Improving Strategic Alliance Monitoring to enhance the Performance of Partners in the Airline Industry:

A case-study of The SAS Group

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Summary

Globalization influences state-owned carriers because the process increases competitive pressures and as a result leads them to enter into strategic alliances. The establishment of the alliance is one of the main tools that state-owned carriers facilitate in order to expand the market through a growth in their business network. Consequently they are able to serve a larger number of routes and therefore increase their passenger load factor. The main problem that we identified was difficulties in managing some of the airlines' operations and as a result the alliance failure rate was increased. The study highlighted the key factors that threaten alliance success. Hence, the question that we asked was how might airlines promote alliances and after they have entered them how might they be more successful. Hence the purpose - how might airlines improve strategic alliance monitoring in order to promote their chances of success?

To achieve this purpose we sought to explore strategic alliances within state-owned carriers, specifically the example of the SAS Group as the present research is conducted in Sweden. We aim to investigate what factors might negatively influence the airline alliance and prevent it from being successful and how airlines should improve the process of monitoring alliances.

As strategic alliances, which are part of strategic networking, of the airline industry significantly differ from other industries we recognize specific types of alliances by presenting typologies in the theoretical framework. The main part of the theory is related to discussions about airline operations or factors that are threatening elements to alliance success.

This is a qualitative study. We collected data through scientific articles about the airline industry, particularly about SAS, through 8 years of official SAS published reports (2000-2008). In addition we collected web material related to the global alliance “Star Alliance”, web material related to Aviation Associations such as IATA and undertook three interviews with managers of the SAS Group.

We analyzed the findings according to the triangulation method, as this is a case-study, looking specifically at the main factors which might threaten the success of the alliance and what should be included in the alliance monitoring as one of the main elements to measure its success. By this we present Key Performance Indicators (KPIs) or measures which should be integrated into the alliance monitoring in order to improve its efficiency.

Key words: airline industry, SAS, strategic alliance, airline alliances failure, airline alliances monitoring.
Acknowledgements

We would like to express our gratitude to the people who supported us in the research, advised us, provided us with explanations about the area or who simply encouraged us to work hard and finish the study.

We would like to thank our supervisor Professor Margareta Paulsson, who was always ready to help us, to share her significant knowledge in the area of business research. We appreciate that she found spare time even during her vacation period to guide the study to its logical conclusion.

We thank the SAS Group managers, who provided us with valuable information regarding airline strategic alliances. We appreciate their interest in our research, and their open and friendly way of speaking with us.

In the end, we want to thank our families and friends for their help and beliefs in us. We do appreciate the help of those students who guided us and shared their knowledge of writing the thesis in Sweden.

Best regards☺
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Chapter one-Introduction

1.1 Problem Background

The rise of globalization in recent years has affected different industries and led them to change their structure significantly (Mazzola, Bruccoleri and Perrone, 2009, p. 387). A company’s success now mostly depends on its ability to grow globally. Definitely we oversee a rapid growth in some industries which accept the global game and with this an increase in their competitive advantage. To remain competitive in today’s business environment firms are developing their business networks through alliances, subcontracting, outsourcing and franchising. (Evans, Campbell and Stonehouse, 2003, p. 338).

Business network development concerns particularly strategic networks of industries that often occur as combinations of internal and external business interactions. The amount of networking may differ in terms of the flow and/or sharing of services, resources and relationships in business. By this a company expands its knowledge base and improves existing resources such as: information, technology, skills and expertise. A global approach of strategic networking benefits firms from economies of scale, creating new job opportunities and supporting economic situation of a country. (Klerk and Kroon, 2008, pp. 25-27).

Strategic alliances are a form of strategic networking, enhancing management processes and embodying relationships in business to create and support a competitive advantage for an organization. (Klerk and Kroon, 2008, pp.25-26) Furthermore they allow organizations to attain growth opportunities and to compete around the world. The degree of success of a strategic alliance also depends on the size of the company, its resources, its market position as well as the business environment within which it operates. Strategic alliances entail the cooperation of two or more organizations in long-term, goal-seeking arrangements across various business functions, in which each side benefits from cooperative behavior and coordinating activities. (Klerk and Kroon, 2008, p. 25-26; Lau and Moon, 2008, p.343). Indeed strategic alliances are becoming increasingly prominent in the global economy. (Drucker, 1996).

