015). In the same year, the Swedish government invested in infrastructure in order to support the automotive industry in Trollhättan (ibid). Even though Saab didn’t win the competition, GM decided to keep the production of cars in Sweden (ibid).

Between 2002 and 2005, Saab showed severely negative financial results even though sales were stable and close to reach its peak, which they did in 2006, selling 132.957 cars (Saab Automobile AB, 2003-2007). In order to save money on development costs but also attempting to widen the Saab brand, Saab introduced two badge-engineered models in 2005 (Anulf, 2016a). The director of GM had an idea that Saab had to widen the brand from an instep model for young people with the Saab 9-2X (ibid) based on a Subaru Impreza, and Saab 9-7X which was a twin of the Chevrolet Trailblazer (Nordström, 2014). However, these two models were considered as an additional shame for Saab’s reputation and heritage by the audience.

“Subaru-Saab was a true 'destruction' of the brand.” (Cole, 2016)

GM did not increase Saab’s market share with the models 9-2X and 9-7X, instead they represented a sales failure. With the model 9-2X, Saab sold only 10.324 cars before discontinuing the production in 2007, and with the 9-7X, Saab sold 20.460 units until 2009 (Saab Automobile AB, 2006-2010).

“When GM went in and took over more and more, especially after Saab got into problems in, let's say from 2006-2007, they started micro-managing, it was just

rough boring being there, and I was very close to leaving already then, but all the time I kept the hope up. "Once Saab recovered, GM will take their hands off us". But that never happened. But an owner like GM can definitely dampen or even kill entrepreneurship. [...] Everything became boring when he [Lars Olsson] wasn't around, with his vision and ambition in development." (Anulf, 2016a)

The new "bean counting" way of running Saab affected the atmosphere in the engineering department;

"Unfortunately, top skilled people left. They just thought "it's no fun working here". Some went to Volvo trucks, Volvo Cars, Scania, some down to Germany, so we lost a lot of competence due to this way of running the business." (Anulf, 2016b)

Thus, not only were GM dissatisfied with Saab's poor financial performance, but also the Saab employees were unhappy with GM's way of running the company in the middle of the 2000s;

"I got to know a few of the engineers and a few of the higher ranking employees, like technical directors, marketing directors, people like that. And many of them used to say; "we really want to get out of this GM situation. It's blocking us. It's stopping us. We are being thrown out of these projects. We can't be Saab anymore. We can't prove ourselves and we are stigmatized, so we are thinking of creating a management buyout from GM." (von Koenigsegg, 2016)

Understanding these financial constraints at Saab and the regional focus on heavy industry and car manufacturing, the Swedish government decided to approve the "Trollhättan package", a 5-years plan starting in 2007 with the goal of investing in R&D, education and infrastructure such as highways and railway connections (Lavén and Bergström, 2014).

Despite the critical situation, Saab kept its innovative spirit. In 2008 for example, they jointly developed a XWD (Four Wheel Drive) system equipped with an electronically controlled limited slip differential called eLSD together with the worldwide recognized traction developer Haldex (Noordeloos, 2008). This new development represents a major shift from the past where all Saab cars were front-wheel driven. The timing was however not excellent due to the established offerings from several competitors in this type of traction, such as Mercedes with their "4Matic" and BMW with their "X" models (ibid). Saab's CEO, Jan-Åke Jonsson, stated regarding this evolution that this shift should have taken place many years earlier, adding that maybe the stubbornness of Saab to offer only front-wheel drive cars stopped this new offering in the past (ibid).

4.3 SAAB ON SALE

In this section, the reader will be introduced to a major financial crisis within GM, and its effect on Saab. The story regarding how the preferred bidder, Koenigsegg Group AB, gained interest and eventually withdrew from the negotiations will also be carried out. Koenigsegg Group saw a huge opportunity in Saab and tried to revive the original, latent engineering capabilities of the company, complemented with a new, more intrapreneurial and less bureaucratic approach compared to GM. The section ends when Spyker enters the negotiations right after Koenigsegg Group dropped out.

4.3.1 CRISIS AT GENERAL MOTORS - KOENIGSEGG GROUP AS A NEW POTENTIAL OWNER

Due to the lack of profitability and the economy downtime during the end of 2008, GM announced in February 2009 their intention of selling or definitively closing Saab as part of their own huge financial issues (Hägglund, 2010). Sequentially, GM did in July 2009 go through a liquidation process in accordance with the section Section 363(b) of the Bankruptcy Code, affecting 235.000 employees (Bloomberg.com, 2016). As part of GM's financial trouble, they relied on the American government to provide them with monetary resources in order to survive. This funding however included some contingencies;

“The US government said that “if you want emergency loans, you will have to get rid of a couple of brands” and GM had a couple of brands that didn't really make any money.” (Nordström, 2016)

“I don't think GM cared about Saab too much. I think Saab was a stone in GM's shoe. They just wanted to get it out. They would have been quite happy to shut the company down 2009, early 2010, but it started to look like really bad PR for them. [...] So it would have just looked like their own harsh decision.” (Wade, 2016)

Due to a lack of financial support from GM, Saab went into reconstruction on the 20th of February 2009, while looking for an acquisition or an external investment (Hägglund, 2010). However, that investor was not to be found in the Swedish government. The Industry Minister of Sweden, Maud Olofsson, made a statement ruling out any possible national ownership of the company (ibid). In 2009, the Koenigsegg Group, composed by the Swedish entrepreneur

Christian von Koenigsegg, two of Koenigsegg's family members, Bård Eker, Augie K. Fabela, Melissa Schwartz and the American investor Mark Bishop, declared its intention to purchase Saab (ibid).

“We asked ourselves; “How can Saab be successful? Will we be successful by mimicking BMW, Audi, Volvo etc. trying to do what they are doing? For sure not, we are going to die. If we are going to leapfrog everyone, do something completely different, unique and tie into the craziness we are doing here, building an image, a following and a brand, is there a big risk of dying? Yes... Is there a small chance of succeeding? Yes!” So that’s what we are going to do. So that’s why we were heavily into this wild ride quite early on.” (von Koenigsegg, 2016)

After a visit at Saab's factory in Trollhättan, Christian von Koenigsegg realized that with some changes and improvements, Saab could be viable as a company;

“I asked them “how long time do you need to develop this and that? How many people do you need?”, and I was always very shocked of how many they needed and how much time they needed, and how much money they needed. And then I asked them “why?”. They said “we have always done it in this way, GM has this big manual of how to do it, best practice compared to everyone and we just follow that blindly”, and I thought “that’s probably a bad idea.” (von Koenigsegg, 2016)

At that time, GM was, as stated, in huge financial problems themselves, and the newly formed Koenigsegg Group AB spent a lot of resources also on activities to disconnect GM's intellectual property from the potential deal.

“We had 20 lawyers working, but after a while we had 80, because half of them were sitting on GM's side that we paid for just so they could help them carve out Saab.” (von Koenigsegg, 2016)

In the meanwhile, the Phoenix platform was developed as a GM independent platform based on old technologies derived from the second generation 9-3 development which were no longer proprietary for GM (von Koenigsegg, 2016). These were thus technologies which they would not have to pay GM for, and it ensured zero dependability in future developments.

The negotiations proceeded well even though the Swedish press was very skeptical about the deal, often misinterpreting Koenigsegg Group for Koenigsegg Automotive. Moreover, the Koenigsegg Group was still in need of financial support from the European Investment Bank

(EIB). In order to be provided a loan from EIB however, the group needed to raise at least 50% of the money for purchasing and sustaining Saab themselves, thus the Chinese company BAIC was taken onboard, displaying high interest in old Saab technologies.

“It sounded like small Koenigsegg from Ängelholm was looking to buy Saab but it was actually a group of successful international large scale entrepreneurs and BAIC – one of China’s largest car manufacturers - buying Saab, rather than Koenigsegg of Sweden.” (von Koenigsegg, 2016)

The Swedish government were to guarantee the EIB loan, but with time, they were demanding a decision making role on Saab’s future business, forcing Koenigsegg Group into a corner. Knowing the upcoming challenges of running Saab, together with time constraints, the group suddenly withdrew from the negotiations.

“That was how GM presented it, that we will get EIB as a part financier, and we told them that was an ingredient that had to be part of it and if you are not going to say yes or no in two weeks, we are not going to continue. [...] And then the board of Koenigsegg Group agreed; “Christian - you go out on national television and say that we are pulling out” (von Koenigsegg, 2016)

For people on the outside, the drop came as a huge surprise. The business plan developed by Koenigsegg Group was however dependent on a fairly quick production start in Trollhättan.

“In November, Koenigsegg Group said they couldn’t stay in this anymore, the factory had been at a standstill for too long and they couldn’t generate the cash flow quickly enough once they got the brand...” (Nordström, 2016)

BAIC did however go through with their initial intentions, and ended up acquiring the rights to use the technologies connected to the old Saab 9-3 and 9-5. This deal gave Saab a much needed cash injection of \$200 million (Hägglund, 2010).

“That was our going away gift to Saab. They were throwing it in the garbage, we packaged it as a part of our deal, but that was left hanging there and they knocked on the door and bought it for 1.5 billion SEK. That would not have happened unless we had stopped them [GM].” (von Koenigsegg, 2016)

4.4 THE SPYKER ERA - A NEW STARTING LANE

The Spyker era was a high pace decision making period characterized by the quest for turning Saab into a luxurious car manufacturer. A high degree of freedom helped Saab in regaining an intrapreneurial, innovative approach. However, due to a lack of financial resources and the difficulty in including new investors, the company went into bankruptcy in December 2011, the date also representing the end of this section.

4.4.1 SPYKER ACQUIRES SAAB

Following the collapse of the talks with Koenigsegg Group, GM held a press conference where they stated that Saab would be terminated in 2010 if it failed to secure a buyer before the end of 2009 (Hägglund, 2010). The opportunities to close an acquisition of Saab then looked almost impossible. Representatives from the Swedish government however kept on working for a deal to come true, and they continued negotiating with EIB, without changing their stand in whether the state should go in as an owner of Saab or not (ibid). Victor Muller, the CEO of Spyker, entered the discussions in the last minute. He said that he wanted to take over Koenigsegg Group's deal, looking for the agreement to be financed by his business associate Vladimir Antonov, a Russian investor that Muller met a few years earlier when they had the pit boxes next to each other when Spyker was competing in Formula One (Nordström 2016).

“He [Muller] went to Riga over the Christmas holidays. Antonov probably thought he would wait until after the new year’s, but Muller said “we cannot wait that long” so he had to go over during the Christmas holidays and they drew up a contract for financing.” (Nordstrom, 2016)

Only a few months of due diligences, performed by both the Swedish state which would go in with the guarantee for the EIB loan and by Spyker, lead to an acquisition of Saab on the 26th of January 2010, at the price of \$74 million in cash and \$326 million worth of preferred stocks (Hägglund, 2010). The loan from EIB of EUR 400 million was approved in early February, and the amount was agreed upon to be handed out over a two-year period, and it was supposed only to be used for R&D (ibid). Saab was thus from that moment owned by Spyker N.V.

The financial situation was dramatic and the production was accounting only 38.756 cars (Saab Automobile AB, 2011), and the new owner tried to draw a future vision for the company based

on the previous business plan from Koenigsegg Group. Victor Muller was instantly accepted as a savior of the company, being a very charismatic leader.

“He is so enthusiastic. And I never saw anybody work harder than he did.” (Wade, 2016)

4.4.2 AN INTRAPRENEURIAL ATMOSPHERE

The agreement between Spyker and GM said that Saab was still able to use the current Epsilon 2 platform (Respondent X, 2016). They were however required to work with very scarce resources;

“We were lean and then we had to take care of everything, which meant that the people who were still there grew. We couldn't afford to hire too many. We hired some specialists, we back hired them. But mainly it was a matter of developing our own staff. So that was really a revitalization of the organization when Muller came in.” (Anulf, 2016b)

“It was a period where we wanted Saab to start being Saab again.” (Wade, 2016)

Additionally, this era is representing a renewed intrapreneurial spirit in the company;

“I think that during this period, they were “Saab unchained” a bit. They were trying to make Saab into the dream company they always wanted it to be [...] but as usual they had a lack of money, and most importantly a lack of time. I think there were a lot of good ideas during this period that never got off the ground because they ran out of money so quickly.” (Nordström, 2016)

Only six weeks after the acquisition, the first Saab 9-5 started being produced in the factory, taking all components from the subsidiary Saab Parts AB which had spare parts in stock (Nordström, 2014). Saab parts AB however, worked as collateral for the EIB loan, and the debt office of Sweden never got the information that Muller was using their stock (ibid).

Even though the new 9-5 was highly based on the Opel Insigna, it represented a highly innovative product for the company.

“The new 9-5 is the best car ever made! I have still in my computer a film sequence when we crashed them at 70 km/h [...] If you look at it in slow-motion you can see that they stay with all four wheels on the ground, they deform as they should, and you could both open and close the doors.” (Anulf, 2016a)

However, this was not a car developed under Spyker, but was inherited from GM (Cole, 2012). It was supposed to sustain the company over the first period while developing new models, but the production of the new 9-5 struggled since the supply of components needed was very unreliable due to Saab’s inability to pay their suppliers.

“I think that suppliers were vary of Saab at this period. They knew that Saab had problems with financing, that they had very small owners without deep pockets, so I think that all suppliers were sort of keeping their eyes on them.” (Nordström, 2016)

In parallel, the renewal plan was still taking place, and Muller wanted to develop the Phoenix platform for producing new models, and a concept car named “PhoeniX”, designed by Jason Castriota, made a huge success when shown at the Geneva Motor Show in 2011 (Cole, 2012), even if the heritage and “Saabness” of the car could be discussed;

“Saab did things that were distinctive, but this was maybe a little bit too flashy, a little bit too bling for a company like Saab.” (Wade, 2016)

These investments, together with sales of only 28.284 cars, rendered a negative financial result of 3.1 billion SEK in 2010 (Saab Automobile AB, 2011), and the financial resources became truly scarce. Furthermore, in late February 2011, GM denied Saab to get access to SEK 400 million earmarked for new developments of Saab cars sold while GM still owned the brand, which helped cause a huge liquidity problem for the company (Nordström, 2014). The severely damaged supply chain also caused big troubles;

“The stand still exaggerated and enhanced the problems Saab had with their supply chain, because once a car factory is shut down and you don’t produce cars on a regular basis, the supply chain gets severely affected. And you get suppliers who say “they will not buy things from us in the future” and they start to scratch them off their customer registry, and that was a huge problem when they started the production at Saab again.” (Nordström, 2016)

Saab's desperate financial situation peaked when the company received suspicious external financing connected to Muller's business partner Vladimir Antonov (Nordström, 2014). In connection with this event, the CEO, Jan-Åke Jonsson and two additional high-ranking Saab employees were later prosecuted for false certification and gross document forgery due to their involvement (Bolling et al., 2015). The responsible prosecutor, Olof Sahlgren, commented that he thinks that illegal actions took place due to the desperate financial situation (Nordström, 2015).

As previously stated, many suppliers stopped their deliveries to Saab, and for many weeks the factory did not produce any cars, and the auditing firm Grant Thornton valued Saab's shareholder equity to be a negative SEK 600 million at the time. A balance sheet for liquidity purposes was, however, not carried out (Nordström, 2014). The liquidity situation was extremely critical, and Muller tried to raise the money needed both through having Antonov accepted as an official shareholder, and having Antonov purchase the Saab factory. Both these suggestions were however stopped by EIB (ibid). In the beginning of May 2011, Muller worked out a deal with the Chinese car manufacturer Hawtai, where the Chinese actor purchased 30% of the shares in Saab for SEK 1.3 billion (ibid).

Later that month, Saab launched the Saab 9-4X, produced in Ramos Arizpe, Mexico, through a GM license. In the meanwhile, the deal with Hawtai collapsed, and the Chinese government got upset with Hawtai due to Youngman having an exclusive right to negotiate with Saab in China (ibid). By taking advantage of several Chinese companies' interest and thus increasing the price negotiated, Saab's and Muller's reputation got severely hit, and the negotiated cash injection of SEK 1.3 billion never reached Saab (ibid). Instead, Muller managed to close a deal with the Chinese car reseller Pang Da, where they received EUR 30 million in advance for the purchase of 1.300 cars initially, and another SEK 135 million for 630 cars with the same upfront cash terms (ibid).

The production re-started, but after a couple of weeks it stopped again, also this time due to a lack of supply. Without any luck, Muller continued to fight hard for investments (Cole, 2012).

“Saab did not produce a car for 8-9 months, so I mean it was also weird because it was sort of a tremendous loyalty towards the company in Saab, and I also think there was an element of loyalty towards Victor Muller, because people in management said that they were out of money and had to lay off people in the work force and when we restart we will try to rehire, we have to make cut backs. But he refused and said “no, no I can't let these people down” and put their trust in him,

so he kept this huge workforce of almost 4.000 [3208, Saab Automobile AB, 2011] people who did about nothing for almost a year.” (Nordström, 2016)

4.4.3 THE LAST CHANCE

As a move to receive liquidity, Saab sold 50.1% of the Trollhättan property to a consortium of Swedish real estate companies for SEK 255 million and a one-year usage of the factory free of rent (Fastighetsvärlden.se, 2011). This meant that Saab had money in the bank to pay its employee salaries (Nordstrom, 2014). In October 2011, Spyker signed a memorial of understanding to sell Saab to Pang Da and Youngman for EUR 100 million. GM, however, made opposition to Spyker ordering to invalidate the agreement with the Chinese partners since it would influence GM’s own interests in China negatively (Jolly, 2011). Youngman was considering to invest in Saab regardless of the GM statement, but according to Victor Muller, “GM said ‘whatever happens, come hell or high water, we won’t support a deal with Youngman” (Jolly, 2011). In August 2012, Spyker sued GM for \$3 billion for opposing to all potential deals with Chinese companies (SvD.se, 2012). The lawsuit was however not successful from Spyker’s point of view (Stempel, 2014).

The foundation of the disagreement between Spyker and GM regarding whether Spyker could bring in external, specifically Chinese, investors is that the disassembly of the intellectual property was highly complex in Spyker’s acquisition of Saab from GM (Granstrand and Holgersson, 2013). Saab’s dependency on GM technology thus turned out to be what made it impossible for Muller to raise the funding needed to sustain the company (ibid).

“I would say that Spyker was locked into a plan which was already late that they jumped on just to take the chance, that they were not allowed to change very easily or at all, and they were not allowed to bring in the investors they wanted at least.”
(von Koenigsegg, 2016)

4.4.4 THE BANKRUPTCY - SAAB’S DEMISE

The inevitable bankruptcy was imminent, and automotive analysts expected the company to be split up in its different assets and sold in pieces, and Anders Trapp at “Skandinaviska Enskilda Banken” (SEB) stated that there was not much left of the brand due to many years of problems

(Jolly, 2011). After a period of reconstruction granted by the Swedish supreme court in September (Nordström, 2014), Saab finally declared themselves bankrupted on the 19th of December 2011 (Svd.se, 2011) having a total debt of SEK 13 billion, and accumulated assets evaluated at SEK 3.6 billion (Genborg, 2012).

4.5 NEVS - AN ATTEMPT OF ELECTRIFYING A DEAD COMPANY

National Electric Vehicles Sweden (Nevs) was the bidder which later acquired Saab's assets from the bankruptcy estate. Today, partially following Koenigsegg Group's and Spyker's plan, they are attempting to develop electric and hybrid vehicles. This new owner understood the importance of Saab's former engineers' capabilities, trying to re-hire some key employees. However, they entered reconstruction in 2014 and as of today, they are producing only a very limited amount of cars in Trollhättan.

4.5.1 NEVS ACQUIRES SAAB'S ASSETS

One of the interested actors in this phase was Nevs, an international consortium formed by Japanese, Swedish and Chinese shareholders (Saabcars.com, 2016). After several rumors without any firm offers from other automotive actors (Nordström, 2016), Nevs acquired the assets from Saab's bankruptcy estate, namely the subsidiaries "Saab Automobile AB", "Saab Automobile Powertrain AB", "Saab Automobile Tools AB" and "Saab Properties AB" (Zephyr, 2016). The price paid by Nevs for the assets was not disclosed. Neither Saab Automobile Parts AB nor the intellectual property rights for the Saab 9-5 owned by General Motors were included in the acquisition (Respondent X, 2016).

"As I understand, the only real hard option they had in the end was Nevs, they were the only ones who actually had the money" (Nordström, 2016)

The founder and the majority shareholder of this firm is Kai Johan Jiang, and their plan is to develop future models based on the Saab 9-3 platform, and initially, they had the goal of launching those in 2013 or 2014 (Saabcars.com, 2016). Following this, other cars will be added to the range targeting global sales, starting with the Chinese market due to an increased demand for premium electric cars in China (ibid).

When acquiring the assets, Nevs simultaneously negotiated under several clauses the utilization of the Saab brand through a licensing agreement with Saab AB (Respondent X, 2016).

Therefore, future cars manufactured by Nevs were to be sold under Saab's name (Saabcars.com, 2016). In order to reach the goal of producing EVs, Nevs developed, together with the Chinese state, a battery plant in China that would produce batteries for both busses and cars (ibid). Furthermore, in 2013 Nevs entered a partnership with Qindao in China, who acquired 22% of the shares in the company (ibid). In the same year, the production of the 9-3 Aero re-started, and before the year ended, Nevs had managed to fully produce 71 vehicles (Nevs AB, 2014).

4.5.2 HOW MUCH "SAABNESS" IS LEFT?

In September 2014, Nevs went into reconstruction due to financial difficulties. The reconstruction was furthermore prolonged until March 2015 (ibid), and due to this, Nevs lost the right to use the Saab brand name (Fröberg, 2014). Under this restriction, Nevs representatives stated that they would launch the new electric 9-3 under a different brand name (Jolley, 2016).

In April 2015, Nevs successfully exited the reconstruction. By doing so, it was possible for them to create two new partnerships, one with Tianjin City Tianjin Binhai Hi-tech Industrial Development Area (THT), and another one with the Beijing State Research Information Technology Co., Ltd. (SRIT) (Saabcars.com, 2016). These partnerships were made in order for Nevs to develop a new, second factory and an R&D facility. This new facility will only develop EV's and additional Nevs cars based on further developed platforms (ibid). The second partner, SRIT will be crucial for software and connectivity (ibid).

On the 17th of August 2015, Nevs released a statement saying that they had signed an agreement for a long-term strategic cooperation with Dongfeng Motor (Pröckl, 2015). The agreement made Dongfeng a financing partner, with the company also having the possibility of utilizing Nevs' Phoenix platform. In fact, Dongfeng would provide financial resources for Nevs' engineers to finalize the Phoenix platform in exchange for the possibility of using it to produce EVs (Autoblog.com, 2015). Additionally, Dongfeng would financially support Nevs in establishing the production and R&D center in Tianjin, and they would also give Nevs access to their dealer network and offer them regulation expertise needed for acting on the Chinese market (Saabcars.com, 2016).