Alliances open a “new door” for partners by reducing cost and coordinating activities: joint use of ground facilities such as lounges, gates and check-in; code-sharing or joint operation; block space sales; coordination of flight schedules; joint advertising and promotion; exchange of flight attendants. One of the main benefits which relates to carriers and passengers is that networking will ease travelling. The consumers will benefit by: minimization of the waiting time between flights, one check-in and baggage handling for several routes. (Park Jong-Hun, 1997, pp. 181-182).

Evaluation of strategic alliances brought new challenges into managing of alliances. To increase alliances’ success some elements were elaborated within managing process, such as: compatible culture, open communication, estimation of customer responses. One of the main element concerned monitoring of strategic alliances, which presents a performance of the alliance and its development level. (Thorne and Wright, 2005, p.386).
1.2 Problem Discussion

Incorrect management of an alliance or at least weakness in one of the managing areas might promote the alliance to fail. Studies in the area point to the fact that an airline alliance will lead to growth nearly as often as an alliance will lead to failure. (Evans et al., 2003, p.340). Normally state-owned carriers only announce part of their flights as “discontinued operations” that signals an alliance failure. Previous studies indicate that different factors threaten an alliance’s success and lead them to failure, but doubted that all alliance terminations can be considered a failure. Other studies investigated connections between the influence of particular factors in the alliance activity and its failure. The strategic alliance gives opportunity to grow and expand the business globally. Therefore, its instability affects an airline’s strategic network growth and affects the economy of a country. (Rajasekar and Fouts, 2009, p.94).

Nevertheless, one of the main aspects of the alliance issue was missed. We faced difficulties in finding information about the alliance monitoring procedure in the previous research, particularly in the airline industry. Similarly we had difficulty finding information on monitoring procedure measures, except estimation of revenue and costs of the alliance which is not enough when we are talking about strategic alliance success. Competition in the industry has been growing and therefore conception of the alliance success has more wide meaning than only the estimation of its profitability. (Thorne and Wright, 2005, pp.385-387).

Global competition emerged in the airline industry in the end of 20th century when all governmental restrictions, bilateral agreements (double-sided) agreements were discharged and airlines finally could concentrate on a customer and develop the industry. (Mazzola et al., 2009, p. 387; Evans et al., 2003, p. 338).

Recent liberalization of the European market increased competition and “pushed” airlines to reconsider their strategy, find new ways to compete and grow at the same time. Cooperation within developing countries is mostly based upon governmental agreements, between state-owned (or flag) carriers of one and another country. It allows them to use “air space” and major airports (or hubs) of the partner country. (Rajasekar and Fouts, 2009, p.94).

Airlines mostly use code-sharing agreements, which provide their customers with large numbers of routes and destinations. This sharing with other airlines within the alliance, promotes a competitive and cost-effective position on the market for said airline and enables them to achieve strategic objectives like sharing risk and the improvement of their organizational structure. (Evans et al., 2003, p. 338; Gulati et al., 2000, pp. 203-304).

As has been emphasized strategic alliances play a significant role in today’s business. Therefore an understanding of how they can succeed is important; observing a lack of information about the management of alliances to promote their success gave us the idea of looking into alliance monitoring and the options for its improvement. We shall therefore concentrate on analyzing strategic alliances of the airline industry, particularly of state-owned carrier’s airlines. We intend to analyze SAS state-owned carrier as it is a member of Star Alliance and also has other several alliances with: Blue1, Estonian Air, Widerøe, Braathens, Lufthanza, Air Baltic, Spanair. (SAS, 2010)
1.3 Knowledge gap

After undertaking the literature review we found that a lot of research has already been conducted in the area of airline industry alliances, referring mostly to the revelation of reasons that alliances fail. As a result the authors present the list of so-called failure factors or airlines’ operations and describe its influence. It is referred to studies: Evans et al., (2003); Kleymann & Seristo (2004); Oh and Pizam (2008).