In September 2015, Nevs payed the complete amount of the remaining debts, and one month later, the company initiated a strategic alliance with the national government of Turkey. In this agreement, Nevs is providing Tübitak, the scientific and technological research council of

Turkey, with access to the intellectual property for the second generation 9-3 (Autoblog.com, 2015), including usage of the “9-3” trademark (Eriksson, 2015). According to the Industry and Technology Minister of Turkey, Fikri Isik, the goal is to produce 85-90% of the components in Turkey, starting selling EV’s in 2020 (Autoblog.com, 2015). Additionally, another strategic partner, Renesas Electronics was added in Nevs’ strategic network in November 2015 with the goal of gaining expertise in technical areas sharing the same vision on the future of the mobility (Saabcars.com, 2016).

Proceeding with their aggressive alliance building strategy, Nevs entered another collaboration agreement with the Chinese company Panda New Energy Co., Ltd (ibid). Nevs would provide Panda with 150,000 9-3 sedan electric vehicles until the end of 2020 (ibid). And as late as in February 2016, they negotiated a framework agreement of acquiring 50% of a newly formed joint venture looking to produce electric minivans and buses with Panda (ibid). Finally, in March, they signed a strategic cooperation deal with the Chinese state-owned company State Grid, producing power grids (ibid).

4.6 REASONS FOR THE BANKRUPTCY - WHY DID SAAB DIE?

Saab was never a financially viable company (Respondent X, 2016), and from the employees’ perspective, the technical department was sometimes too strong for the good of the company (Håkansson, 2016). Saab was also in need of more extensive marketing activities in order to be able to compete with established car manufacturers, such as the German ones (Anulf, 2016a). From their perspective, GM were to blame for the demise, killing the intrapreneurial spirit which earlier was present in Saab’s engineering department.

”When GM implemented a higher degree of bureaucracy and control, development times were exceeded, and the passionate, entrepreneurial driven decision making was excluded.” (von Koenigsegg, 2016)

Already in the 80’s, Wallenberg understood that the R&D costs were increasing, and that the company in the future would have to face enormous investments in order to compete (Anulf, 2016b). Moreover, the company was never able to compete in the premium segment due to a lack of resources (Wade, 2016).

Another perspective regarding the failure, can be traced back to the upmarket strategy of Saab, beginning with the 900, going all the way up to the last 9-5. This differentiation strategy implied that Saab's original customers, loyal to the heritage of the company, were forgotten. A smaller compact version of the 92-96 could have represented a way of reinvigorating the original ethos of the company (Cole, 2016). Moreover, a branding issue due to mismanaged platform sharing (ibid) and badge engineering (Anulf, 2016a) could be identified as another reason for the demise;

”GM destroyed Saab’s brand pillars and products by focusing on branding Saab without maintaining its original identity. GM simply did not understand Saab, and Saab employees didn’t follow order in the same way as the GM subsidiary Opel did.” (Cole, 2016)

4.7 WHAT WAS LEFT?

In all the interviews, the competences derived from the engineering knowledge and expertise within Saab, was considered to be the most important value left behind when Saab went into bankruptcy. Within the process, however, all employees' contracts were terminated, and only a few former Saab employees, mainly from management, were re-hired during the bankruptcy estate process (Respondent X, 2016). Furthermore, many key employees left the company already during the final years of GM ownership, finding other positions in the automotive industry, both in multinational car manufacturers and in R&D centers such as the Volvo/Geely owned development center CEVT (Anulf, 2016a). In connection with the knowledge derived from engineering and design capabilities, patents are considered a valuable asset. However, specific patents or families of patents were not mentioned by the respondents as being extremely valuable assets within the bankruptcy estate.

Many tangible and intangible outcomes of Saab's capabilities were developed over time, embodied in specific platforms, which is known as important and hugely valuable in the automotive industry. The modular architectural platform SPA developed for the new Volvo XC90 for example implied development costs of approximately SEK 11 billion (Robbins, 2014). In Saab, the Phoenix platform derived from the platform used for the development of the 9-3 in the beginning of the 2000's was developed with the goal of being completely independent from GM technologies and IPR, and the platform was considered to be the

“number one asset” of the bankruptcy estate (von Koenigsegg, 2016). However, this asset was considered as not even being remotely close to finalized, but rather in need of further investments (Nordström, 2016). However, Anulf (2016b) stated that the platform was “*rather well developed at the time of the bankruptcy*”, but as could be identified in Nevs’ partnership with Dongfeng, the platform was not yet finalized since the goal of their partnership was to complete it.

Another source of value was the factory of Trollhättan, being widely recognized as the most relevant asset to consider in the bankruptcy estate (von Koenigsegg, 2016; Nordström, 2016; Wade, 2016; Cole, 2016). It was a rather modern factory within a region with a tradition for the automotive industry, e.g. including infrastructure and an established connection to suppliers (von Koenigsegg, 2016). At the time of the bankruptcy, it was one of the most modern factories in Europe, having a completely integrated R&D and production (Wade, 2016; Anulf, 2016b). A different view regarding the geographical position of Trollhättan is considering the value of the factory as substantially lower than if that same factory for example would have been located in a more central European area (Nordström, 2016).

The Saab brand, even though Saab in the past had some of the most loyal customers in the industry, was undeniably tarnished due to the struggles and unsuccessful models in the end of the life of the company (Wade, 2016), suggesting that the value of the brand was not outstanding. Additionally, cars will never again be produced under the Saab name since Saab AB revoked the rights for Nevs to use the brand after going into reconstruction (Wennberg, 2016).

Another crucial element representing a source of value for automotive producers is their supplier network. Even though many, both Swedish and international, suppliers were trying to support the company when they were in financial trouble in the last couple of years, their reputation was severely damaged (Nordström, 2016). In fact, many suppliers were also present on the list of the creditors in the bankruptcy estate (Respondent X, 2016).

4.8 QUANTITATIVE OVERVIEW (1997-2010)

After the historical reconstruction, this section is presented in order to create awareness regarding the financial and market performance of Saab, including turnover, EBIT, number of employees, production and sales of the last fourteen years of the life of the company. A specific

analysis for “Norden” (Sweden, Norway, Denmark, Finland and Iceland) and the Swedish market is also addressed in this overview. The quantitative material used is derived from “Bilsweden.se” and Saab’s annual reports between the years of 1997 and 2010.

Year	Turnover	N. Employees	EBIT (mSEK)	Total	Total Sales
1997	22390	8135	-1230	NA	NA
1998	28418	7855	68	NA	NA
1999	29758	9071	96	128120	131240
2000	30453	9077	196	132803	132291
2001	28195	7772	2	123755	126058
2002	28653	7176	-3802	125045	120800
2003	28159	6337	-3753	130034	131641
2004	26418	5350	-3051	128826	127541
2005	25808	5157	-3907	127593	126401
2006	24208	4689	-2897	135365	132957
2007	21722	4338	-2194	122625	125086
2008	15641	4129	-4148	89086	93220
2009	6080	3241	3678	20892	38756
2010	6301	3208	-3126	32862	28284

Source: Saab Annual Reports 1997-2010

As could be noticed in the table above, a key year in the life of the company is the year 2000, because from then, most of the variables are decreasing steadily until the bankruptcy of the company. The effect of the low financial performance was, however, not affecting the

production and sales which peaked later, namely in 2006. After this year, the results were clearly pointing towards only one potential outcome; the bankruptcy.

The turnover increased from 1997 to 2000, but after this, it decreased constantly until 2008, having a huge drop during the crisis in 2009. The only exception occurred in 2009, being however derived from the sales of tools and intellectual property to BAIC at a value of SEK 1.5 billion (von Koenigsegg, 2016), and a decrease of the total debts due to renegotiations with creditors. These renegotiations implied SEK 8.2 billion in savings for Saab. The two deals together compensated a result which would have been a SEK 5.5 billion loss in 2009 otherwise (SvD.se, 2010).

Saab faced huge losses from 2001 (see appendix 5) and had a decreased turnover followed by increased R&D costs in the subsequent years. In order to lower costs and be more efficient, already after the initial acquisition of GM in the 1990s, Saab's workforce dropped by 30% as a leaner production was emphasized. The number of employees later continued to drop even though increasing from 1998 to 2000, probably due to the expansion plans initiated in 1996. After the complete acquisition of GM, the total number of employees decreased steadily, being most dramatic in the years of 2001 with a decrease of 14.38% and in 2004 with 15.58%. The biggest drop could however be found during the financial crisis in 2009, where the number of employees was reduced by 21.51% (Saab Automobile AB, 1998-2011). Full employment statistics can be found in appendix 6.

Although knowing that the number of cars produced in the Swedish facility of Trollhättan has been stable around 100.000 units per year from 2000 to 2007 (Saab Automobile AB, 2001-2008), the decreased number of employees can be derived from a simplification of the organizational structure and a rationalization of the production. The workforce has been reduced over time (Lavén and Bergström, 2014), driven by increased synergies and a technological enhancement of the production facility (Strom, 1996). Moreover, the only stable production facility was the Trollhättan factory, which was the most important production site for the company considering the total production (Saab Automobile AB, 1998-2011). The other factories instead, considering the production volumes of the industry, were only residual and one by one, they were eventually discontinued for Saab brands, as was the case with the Valmet facility which GM disinvested in (ibid).

In the end of the life of Saab, GM tried to increase the volumes in Trollhättan, adding the production of GM's model Cadillac BLS. The Saab 9-3 cabriolet was produced in a Magna

Steyr owned factory in Graz from 2003 to 2009. Additionally, GM initiated production in Ramos Arizpe, Mexico (from 2008), and Moraine, USA (2005), being anyway very limited compared to the production in Sweden. Finally, Saab produced the badge-engineered 9-2X in Fuji Heavy industry (Subaru) for a two-year period, ranging from 2004 to 2006 (Saab Automobile AB, 2004-2011). For full production figures and graphs, see appendix 7.

Even though the number of cars has been stable for a long period, enhanced investments in starting different model lines and increasing R&D costs have surely influenced the profitability of the company. However, the authors were not able to support this information, not having access to a more precise investment specification. Additionally, it is clear that in the automotive industry, a crucial factor of success is to split development costs on an increased amount of cars produced; however, Saab didn't increase volumes enough to remain sustainable (Wade, 2016). In the year 2000, the VW group for example sold around 5 million cars, and Audi, as being part of the VW group and also being a competitor to Saab, sold around 650.000 units (Volkswagen AG, 2001). Another clear example of Saab's low production figures can be identified when considering that in 2008, VW produced 764.776 units of one single model; the VW Golf (Volkswagen AG, 2009), compared to a total production of fewer than 90.000 cars for Saab, taking all models into consideration. Therefore, even with the help of GM, Saab did not reach the expected production volume of 150.000 cars. Another competitor, BMW, was able to compete with both premium models such as the 5- and 7-series as well as with entry level cars, increasing their sales from 672.238 units in 1997 to 904.335 in 2001. This rapid expansion was led by the great performance of the 3-series with 533.952 cars sold (BMW AG, 2002).

Porsche, also part of the VW group, even though being in a completely different, premium sport and luxury niche of the market, sold 116.978 cars in 2011 (Volkswagen AG, 2012). This number corresponds to what Spyker aimed at reaching when acquiring Saab, entering this luxury market (Nordström, 2016).

In 2006, Saab reached their historical peak of sales, accounting for 132.957 units, and after this year, sales were steadily decreasing until the bankruptcy (Saab Automobile AB, 2007-2011). Total sales are found in appendix 8.

“Norden” was representing a very loyal market for Saab considering that the number of cars sold was close to equivalent to Europe and America respectively. Thus, their market share was much higher in this narrower market. As previously noticed, 2006 represented an expansion year for Saab, mainly derived from increased sales in Europe and the US (Saab Automobile

AB, 2007). In the Nordic countries, sales were less sensitive and more stable overtime. Regional sales figures are found in appendix 9.

Saab as a company did from the year 2002 sustain their global sales especially thanks to the second generation 9-3 and its consequent evolutions, which, together with the older 9-3 convertible, accounted for approximately 71% of the total sales of Saab during the years 2003 to 2009 (Saab Automobile AB, 2003-2010). The market performance of these models (9-3) accounted for around 80% of all sales between the years of 2007 and 2009. The badge-engineered models 9-2X and 9-7X, failed to increase the customer base, being only sold in 10.324 and 20.460 units respectively. In addition, the 9-5 was an aging model, showing declining sales (ibid). The sales divided per model can be found in appendix 10.

Taking a closer look at the more loyal and stable Swedish market, Saab's models were for many years positioned as number 2 with the 9-5 and number 4 with the 9-3, having Volvo models positioned as first and third. While the Saab 9-5 was aging in 2007, the 9-3 replaced the position of being the best Saab car in terms of sales, with a 2nd place after Volvo's number one model. Impressive as it looks in the domestic market, Saab reached a maximum of 10,35% of market share compared to an average of 19,97% for Volvo between the years of 1997 and 2012 (Bilsweden.se, 2016). See appendix 11 for comparison between Saab, Volvo, BMW and Audi on the Swedish market.

Thus, in Sweden, the biggest competitor is accounting for at least double the sales volume compared to Saab. In 2009, due to GM's financial crisis and potential Saab alienation, the brand was positioned in 9th position, passing from a market share of 7.82% to 3.29% while Volvo, even though sales were dropping at the middle of the crisis, increased their market share by approximately one percentage point (ibid). During the Spyker era, Saab exited the chart of best-selling models one year later (ibid). See appendix 12 for a detailed visualization of the top 10 selling models during the years 2000, 2007 to 2010 and 2015.

Gathering all the rankings from different years, comparing not the models but instead the car manufacturers, notably the VW group increased its market share in Sweden through their brands Skoda, Audi and VW (ibid). Finally, in 2009, Saab decreased their sales massively, losing 12.000 customers which accounted for approximately 5.6% of the market (ibid). At this time, new entrants such as KIA, BMW and Ford rapidly increased their positioning in the top 10. See appendix 13 for a full overview.

5. DISCUSSION

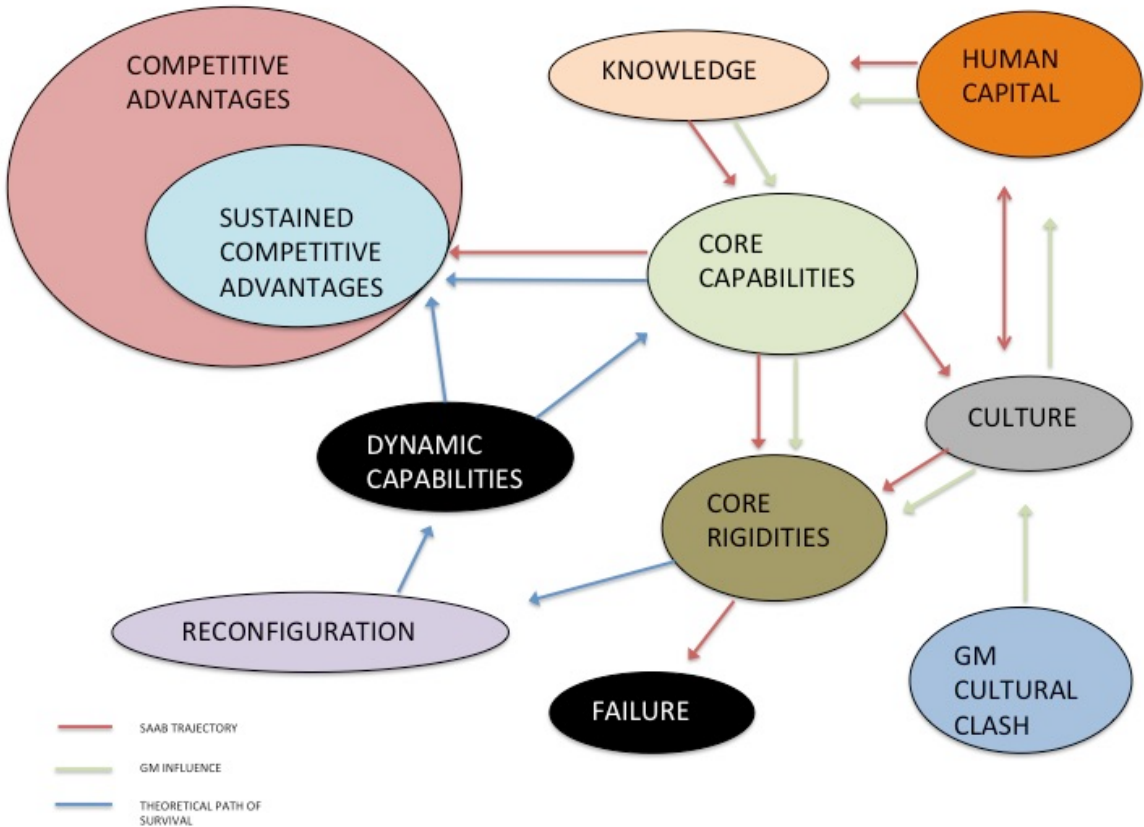
Before answering the research questions, the authors are in this section beginning by introducing the quantitative results based upon section 4.8, depicting the output of a long, detrimental process. According to the previously described methodology, the roots of the financial trouble described above will be scrutinized in order to answer the research questions.

Already after the 80's, Saab was struggling in seeking an increased production volume. Even with part sharing activities, the profitability of the company was low and not sustainable due to the overall increasing costs in the automotive industry. Saab's production was stable for quite some time, but the production volumes were, however, not comparable to their competitors. Indeed, platform sharing activities are, even though there is a risk of damaging brand associations, crucial and are representing a growing cost savings trend in the automotive industry (Olson, 2008). Audi, for example, exploited the advantages of increased sales and economy of scale derived from platform sharing within the VW group (Oliver and Holweg, 2011). Managers must understand the implications of this activity very well in order to balance the short-term cost savings with the advantages of long-term sustainability derived from a strong brand equity (Olson, 2008). This is even more important in the case of Saab, since a small brand in the premium market should appeal as unique and distinctive, and component sharing could dissipate these attributes (Štrach and Everett, 2006). For Saab, customers were becoming more alert, knowing that they could buy similar features for less money if buying an Opel rather than a Saab (ibid). Moreover, Saab's products, with the model 9-5, meant to be in a premium segment, did not appeal enough to the customers in order to justify the focus of becoming a niched luxury producer.

From the quantitative overview and the historical reconstruction, the authors identified further issues regarding Saab's performance which could all work as valid explanations for why Saab ultimately failed and went into bankruptcy. First, the low production figures due to a niched offering did not support the huge investments from GM and previously Investor AB. As stated above, Saab's competitors were able to differentiate and reach higher volumes, not comparable with the Swedish manufacturer. Additionally, properly conducted platform sharing activities, such as Audi had with the VW group, probably played an important role in the rise of Audi as a premium and successful brand. On the other hand, for Saab and many other luxury, niche producers, it is a challenge to keep uniqueness and identity while at the same time reaching high volumes. As in the case of GM and Saab, when a big manufacturer acquires a smaller,

more premium one, there is a high probability that platform- and component sharing will negatively affect the brand of the acquired firm, reaching only short-term cost advantages (Štrach and Everett, 2006). This contradictory balance affected the life of Saab and inhibited the growth of the firm, not being able to balance its uniqueness with a mass-market logic (Oliver and Holweg, 2011). Moreover, Saab’s development costs were high compared to the production forecast. GM tried to simplify the production and the development by implementing new, leaner processes. However, in the development of the second generation 9-3 for example, the costs exceeded the expected ones by more than 20%.

As previously said, the quantitative factors stated above all played a role in the demise of Saab. However, Saab’s major issues were not only based on these factors. Instead, they were the output rather than the root of Saab’s trajectory towards the demise.



Source: Summary of analysis

This visualization shows the theoretical framework applied in order to depict and discuss how it appears to the authors as Saab’s trajectory towards failure looked. The past sustained competitive advantages of Saab relied upon knowledge-based core capabilities derived from the human capital of the company. The historical success seems to have enhanced the

technocratic culture of the company, developing core rigidities. Saab did not manage to reconfigure the company in order to create new, much needed core capabilities, and if Saab would have developed dynamic capabilities, they could potentially have been able to survive in the long run. Instead, GM's ownership, especially during the last period, focused on short-term sustainability rather than helping Saab to become an ambidextrous organization. Moreover, platform sharing with Opel represented a mismanaged activity that was not aligned with Saab's high quality standards. Therefore, the cultural clash derived from this ownership negatively affected the performance of Saab.

In the picture above, the red arrows represent the trajectory of Saab; the green ones show how GM influenced Saab, and; the blue ones represent a potential, theoretical path which could have saved the company.

The following sections will dig deeper into the general areas described in the visualization, thus discussing the research questions stated in section 1.3.

5.1.1 WHAT WERE THE ORIGINS OF SAAB'S UNIQUE COMPETITIVE ADVANTAGES?

The authors, when identifying the historical competitive advantages of Saab, agreed upon the view presented in the theoretical framework, considering survival and growth as the output of an accumulation of knowledge based on human capital, which generates core capabilities. Core capabilities are providing sources of competitive advantages to the company, especially if being based on knowledge-assets, due to the difficulties for competitors of appropriating and imitating such capabilities.

From the qualitative data collected in the historical reconstruction, the researchers identified three main core capabilities in product development which can be divided in; engineering regarding safety solutions; engine development and management, and; tuning parts with the goal of communicating sportiness and driving pleasure. These capabilities represented the drivers of the past success of Saab, and combined with a purposeful design and aerodynamics derived from the first "UrSaab", they were embodied in "true" Saab cars which experienced market success.

In fact, these capabilities created the distinctive attributes, beloved by the loyal Saab enthusiasts, and due to these characteristics, Saab was able to define its own niche, instead of following trends or taking decisions based on current fashion. The logic was to offer the best solution, rather than providing only adequate products to their customers. The core capabilities in car development were therefore connected to high quality and a high degree of innovativeness, as could be seen in the introduction of the turbocharger in the 99 and 900 starting in the late 70's, thanks to the engineering "project champions" (Howell and Boies, 2004) present in the company at that time.

More precisely, Saab's core capabilities in engine development permitted the company to customize and increase the performance and reliability of both Ford- and Triumph engines which Saab mounted for many years. After the merger with Scania, Saab started developing their own high performance engines, and as said, the most historically recognized innovation derived from this unique engine development capability can be found in the first reliable turbo application. Thanks to the efforts of Saab engineers and the application of innovations such as the wastegate, the Saab turbo instantly became a huge success and a benchmark in the industry. Saab did, in the following years, come up with many innovations connected to combustion engines, solving for example the "knocking" problem effectively with ionization based sensors.

Another core capability which could be tracked within the historical reconstruction is the one to develop safety features. This was one of the strongest attributes for the Saab brand due to the fact that the company grew specific knowledge in this area over time through their unique and sophisticated testing procedures. Saab developed an improved safety testing ground in the automotive industry, as noticeable in the Swedish "Elk-test" for example. Other examples of this safety focus is the development and application of the "SAHR", and later the "Night panel". These are only some of many outputs derived from Saab's emphasis on safety, and more innovations with these characteristics could be found in appendix 3.