Strategic alliances’ monitoring, which is a part of airline alliances’ operations, has not received as much attention. We are aiming to investigate what steps airlines have already gone through and should go through to monitor an alliance better, to increase its success and prevent its failure. By this we believe to contribute to the theory in the area of the airline industry’s alliances growth and stability. Mostly, all alliances have a long-term arrangement, the creation of the alliance, as mentioned above, has a positive impact on their countries economy.

1.4 Research Question

How might airlines improve strategic alliance monitoring in order to promote their chances of success?

1.5 Purpose of the study

The purpose of the study is to explore what factors or airline alliances’ operations lead to an airline alliance failure. We aim to investigate them carefully and find out how they could be improved. The main purpose is how monitoring, which is one of operational element of airline alliances, should be improved in connection with these factors. The study is concerned in particular with state-owned air carrier alliances failure. We intend to investigate The SAS Group alliances.

1.6 De-Limitations

This study is limited to the European airline industry, specifically Scandinavian Airline Systems (SAS). Therefore the results are specific to that market given the differing legislation surrounding the airline industry outside the European Union.

1.7. Definitions

At this stage it would be useful to demonstrate the definition of the key term and phrase in order to clarify specifically what is meant when it is used;

“Strategic alliances are a distinct form of entry mode that have been used as a low-cost means of gaining access to new markets and local infrastructure through cooperative arrangements for the joint accomplishment of individual goals”. (Rhoades and Lush, 1997, p.109)

1.8 Outline of the Study

Chapter 2

The chapter presents the theoretical framework of the study. In the beginning we familiarize the reader with the history of the airline industry as an introductory part of the review and present a brief explanation of an air carrier structure. Before discussion about strategic alliances we consider the main reasons why airlines enter alliances. It provides the reader with an understanding of what types of carriers engage in alliances and why. The next part of the review presents a discussion about alliances as the main
conception of the strategic network and the industry. It consists of different types of alliances based on some classical models of the strategic alliances in the industry. As we couldn’t find appropriate information about the alliance monitoring, we put attention on the main alliance failure factors which are described as the final part of the review. In the end we summarize all the material used in the chapter to show what conceptions of literature influenced on the development of the present review and what was found as important elements from the literature.

**Chapter 3**

The methodological chapter presents how the study was designed and conducted. We thoroughly investigated the philosophy and nature of research from different business research methods. The chapter also explains the reasons why we chose the subject and steps which led us to discovering the main problem. This is a qualitative study and we do believe it has a practical value. It is a case-study design, where we considered strategic alliances as an object and the SAS Group as a location of the object.

**Chapter 4**

This chapter includes empirical findings of the study. It consists of scientific articles about the airline industry, particularly about SAS, 8 years of official SAS published reports (2000-2008), web material related to the global alliance “Star Alliance”, web material related to Aviation Associations such as IATA and 3 interviews with managers of the SAS Group.

Firstly, we present information about the SAS Group for the last 8 years and familiarize the reader with SAS alliances. The findings are from a combination of web material from SAS and Star Alliance, and the transcribed interviews of our respondents. Furthermore, we consider factors which might threaten the alliance’s success. Here we present information from scientific articles related particularly to SAS, which explain the airline’s strategy and its cooperation with another airline within the alliance, web material from IATA Aviation Association (which explains how alliances are governed) and also information from the interviews. Additionally, we provide the reader with a summary of the findings.

**Chapter 5**

This chapter presents the analysis and discussion of the study. The discussion focuses on the SAS Group alliances and shows how they relate to different typologies of other studies. The analysis indicates the main factors which threatened the success of alliances. The results are presented in such a way as to answer the research question and demonstrate how the monitoring might be improved.