Saab cars were however not only about safety features. They were undoubtedly embodying good and reliable sports characteristics thanks to the specific capabilities of Saab engineers to enhance these attributes without compromising the everyday drivability. Clear examples of this can be found in the models 92-96, which were over-engineered and highly reliable cars. Later, this specific capability evolved, providing Saab with the possibility of developing cars such as the Saab 99 Turbo, the winner of many important rally competitions, which showed the sporty attributes of a vehicle which was still mounting mainly stock parts.

Furthermore, Saab's core capabilities in design can be recognized in their unconventional and purposefully developed cars, which created functional attributes rather than ornamental features. This approach can be connected to the aircraft heritage of the company, focused on aerodynamics and usability. This is easily identifiable in the "hatchback" silhouette used in many Saab models - a shape enhancing both sporty looks as well as usability due to its increased trunk space compared to a sedan. Also the interior of the cars is reflecting this logic, for example in the orientation of the dashboard which is recalling the cockpit of an airplane. This purposeful design was also in line with the engineering driven culture of the company, being a distinctive element in Saab cars.

All these capabilities were embodied by the employees and interconnected to their strong feeling of belongingness in Saab, creating a difficult-to-imitate competitive advantage for the firm. Moreover, this company culture was tightly connected to the intrapreneurial spirit in Saab which was fostered by a high degree of freedom and collaborative atmosphere, focusing on R&D exploration rather than exploitation.

5.1.2 DID GM'S OWNERSHIP INFLUENCE THE SUSTAINABILITY AND UNIQUENESS OF THE FIRM?

The empirical findings suggest that Saab's employees initially were satisfied with GM's ownership since Saab could take advantage of having an established partner as GM. This partnership created, as mentioned in the historical reconstruction, mutually beneficial outcomes for both actors. Therefore, Saab was willing to integrate within GM at first, but the relationship did, however, follow a trajectory towards separation rather than integration and became, due to acculturative stress, more frictional when the part sharing with Opel got extensive. In parallel, this also affected the quality and customer perception of Saab cars. In this situation, Saab was not willing to abandon its culture while they perceived GM's culture as less attractive over time. This friction evolved into a visible cultural clash which quickly got magnified, starting with both companies perceiving the differences between the two very distinct development logics, ending up with a stereotypical view of one another.

The "lower quality" outcome of the 900, in parallel with GM trying to preserve the Saab brand, enhanced Saab employees' perception that producing more "Saabised" cars was the solution for satisfying its customer niche again. As stated in the historical reconstruction, "*Saab's old*

men worked very hard to 'Saabise' these (Opel) cars" (Cole, 2016), suggesting that the engineers who experienced the past success tried to embody the same logic of reaching quality without compromising once again.

A clear example of this logic can be found when Saab's engineers, during the development of the second generation 9-3, exceeded GM's expected budget by 20% at the same time as many innovations connected to the development of this model were not usable in other GM brands. Therefore, the project as a whole was a clear example of Saab entering a paradoxical trajectory. They evolved into becoming "tinkerers", characterized by the exaggerated development approach where costs were not tracked, and the quality of the product was the only objective. This event appears as being a mirror of internal core rigidities which were fostered by the cultural clash with the mother company.

This seizure between the two companies became even more notable after this; under the "bean-counter" era, the two firms were perceiving each other in a very stereotypical way, lowering the possibilities of future integration. Saab looked upon GM as a bureaucratic, cost cutting owner while at the same time perceiving themselves as intrapreneurial innovators, better suited for running the business. Saab's employees were complaining for not being able to deliver proper Saab cars due to the financial and part sharing constraints, and the dissatisfaction amongst Saab engineers is easily recognized in the empirical material. At the same time, GM was not satisfied with Saab's low volume of production. In this setting, an example of GM management's short-term view focused on sales can be found in the brand destructive models 9-2X and 9-7X, and due to these practices, Saab was no longer able to grow and foster a strong identity. Therefore, GM eroded the Saab brand, affecting the development process by mainly addressing Saab's future performance with a bureaucratic cost savings approach.

Saab employees considered their culture as stronger and more effective than GM's, trying to put down and denigrate their mismanagement. Within this extensive organizational friction between Saab and GM's "bean counters", several key employees dropped. Moreover, there were rumors about an attempt of buying out the mighty GM in order to re-establish the true, innovative Saab spirit and freedom to operate. This marriage was therefore not effective, but instead characterized by a lack of integration, thus being utterly separated. Within this cultural clash, Saab lost an opportunity of achieving economy of scale derived from platform sharing activities through the partnership. Instead, Saab lost the individuality and unconventional thinking which characterized the company in the past.

Moreover, GM did not assist Saab in fostering reflectivity and development of dynamic capabilities able to shape routines in order to react to environmental changes, which could have generated long-term sustainability for the brand. Instead, the environment always influenced Saab, which in response struggled in reconfiguring due to financial constraints and organizational rigidities. A potential solution for overcoming this detrimental process and managing an effective integration could be found in a conjoint development of dynamic capabilities, as a way of affecting both the daughter- and the mother company's procedures, rather than being imposed solely on the acquired firm. This happened only partially in Saab, and should be further investigated.

If developing dynamic capabilities, Saab would have been better suited for questioning themselves and changing the learning style of the company in order to maintain long-term sustainability. Dynamic capabilities could thus have enhanced the flexibility, and they could have been able to balance short- and long-term objectives by including both exploration and exploitation phases. This was a struggle within Saab, as could be seen with the expression; *“when we came closer to production start, then it's not so funny”*. This reconfiguration process did, however, not take place in Saab under GM, instead the focus was on short-term survival which did not exploit the knowledge-assets of Saab.

Saab never intended to get fully integrated in the mother company, trying always to demonstrate their engineering superiority and more advanced approach in development. Therefore, both companies are in different ways responsible for the ultimate failure of Saab. GM undeniably influenced the path to Saab's demise. However, even though losing their historical uniqueness, Saab would not, without a strong partner, have been able to survive, considering that already after the 80's, the production volumes were not enough for sustaining new, differentiated product launches.

5.1.3 WHAT HAPPENED TO THE COMPETITIVE ADVANTAGES OF SAAB UNTIL THE DEMISE OF THE COMPANY?

The core capabilities could, as discussed in the theoretical framework, evolve into core rigidities when historical success and excellence create a monolithic culture, relying upon a single department. In fact, this situation could occur when the department responsible for the past

success is not questioned, and in the end, it could transform into becoming an obstacle for innovation.

In Saab, the success in the golden 80's represents the peak of the company's performance. Due to its core capabilities, they reached global recognition especially during the turbo generation, achieving high sales and extremely positive feedbacks. At that time, Saab was able to deliver cars which were embodying innovativeness and high quality in a way which competitors did not. This was possible due to the Saab engineers' ability to push out products which were inheriting their thoughts regarding how a car should be built, rather than following what customers were asking for. At this time, given their advanced knowledge, cars were manifesting the pure intrapreneurial and innovative spirit of the firm. This approach was therefore part of the strength derived from these core capabilities, helping the company to survive and grow. Saab cars were not only matching, but actually exceeding customer expectations, and the reaction from customers was then of course that Saab cars were good, and the loyalty grew. This emphasis on engineering rather than pure sales tactics did not only attract customers, but also engineers outside the company who wanted to be part of this environment as could be seen in Anulf's (2016a) statement that Saab was the best place to be in.

Furthermore, this success fostered a company culture of pride where the engineers were loyal to the company and its values which were underpinning the products delivered to their customers. As a self-reinforcing circle, the engineering department's excellence strengthened its organizational importance, creating a lower attention on other departments. The decision making processes in the firm were already, from early on in the history, being led by the engineering department which was sometimes "too strong" for the good of the company.

As in the metaphor of "Icarus Paradox", the biggest strength of Saab evolved into a potential obstacle for organizational reconfiguration. The core capabilities which were providing Saab competitive advantages, embodied in design and unconventional engineering solutions, created core rigidities which increased the stubbornness of the company. Saab kept its position without evolving; they were loyal to the "previously worked" formula.

As stated in the literature review, this trajectory is common in several highly technical engineering fields, where the historical expertise represents a key element of success and sustainability for a firm. Saab appears not to have been able to reconfigure and change these core capabilities in order to match the environmental changes, and there are several reasons for why this "momentum" of self-reinforcing rigidity happened. Some of them can be recalled in

the historical focus of the company in delivering quality and innovations without compromises. The engineering excellence appears to have become an obsession, later evolving into a technocratic monoculture already early on, as could be seen in several statements, such as;

“We decided in the technician side but it was not so good for the customer. One simple thing is the cup holder. The cup holder is one of the most important parts in the US. There should be at least one in the dashboard and one in the back. And we didn't understand this. You can apply this on other things too.” (Granlund, 2016)

Subsequently, this single-handed focus culminated with the second generation 9-3 under GM's ownership;

“If someone of us would have said "isn't that too expensive? Is it really customer value corresponding to the cost? I think some of us would have said "what a boring type, what are you doing here, you are not a good member of the team.” (Anulf, 2016b)

The technologically driven product development logic was even less customer centric. The increased quality and engineering enhanced the price of the products, entering a more premium segment without managing an increase of sales in parallel. But as explained in the previous section, the relationship with GM could however have affected this detrimental trajectory.

Even though Spyker unchained the original innovative spirit of Saab, permitting a high degree of freedom and creativity, as could be seen in innovations such as the last low emission turbo diesel, the competitive advantages of the company were already affected by the interconnections with GM. This created a situation where the company was not independent enough to start competing in the short-term. Within both the Spyker- and the Nevs era, it is notable that the production of new models was always postponed and their respective plans were highly optimistic. In both cases, the financial resources were not enough to support a fast re-start of the production. Surely, the Phoenix platform, the advanced factory and some key employees played an important role in supporting the bundle of assets needed in order to revive Saab's historical heritage. However, the recipe was only partially complete under Spyker. Saab struggled because the bundle of assets needed to make it sustainable was not present in the short-term. Probably for Nevs, all the ingredients needed in order to re-start modern car production has only recently been acquired, thanks to several investments and external partnerships.

Saab has always been in the need of a strategic partner able to provide financial resources, also having an understanding of its unique attributes and spirit. This has, unfortunately, not been possible neither under GM-, nor under Spyker ownerships. In the first case, the authors can identify a severe clash and misalignment of values, and in the second case, there was a lack of financial resources and a too optimistic plan. A mediation which never happened could have represented a future opportunity for Saab to survive and develop new competitive advantages, but due to the lack of volumes, together with financial constraints, the company would probably not have been able to sustain the expansion alone. Taken together, all the historically determined competitive advantages of the firm have therefore been severely negatively affected throughout this trajectory.

Additionally, other barriers which inhibited Saab from developing dynamic capabilities can be found in a low interaction with the contextual environment which was not considered in a value creation approach, but more as a pure monetary exchange. In fact, Saab did not cooperate closely with universities as opposed to for example Volvo, showing therefore a limited and not exploited absorptive capacity. Also, the adaptive and innovative capabilities seem to have faded within Saab due to key employees leaving the company at the end of the GM era. In the end of the life of the company, there were some attempts of collaborations and more market driven innovations, e.g. with the Saab-Haldex fourth generation XWD system. However, other players in the segment were already using similar technologies since a decade.

5.2 DELIMITATIONS AND LIMITATIONS

Due to the research questions derived from the purpose stated, this thesis is not aiming at defining neither best practices in the automotive industry, nor generalizable sources of competitive advantages and/or their evolution. Instead, the focus is on revealing the peculiar case of Saab Automobile AB.

Moreover, the research questions have been scrutinized mainly through qualitative variables with a specific focus on human capital. The authors are not claiming an exhaustive description of the multiple potential reasons behind the ultimate failure of the company, being just an initial “brick” of analysis in the case of Saab. Thus, the explicative variables used with this methodological framework are human factors connected to organizational and inter-organizational issues such as behavior, experience and routines. This approach has been used

since organizational capabilities are *“based on knowledge. Knowledge is therefore a resource that forms the foundation of the company’s capabilities”* (Marr et al., 2004, p. 551). Other variables such as low volumes in production and sales and financial performance benchmarked with competitors of Saab have been presented and analyzed through a quantitative overview, however not as the primary focus of this thesis.

When entering the inter-organizational factors between Saab and GM, the M&A literature can be divided into three different schools; the financial economic school; the strategic management school, and; the organization behavior school (Bauer and Matzler, 2013). The scope of this thesis only includes the latter two, the strategic one involving effects such as pre-merger relatedness and complementarity, and the organizational one focusing on culture and individuals. Therefore, a truly financial stream is not regarded, thus being a delimitation in this thesis. Additionally, since the research is exclusively based on Saab, it disregards the perspective of GM. Moreover, the findings could not be generalized and applied in other M&A settings.

The authors are aware that due to the strong interplay present in subjective qualitative variables, the accuracy of the empirics will be difficult to assess since the variables can be dependent on a wide pool of personal sub-variables not tracked in the study. Due to its nature of not being under the control of the authors, this could be considered a limitation rather than a delimitation.

5.3 FUTURE RESEARCH

Further research is needed both in the specific, peculiar case of Saab and for theoretical research which could use this thesis as a starting point.

5.3.1 FURTHER RESEARCH ON SAAB

Due to the complexity and subjectivity of the qualitative research conducted, gaining a deeper understanding of the case, adding additional point of views, e.g. derived from GM and Opel, in order to compare and contrast the initial findings from this thesis is needed. The historical reconstruction depicted by the authors can be used as a starting point for enriching the content with new materials for a better understanding regarding the trajectory towards failure. Due to the high level of interdependence present between the variables studied in this research, shifting

focus towards other ones could lead to a different approach where other, hidden variables which the authors could not identify in this study could be investigated. Many explanations for the failure of Saab could thus still have been in place, not being in focus in this thesis, such as the fading of the brand equity, supplier relationships and a more detailed view on car development and platform sharing activities.

Several research strategies could therefore fit this case, and the authors agree that benchmarking with a car manufacturer with similar characteristics, facing similar obstacles such as low volume issues, M&A integration problems, or an established actor operating in the same segment could furthermore reveal stronger findings and correlations. This could further clarify Saab's trajectory towards the bankruptcy.

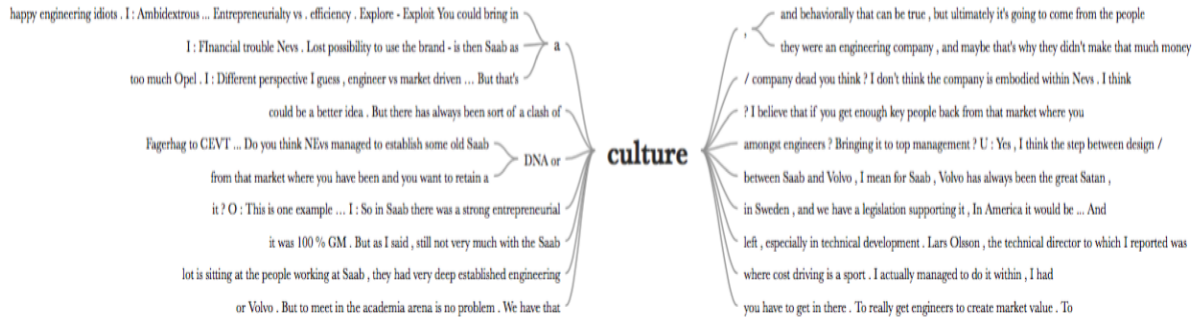
5.3.2 FURTHER THEORETICAL RESEARCH

The authors consider core capabilities as the true source for sustained competitive advantages, and in this case, a trajectory towards core rigidities has been investigated. Further research on this trajectory is needed due to the peculiarity of the context, involving an acquisition. For Saab, being acquired by GM led to a cultural clash which appears to have influenced or accelerated this evolution towards core rigidities and ultimately failure. Even though this appears to have happened in the case of Saab, further research focusing on revealing the real impact of the acquisition on the core capabilities should be conducted.

The authors believe that this case could represent a starting point for studying the impact of acquisitions and cultural clashes, and their implications on the evolution of core capabilities becoming core rigidities. It could also be interesting to study how organizational and strategic fit in M&A integration strategies could be exploited in order to create dynamic capabilities for reaching survival and long-term sustainability.

6. APPENDICES

Appendix 1



Source: ATlas Word Tree



Source: Nvivo WordCloud

Appendix 2

Primary code	Secondary code
Characteristics	Engineering department
	Decision making process
	Innovation logic
	Competitive advantages
	Motorsport
"Money"	Costs
	Financial performance
"Ownership"	GM impact
	Koenigsegg Group interest
	Spyker impact
Bankruptcy	Reasons for the bankruptcy
	Residual value after the bankruptcy
Stakeholders	Customers and Brand loyalty
	Collaborations and Suppliers
	Competitors

Appendix 3

Year	Models	Innovations	Patents	Ref. Number	Ownership
1947	First Saab prototype	UrSaab, Cd 0,35 aerodynamics built and aircraft safe	N/A	N/A	SAAB
1949	Saab 92		N/A	N/A	SAAB
1953		Factory fitted seatbelts	N/A	N/A	SAAB
1955	Saab 93	3 cylinder 2-stroke engine	N/A	N/A	SAAB
1956	Sonett I	First fiberglass reinforced built (Sonett)	N/A	N/A	SAAB
1960	Saab 96, Saab 95	Airflow-tuned cabin-air system	N/A	N/A	SAAB
1963		Diagonally split dual brake circuits	N/A	N/A	SAAB
1966	Saab Sonett II		N/A	N/A	SAAB
1967	Saab 96, Saab 95 and Sonett (V4)	Safety reinforcement in the body, ignition system near the gearstick instead of behind the steering wheel	N/A	N/A	

1969	Saab 99	Self-repairing bumpers, headlamp wipers and washers	N/A	N/A	SAAB-Scania
1970	Sonett III		N/A	N/A	SAAB-Scania
1971		Heated front seats are introduced	N/A	N/A	SAAB-Scania
1972		Side-impact door beams.	N/A	N/A	SAAB-Scania
1977		Turbo	N/A	N/A	SAAB-Scania
1978	Saab 99 Turbo		N/A	N/A	SAAB-Scania
1979	Saab 900	Cabin ventilation air filter, ergonomics dashboard design, fascia impact pads	N/A	N/A	SAAB-Scania
1981		Automatic Performance Control (APC), and an anti-knock sensor	N/A	N/A	SAAB-Scania
1982		Asbestos-free brake pads.	N/A	N/A	SAAB-Scania
1983		Saab introduces the 16-valve turbocharged engine	N/A	N/A	SAAB-Scania

1984		Full automatic control technology in engine-fuel management	N/A	N/A	SAAB-Scania
1985	Saab 9000, Saab 90	Direct ignition, Automatic seat belt tensioners	N/A	N/A	SAAB-Scania
1986	Saab 900 Convertible	ABS in FWD Saabs	N/A	N/A	SAAB-Scania
1990		Light Pressure turbo, electrostatic cabin air filters	N/A	N/A	GM-Investor
1991		Trionic (EMS)	N/A	N/A	GM-Investor
1992			Anti-fog and ice on side windows	RE33981	GM-Investor
1993		Sensonic clutch			GM-Investor
1994	Saab 900 Mk 2	Night Panel, Saab introduces the 'Trionic T5.5' engine management system			GM-Investor
1995		Saab ecopower engine design			GM-Investor

1997	Saab 9-5	Active head restraints (SAHR), Ventilated seats, Asymmetric V6 Turbo			GM- Investor
1998	Saab 9-3		Environmental control for vehicles interiors	5810078	GM- Investor
1999			Climatizing interiors	5975422	GM- Investor
2000			Filler system protection	6033006	GM
2000			Combustion chamber	6029631	GM
2001			Sound suppression in wheels	6309026	GM
2001			SAHR	6199947	GM
2002	Saab 9-3 Mk2		Catalytic convert system for I.C.	6415600	GM
2002			Control panel	6421046	GM
2002			Method for operating IC engine	6438956	GM

2002			Combustion engine	6460337	GM
2002			Airbag assembly	6382660	GM
2003			Method for driving IC engine	Publication Number: 20030000211	GM
2003			Internal combustion engines	6595183	GM
2003			Preventing bearing-related noise in IC engines	6550441	GM
2003			Methods and device for safety belt	6637772	GM
2003			Cup Holder arrangement	Publication Number: 20030019991	GM
2004	Saab 9-2X		Combustion engine having exhaust gas recirculation	6742506	GM
2004			Ignition electrodes arrangement at an IC engine	6752109	GM

2004			Reinforced bend method	6830077	GM
2004			Spark electrodes with adjustable gap	6712033	GM
2005	Saab 9-7X	Biopower Concept and production	Sheet metal section	Publication Number: 20050183487	GM
2005			Pressure turbo IC combustion engine	6883311	GM
2005			Vehicle information and interaction management (SAAB+GM)	6882906	GM
2006			Driving workload estimation (SAAB+GM)	6998972	GM
2007			Crankcase ventilation	7168421	GM
2007			Reciprocating engine	7213545	GM
2007			combustion engine	7165402	GM

2008		Cross-wheel drive XWD, with eLSD.	Methods for regulating turbine power	7340896	GM
2008			Lifting device	Publication Number: 20080136140	GM
2008			Sheet metal section	Publication Number: 20080276774	GM
2008			Battery unit for Vehicle	7466102	GM
2009			Control of exhaust to a turbo	7509805	GM
2010	New Saab 9-5				Spyker
2011	Saab 9-4X	Low emission diesel engine			Spyker

Source: Innovations, Cole (2012), Patens list and numbers, Patents.justia.com (2016)