**Chapter 6**

Chapter 6 is a conclusion of the study. Here the reader will be able to understand how the research question and purpose of the study have been answered. The conclusion also shows possibilities to test the theory in reality and makes suggestions for further research in the area.
Chapter two-Literature review
In this chapter we reviewed the literature that is used in this particular study. The chapter goes; from the history of the airline industry and a brief explanation of an air carrier structure to a strategic alliance definition and alliances’ types, and finally to factors that threaten the success of alliances.

2.1 History of the airline industry and the “first sign” of the airline alliances
The airline industry has a complex and dynamic structure. In order to understand its organization we present the history of the industry as an introductory part of the review.

Aviation had played an important strategic part in the history of any country in Europe. The industry was controlled by governments of the European countries, because in those days the civil aviation was involved in the Second World War. The flag carrying airlines were associated with a country and national prestige. All airlines considered as governmental “representatives”. Most likely, this situation explains delaying of the development of the industry and using only bilateral agreements between airlines. Obviously, creation of other types of agreements was difficult in that period. (Chan, 2000, p.491).

In 1944 the Chicago Convention indentified so-called “air freedom points” beyond Europe, such as: the right to overfly states territories; land for technical reasons, for disembark passengers and so on. In 1954 the European Civil Aviation Community was established. The Community produced the agreement about air operations of charter airlines. Lately was presented another agreement regarding regulations in scheduled service. In 1958 some state-owned carriers like Air France and Lufthansa discussed to make a co-operation agreement that was a first sign of an airline partnership agreement. Negotiations in those days moved towards governments of both countries. Such circumstances caused complaints of the Civil Aviation Commission, which found governmental involvement into the process incompatible with the air transport policy. (Dearden, 1994, pp.15-18). Later the Commission removed restrictions and suggested freedom of entry to the airline industry. This caused development of the regional aviation, cheap fares and created a competitive market environment. In 1972 the Commission made the agreement within IATA (International Air Transport Association).

In 1984 governments of European countries determined “zone of reasonableness” where airlines could set fares free. The European Civil Aviation Industry was characterized mostly by state-owned national flag carriers that had about 50 % of the traffic. The Commission prepared fares setting, capacity sharing and revenue pools. In 1985 in France was first attempt to do cut price on air tickets by one of the travel agents that was prevented by French regulatory authorities. (Dearden, 1994, pp.15-18).

In 1991 the Commission established three main categories of the airline agreements: concerning planning of capacity, revenue sharing, consultation on tariffs; regarding IT systems; regarding ground handling services. Such actions slightly moved the airline industry towards the competitive environment, but in the same time the Commission and governments still kept controlling of fares. (Dearden, 1994, pp.15-18).

In 1993 the European airlines got freedom to operate due to the new regulations in the industry. Those actions turned airlines towards all licensed airline operations and also
opened industry to mergers. Finally, were removed all controls over fares and rates that
gave airlines opportunities to compete on the market. Norway and Sweden were
involved in the process in 1992 as well. The European Airlines responded to changes
shortly. They made partnerships (alliances) with each other that increased its revenue.
State-owned carriers continued to dominate on the main territories and occupied hubs
(major airports) of different countries. They were able to do it through joint ownership
of two main European airline’s IT systems: Galileo and Amadeus. The new changes
brought code-sharing agreements into the industry. The airlines used such agreements
within alliances and were benefited by: sharing routes, customers, markets. (Dearden,

The first strategic alliance, Trans-Atlantic alliance, was formed in 1980. By 1985
around 50 air carriers had already code-sharing arrangements. Airlines, which were not
entered alliances, endangered themselves, because in this case they occupied
uncompetitive market position. Global alliances acted through code sharing and
shareholding operations. The code sharing allowed an airline to sell seats on a partner’s
flight. This means that an airline normally had block of seats on another airline’s routes.
Partners in one alliance had as common as the individual goals to achieve. An airline
could spread its brandname, made growth and generated revenues through global and
local network. Since the late 1980’s airline strategic alliances have emerged and its
number has been increasing nowadays. (Morrish and Hamilton, 2002, pp.401-404; Fan,

2.2 Air carrier structure
Airlines structure consists of different types of air carriers and also services provided by
air transportation business. To present air carrier structure we used Huettinger (2006)
study. The study explains clearly the main two carrier types: state-owned and low-cost
carriers. It does not strongly involve the reader into complexity of the aviation industry.
Meanwhile, provides with information useful particularly for the present study as the
“object” of the study is the state-owned carrier.