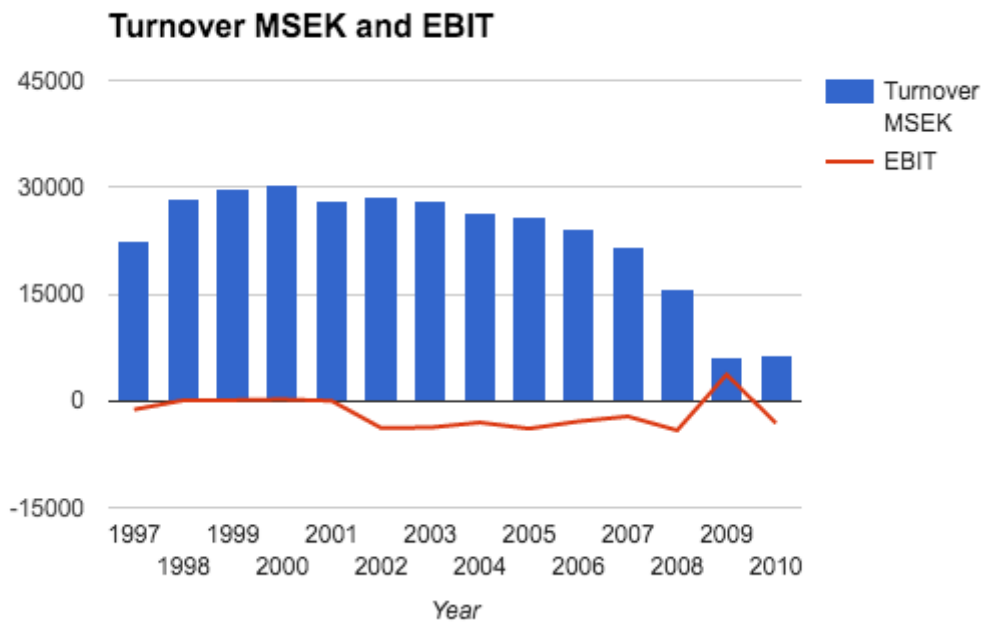
Appendix 4

Interview Guide

1. Could you please introduce yourself? Why did you decide to work/write about Saab?
2. What are, in your opinion, the key factors of success that historically guided Saab?
3. What were the unique competences that were differentiating the company from the competitors?
4. What were the true competitive advantages of this company?
5. Was Saab developing cars around the customers' needs or was it more a technology pushed type of car? (I.e. Were the needs of the customers the key element of product development or were the engineers' beliefs driving the product development?)
6. Did Saab develop a collaboration network for innovation? Or was it more internally R&D oriented?
7. Do you think that these factors evolved or changed under different ownerships? (GM, Spyker)
8. Who is the Saab loyal customer? What is the unique selling proposition that is attracting her/him? What about people not fitting this description? Would they consider buying a Saab?
9. When do you think that the "special" Saab feeling started fading in the Saab production cars?
10. Why do you think that Koenigsegg group was interested in the initial bid? Why did they eventually drop? Was the plan different from the one executed by Mr. Muller?
11. Was value created or destroyed during GM/Spyker era?
12. Why did Saab Automobile bankrupt in 2011? Why did they underperform financially for many years?
13. What in your opinion was the most valuable asset in Saab at the time of the bankruptcy, considering the high level of interest from many actors for the acquisition of the assets? Are you aware about specific assets able to justify this interest?
14. Are there any other automotive companies sharing the same path? If yes, why do you think so? Are there successful cases?
15. Where did key employees move after the bankruptcy? Which ones were re-hired by Nevs?

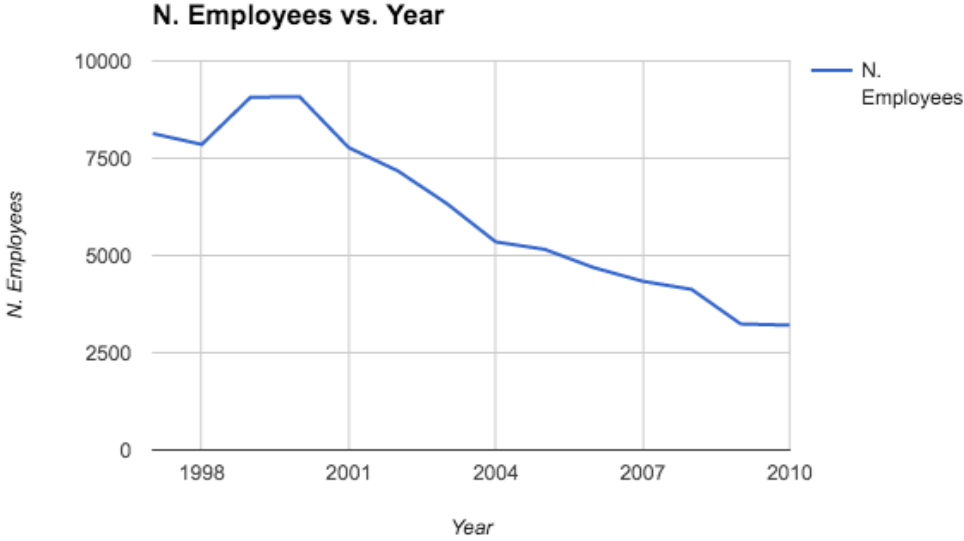
16. Do you think that Nevs could be able to re-create the Saab culture within this newly established firm? What are the key element to consider in order to succeed?
17. Do you think that the Phoenix platform could have played an important role in Nevs acquisition? Why do you think so? Are there any crucial IPRs that are valuable today for Nevs?
18. Considering this topic what was the residual value of Saab Automobile after the bankruptcy?

Appendix 5



Source: Saab Annual Reports

Appendix 6



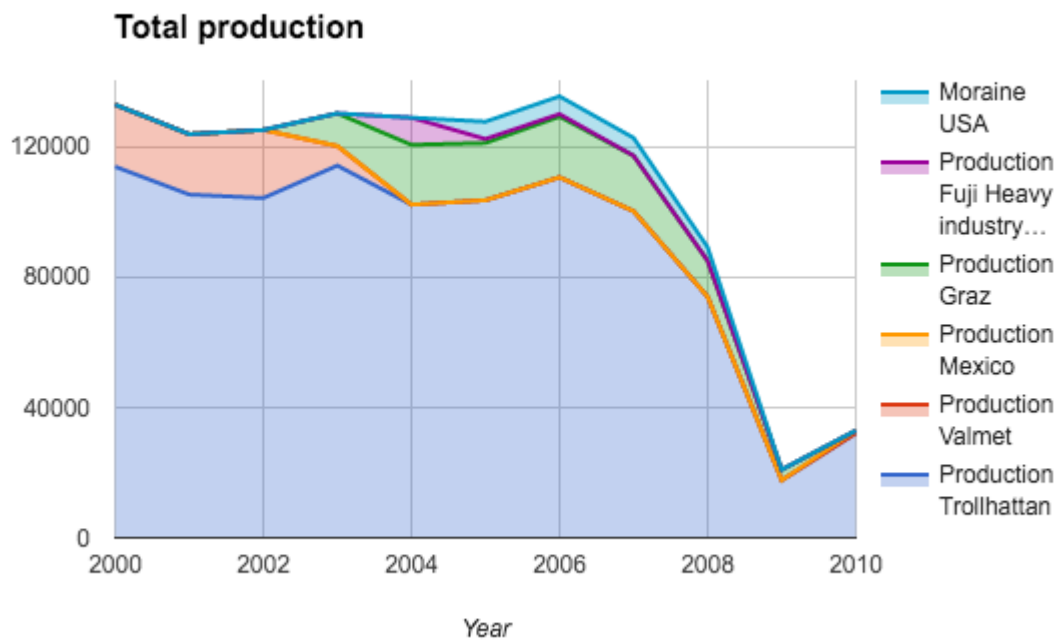
Source: Saab Annual Reports

Appendix 7

Production figures

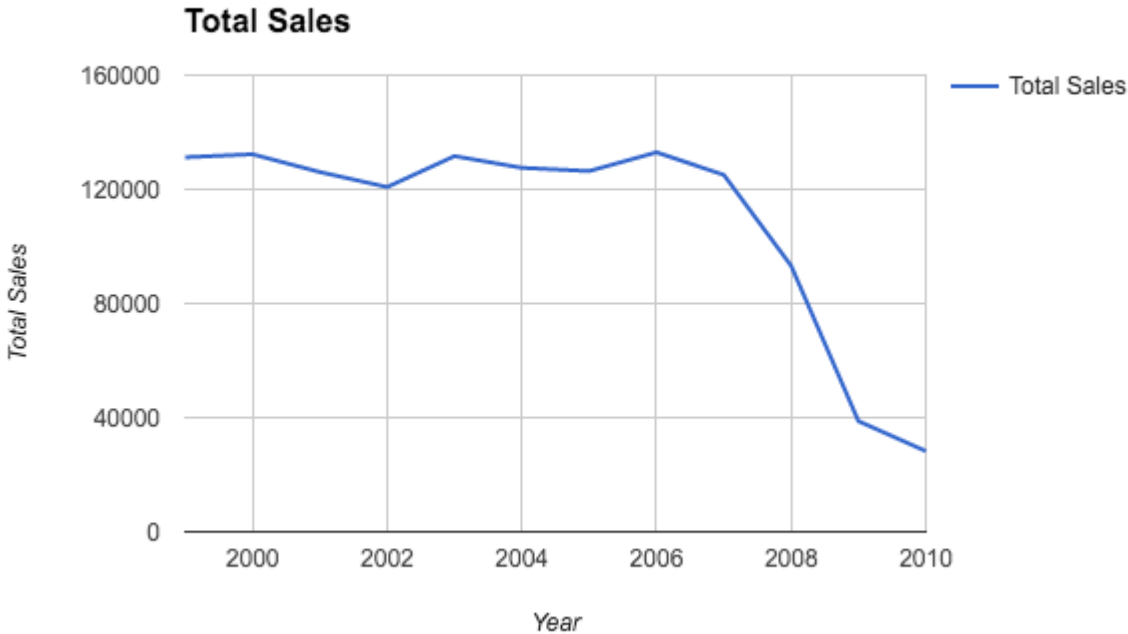
Year	Trollhättan	Valmet	Mexico	Graz	Fuji Heavy industry (Subaru)	Moraine USA
2000	113797	19006	0	0	0	0
2001	105243	18512	0	0	0	0
2002	104175	20870	0	0	0	0
2003	114120	6000	0	10000	0	0
2004	102148	0	0	18340	8338	0
2005	103494	0	0	17565	1218	5316
2006	110531	0	0	18611	768	5455
2007	100143	0	0	16997	0	5485
2008	73878	0	0	11047	0	4161
2009	17642	0	0	3250	0	0
2010	32048	0	814	0	0	0

Source: Saab Annual Reports



Source: Saab Annual Reports

Appendix 8

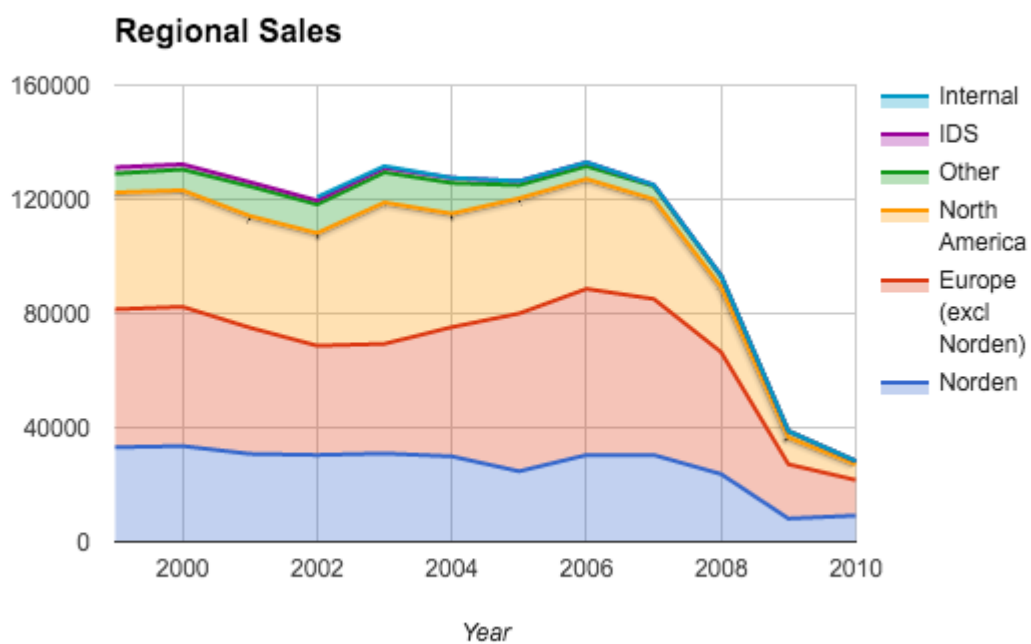


Source: Saab Annual Reports

Appendix 9

Year	Total Sales	Norden	Europe (excl Norden)	North America	Other	IDS	Internal
1999	131240	33118	48355	40938	6612	2217	NA
2000	132291	33549	48812	40835	7273	1822	NA
2001	126058	30800	44229	39155	10405	1469	NA
2002	120800	30412	38299	39491	10023	1376	1199
2003	131641	30955	38409	49549	10537	1597	594
2004	127541	29928	45276	39801	10730	1806	0
2005	126401	24708	55291	40372	4601	1429	0
2006	132957	30404	58223	38528	4453	1349	0
2007	125086	30407	54681	34967	4617	414	0
2008	93220	23729	42735	22910	3761	85	0
2009	38756	8125	19021	9461	2149	0	0
2010	28284	9198	12449	5472	1165	0	0