Huettinger discussed mainly two types of air carriers. State-owned carriers, which
serve major airports, have return-ticket base, price strategy and mostly enter alliances.
In general, they orient on a business travelling and a passenger comfort, but also
provide reasonable prices for an “economy” travelling. State-owned carriers could
include cargo carrier service as a part of its business. (Huettinger, 2006, pp.227-228).

Low-cost carriers usually serve not major airports or airports of small cities because of
internal agreements with airports of these cities and because of occupation of hubs by
state-owned carriers. This type of carrier is normally privately-owned and has a single-
tickets strategy. They operate revenue by low cost tickets and sales maximization.
(Huettinger, 2006, pp.227-228).

The airline industry also has some other types of activities that have a positive revenue
income, such as: engineering, catering (meal on board), hotel service. Some airlines
prefer to contract these types of services, others keep them in-house. (Williams, 2005,
2.3 Why do airlines enter alliances?

There are some reasons for airlines to enter alliances and not perform alone on the market. According to Fan et al. (2001, pp. 350-351) a top five factors that drive airlines to enter the strategic alliances and lead to its growth are: 1) an increase of globalization in trade and air transportation; 2) an increase of intra-regional interaction; 3) economic incentives for an airline consolidation; 4) pace of liberalization in the air transport industry; 5) anti-trust concerns.

Competition in this area could increase due to globalization process, so in order to compete on the global market airlines should enter the strategic alliances. This helps them to capture a larger market by occupying other domestic markets through alliances’ agreements. Business class passengers, as most of airlines are oriented on them, are looking for airlines that have frequent flights all over the world. They are looking for easy and more comfortable travel. Economic incentives like high revenue and low unit costs are making airlines move towards the strategic alliances also. Moreover, after some deregulation in the EU, carriers are allowed to operate on the domestic markets of other countries of the EU. (Fan et al., 2001, pp. 350-353).

Park (1997) in his study explained majority of a “customer satisfaction”. Surprisingly, but most of passengers want to fly with a large airline which has a wide spread international network. Later, as mentioned above by Fan et al., (2001) large airlines showed orientation in their strategy towards a passenger. This also urged airlines to create the global networks in order to attract more customers and remain competitive. Another reason for airlines to enter the strategic alliances is that the bilateral agreements and specific air transport regulations, which were most common in the industry before, did not allow airlines to increase number of routes. Nowadays, by using code-sharing agreements airlines are able to extend the network, reach many parts of the world and keep cost effective strategy. (Park, 1997, p. 181).

A lot of previous research as Fan et al. (2001) study or Park (1997) study indicated a common factors of interest of airlines to enter alliances. The common reasons also described by Morrish and Hamilton (2002) as advantages for airlines, mostly for state-owned carriers, to join an alliance are characterized with: cost savings, access to the new market, growth, increasing of load factors, improving cost and economies of scale, sharing of traffic and facilities, competitive advantage. (Morrish and Hamilton, 2002, pp.401-404).

Airlines are obviously benefited by participating in the alliance. Morrish and Hamilton (2002, p.406) referred to their study to Youssef and Hansen (1994) research, where they described alliance between Swissair and SAS (alliance of two state-owned carriers). Comparison of data was done at the moment before the alliance was created and after. The analysis demonstrated that airlines increased its service and market concentration, especially due to connection through hubs. The advantages of the strategic alliances for airlines were also proved by the Gellman Research Associates (1994) study of two Trans-Atlantic alliances, where airlines significantly increased their profit.

Morrish and Hamilton (2002, p.406) also referred to the study of Oum et al. (2000) that was involved into the investigation of 22 international carriers and its network. Regarding the study global alliances influenced the performance of an airline stronger and sufficiently than local alliances.
Therefore, mostly state-owned carriers might enter the alliance as they more orient on a passenger satisfaction, on holding the competitive position and meanwhile on cost-savings. All this could be performed through business network increase, through strategic alliances.

2.4 Strategic alliances

A strategic alliance is the main conception of the airline industry and one of the aspects of a strategic network. Alliances in the aviation have specific types and are presented by some classical models discussed below.

2.4.1 Strategic alliances as a form of strategic networking

To present a theoretical value of the study we indicated a strategic alliance as a form of a company strategic networking. A company strategy is covered by the strategic networking. The strategic network connects business with its customers and provides interactions within business relationships. The strategic alliances combine company resources, corporate ethics, law and acceptance of partner’s demands. Klerk and Kroon (2008, pp. 26-27) study shows that strategic alliances have close connection to a strategic networking. Alliances can be weak or strong (provide passengers with more facilities and destinations or not), both play a very important part in a company success. They can be measured with the following strategic issues: the strength of the alliance, the size of the network, number of partners, diversity of partners mix, developing of alliances between different partners.

The strategic networking allows company to grow. According to Klint and Sjorberg (2003, pp. 411-413) a network can be classified as: horizontal, vertical or lateral networks. Horizontal network refers to firms from a similar industry. Vertical network refers to two firms which have dependant activities and join together to maximize productivity. Lateral network is a combination of both horizontal and vertical networks. Gulati, Nohria and Zaheer (2000, pp. 203-204) research identified a very intricate structure of the strategic networking. They stated that a strategic networking gives a firm access to information, knowledge, resources, markets and technologies. From 2000 the interest of research in the area of strategic networking was particularly oriented on joint ventures, blocks and strategic alliances.

2.4.2 Strategic alliances in the airline industry (definition and types)

We found several definitions for a “strategic alliance”. Most definitions focus on achieving common goals for partners or coordinating activities amongst firms by entering an strategic alliance. (Klint and Sjorberg, 2003, pp. 409-410; Gulati et al., 2000 pp. 203-204). The others focus on occupation new markets and increasing knowledge and capabilities through strategic alliances. (Rhoades and Lush, 1997, p. 109; Park, 1997, p. 181). The rest of it defines strategic alliances as a combination of the above mentioned factors. (Park and Cho, 1997, p. 155).

This paper focuses on the following definition of strategic alliances as it refers to the airline industry particularly: “Strategic alliances are a distinct form of entry mode that have been used as a low-cost means of gaining access to new markets and local infrastructure through cooperative arrangements for the joint accomplishment of individual goals”. (Rhoades and Lush, 1997, p.109).

The strategic alliances of the airline industry are very specific and they are needed to be considered properly by the following typology.
Typology of airline alliances (commitment of resources & complexity of arrangements)

The model of Rhoades and Lush (1997, pp. 110-112) presents the classification of different airline alliances, which are measured by two dimensions: commitment of resources (which cause unrecoverable cost) and complexity of an alliance arrangement. As a result, combination of these dimensions leads to assumptions regarding stability of the airline alliances. The stability of an alliance depends on level of resource commitment (the longevity of an alliance can positively reflect on resource commitment). Meanwhile, the complexity of an alliance can increase its instability. The model of Rhoades and Lush is a classical model. We found that less than 10 years old studies referred to the model. The same concerns the study of Park conducted in 1997.

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<tr>
<th>Commitment of Resources</th>
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<td>Blocked-Space Agreement</td>
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<td>Ground Maintenance</td>
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<td>Facilities Sharing</td>
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**Figure 1: Model by Rhoades and Lush (typology of airline alliances), 1997, p. 110.**

The model was established specifically for the airline industry. Figure 1 shows nine types of different alliances with varying degree of complexity and resources.