Source: Saab Annual Reports



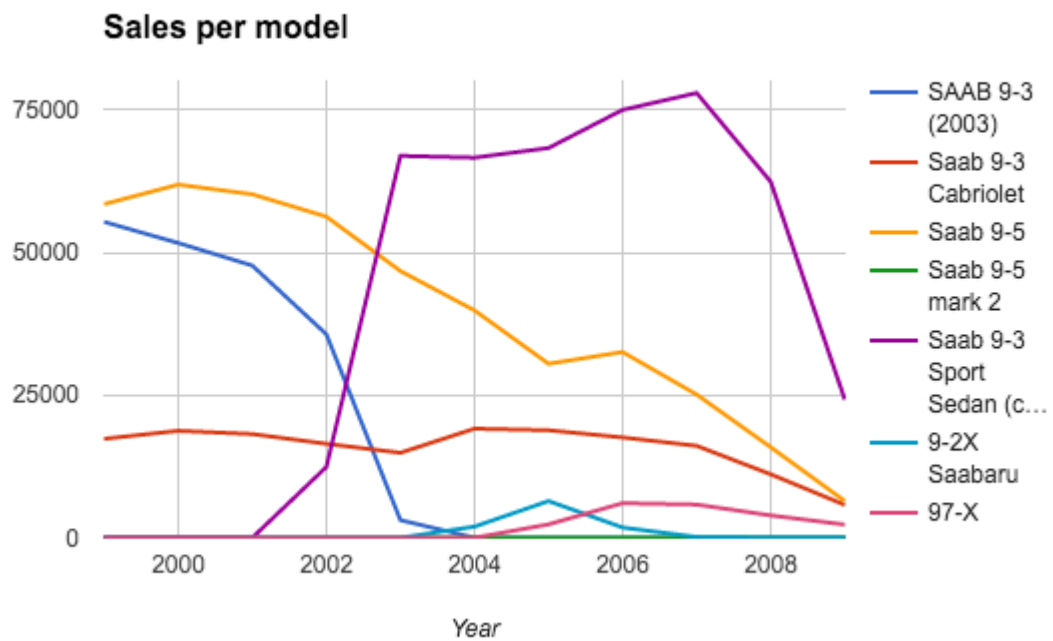
Source: Saab Annual Reports

Appendix 10

Year	SAAB 9-3 (2003)	Saab 9-3 Cabriolet	Saab 9-5	Saab 9-5 mark 2	Saab 9-3 Sport Sedan (combi from 2005)	9-2X Saabaru	97-X
1999	55348	17341	58459	0	0	0	0
2000	51649	18741	61879	0	0	0	0
2001	47697	18174	60187	0	0	0	0
2002	35656	16468	56269	0	12407	0	0
2003	3094	14889	46739	0	66919	0	0

2004	19	19117	39845	0	66604	1956	0
2005	0	18838	30489	0	68291	6435	2348
2006	0	17581	32547	0	74970	1799	6060
2007	0	16108	25096	0	77928	134	5820
2008	0	11125	15873	0	62383	0	3919
2009	0	5766	6445	0	24232	0	2313

Source: Saab Annual Reports



Source: Saab Annual Reports

Appendix 11

Year	Number of Volvo's sold	Market Share	Total Number of Cars Sold	Number of Saabs sold	Market Share
1997	51441	22.83%	225263	16783	7.45%
1998	53598	21.14%	253430	19556	7.71%
1999	64104	21.71%	295294	26303	8.90%
2000	54883	18.89%	290529	27103	9.32%
2001	48738	19.76%	246581	24652	9.99%
2002	50191	19.71%	254589	26052	10.23%
2003	49647	19%	261206	27044	10.35%
2004	53200	20.13%	264246	25085	9.49%
2005	54173	19.75%	274301	21273	7.76%
2006	55832	19.74%	282766	25624	9.06%
2007	63963	20.84%	306799	24884	8.11%
2008	47834	18.83%	253982	19871	7.82%

2009	41808	19.59%	213408	7036	3.29%
2010	53741	18.55%	289684	8655	2.98%
2011	58862	19.30%	304984	3484	1.14%
2012	52800	18.86%	279899	695	0.24%
2013	53939	20%	269599	14	0%
2014	61496	20.23%	303948	264	0.08%
2015	71221	20.63%	345108	128	0.03%

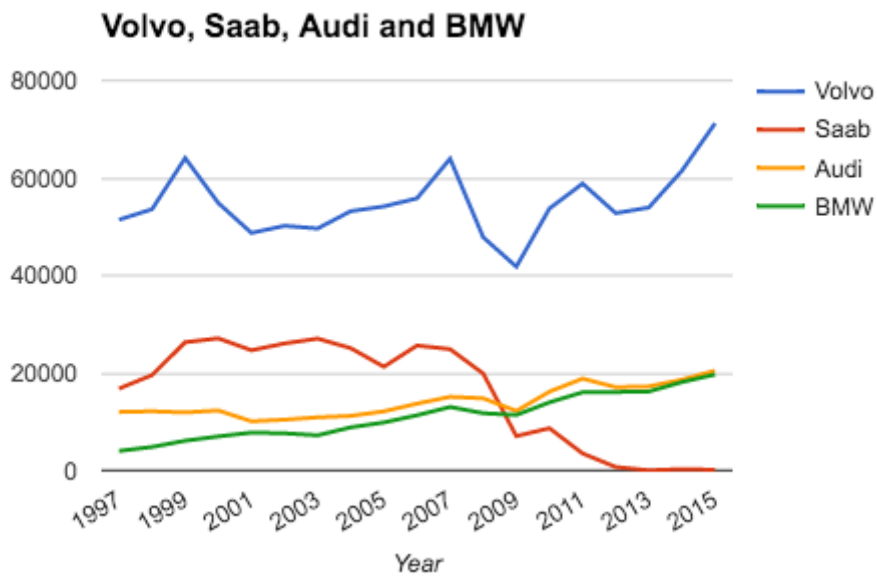
Source: Bilsweden.se (2016)

Cars sold (Swedish Market)				
Year	Volvo	Saab	Audi	BMW
1997	51441	16783	11989	3990
1998	53598	19556	12135	4811
1999	64104	26303	11897	6091

2000	54883	27103	12293	6972
2001	48738	24652	10082	7754
2002	50191	26052	10404	7616
2003	49647	27044	10894	7202
2004	53200	25085	11187	8835
2005	54173	21273	12117	9837
2006	55832	25624	13699	11316
2007	63963	24884	15099	13023
2008	47834	19871	14800	11735
2009	41808	7036	12193	11372
2010	53741	8655	16162	13967
2011	58862	3484	18835	16036
2012	52800	695	17082	16088
2013	53939	14	17238	16192

2014	61496	264	18613	18125
2015	71221	128	20463	19684

Source: Bilsweden.se (2016)



Source: Bilsweden.se (2016)

Appendix 12

Year	Ranking	Brand	Model	Cars sold
2000	1	Volvo	V/C/S 70	29859
2000	2	Saab	9-5	16142

2000	3	Volvo	V/S 40	14740
2000	4	Saab	9-3	10961
2000	5	VW	Golf	10898
2000	6	VW	Passat	10430
2000	7	Renault	Megane	9691
2000	8	Ford	Focus	8372
2000	9	Skoda	Octavia	7447
2000	10	Volvo	S80	7332
			Total	290529
Year	Ranking	Brand	Model	Cars sold
2007	1	Volvo	V70	22466
2007	2	Saab	9-3	14185
2007	3	Volvo	V50	11772
2007	4	Saab	9-5	10699

2007	5	VW	Passat	9325
2007	6	VW	Golf	9274
2007	7	Volvo	V70 II	9203
2007	8	Ford	Focus	8658
2007	9	Peugeot	307	6351
2007	10	Opel	Astra	6087
			Total	306794
Year	Ranking	Brand	Model	Cars sold
2008	1	Volvo	V70 II	22070
2008	2	Saab	9-3	12623
2008	3	Volvo	V50	11334
2008	4	VW	Golf	11198
2008	5	Audi	A4	7509
2008	6	Saab	9-5	7248

2008	7	Ford	Focus	6453
2008	8	VW	Passat	6184
2008	9	Skoda	Octavia	4752
2008	10	Peugeot	307	4711
			Total	253982
Year	Ranking	Brand	Model	Cars sold
2009	1	Volvo	V70 II	20532
2009	2	Volvo	V50	10974
2009	3	VW	Passat	8588
2009	4	VW	Golf	8497
2009	5	KIA	Cee'd	5989
2009	6	Ford	Focus	5227
2009	7	BMW	3-serie	5054
2009	8	Audi	A4	4796

2009	9	Saab	9-3	4430
2009	10	Toyota	Yaris	4150
			Total	293408
Year	Ranking	Brand	Model	Cars sold
2010	1	Volvo	V70 II	25591
2010	2	VW	Golf	12825
2010	3	VW	Passat	12145
2010	4	Volvo	V50	10311
2010	5	KIA	Cee'd	8163
2010	6	Audi	A4	6592
2010	7	Renault	Megane	6291
2010	8	Ford	Focus	6278
2010	9	Saab	9-3	6232
2010	10	Renault	Clio	5915

			Total	289684
Year	Ranking	Brand	Model	Cars sold
2015	1	Volvo	V70 II	28613
2015	2	VW	Golf	22779
2015	3	Volvo	XC60	14834
2015	4	Volvo	S/V60	14698
2015	5	VW	Passat	14392
2015	6	Volvo	V40 N	10333
2015	7	Toyota	Auris	6868
2015	8	KIA	C'eed	6726
2015	9	Skoda	Octavia	5519
2015	10	Audi	A6	5496
			Total	345108

Source: Bilsweden.se (2016)

Appendix 13

Ranking	2000	2007	2008	2009	2010	2015
1	Volvo	Volvo	Volvo	Volvo	Volvo	Volvo
2	Saab	Saab	Saab	Volvo	VW	VW
3	Volvo	Volvo	Volvo	VW	VW	Volvo
4	Saab	Saab	VW	VW	Volvo	Volvo
5	VW	VW	Audi	KIA	KIA	VW
6	VW	VW	Saab	Ford	Audi	Volvo
7	Renault	Volvo	Ford	BMW	Renault	Toyota
8	Ford	Ford	VW	Audi	Ford	KIA
9	Skoda	Peugeot	Skoda	Saab	Saab	Skoda
10	Volvo	Opel	Peugeot	Toyota	Renault	Audi

Source: Bilsweden.se (2016)

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