**Low commitment – Low complexity of arrangement (the most stable)** refers to a “code-sharing” type of an alliance. By reference to Burton and Hanlon code-sharing is a commercial agreement between two airlines. According to this type the airlines operate within the agreement, serve public flights on routes are provided by both airlines.

**Moderate commitment- Moderate complexity of arrangement** allows enter a “joint service” alliance, which provides airlines with a considerable amount of coordinated airline operations. This type of the alliance facilitates flexibility of both partners and
provides a significant amount of cost reduction, a complementary route structure and possibilities to blend airlines’ flights.

**High commitment - High complexity of arrangement (instable)** refers to an “equity governance” alliance, which presents exchange of some portion of equity or the acquisition of shares by one partner. This type of alliance gives a significant amount of financial resources as shares can be purchased or exchanged.

**Moderate commitment - Low complexity of arrangement** refers to a “blocked space agreements” type, which provides an airline with opportunities to “block” number of seats on routes of another airline. This allows airlines to share revenue and allows a customer use more destinations to travel. In this kind of agreement all responsibilities and risks, in case of low sell, lie on so-called “leasing airline” in the alliance.

**Moderate commitment - High complexity of arrangement** is presented by a “joint marketing” alliance, where airlines market itself together, because the cost of marketing is too high. The level of resource commitment is moderate as both airlines have some resources for the marketing campaign. The complexity of arrangement is high because both airlines need to cooperate to launch a successful marketing campaign.

**High commitment - Low complexity of arrangement** refers to “CRS (Computer reservation system)” type that allows airlines share or adapt a computer reservation system of the partner. The resource commitment dimension is high in this case, as an airline purchases the system from another one. This requires training and maintenance support. The complexity of arrangement dimension is low, because if a system works than there will be no interactions between the airlines.

**High commitment - Moderate complexity of arrangement (long duration)** is a “management contract” alliance type. This is a particular group of skilled individuals are accountable for a part of the alliance. The group can be either from one airline or a mix of both airlines. This type of the alliance ensures regularity in decision making process or guarantees a level of service. The resource commitment level is high as both or one of the partners provides the employees for the alliance. The complexity of arrangement is moderate as most of work produces by the top management team.

**Low commitment - Moderate complexity of arrangement** is a so-called “Insurance and part pooling” alliance. This is related to “the joint purchase of parts or insurance by two airlines”. (Rhoades and Lush, 1997, p. 111) This type of alliance maybe feasible for airlines that share operating actions, have similar destination structure and small fleets. This type of alliance is out of the high cost of insurance. This type of alliance provides a share of expenses between members that causes the low level of the resource commitment.

**Low commitment - High complexity of arrangement (default)** is a type of the alliance, which refers to a “baggage handling, ground maintenance, and facility sharing” services. As the name suggests this type of the alliance provides baggage handling and ground maintenance for both airlines in order to operate easily. The facility sharing agreement benefits the airlines by cutting costs. The baggage handling agreement can be helpful for airlines which have a passenger transferring from one airline to another one. The ground maintenance agreement can be an option for airlines, which look for a time effectiveness. Through this type of the contract airlines do time saving and serve passengers at non-major airports.
As already discussed above the most stable type of alliances (where cost factor is less important) is one that refers to a low level of resource commitment and complexity. This results in a very close and explicit purpose and does not consume costly resources. The most long lasting alliance is one with a high level of resource commitment and a moderate amount of complexity, because cost is the most important factor in this kind of alliances. A low level of the resource commitment and a high degree of the complexity of alliances are indicated as those which might have a default. Consequently, alliances with a high degree of interaction and a high resource commitment are likely to experience instability. This is obvious because airlines in this case could have a high level of interactions, resource commitment and complexity, which automatically might results instability. (Rhoades and Lush, 1997, pp. 112-114).

We intend to consider the SAS Group’s alliances and investigate its types. The common type of alliance is a “code-sharing” type. Nevertheless, airlines normally use some of above mentioned types or even mix them.

**Single and Multiple alliances**

According to Rajasekar and Fouts (2009) strategic alliances of the airline industry can be **single** and **multiple**. A single strategic alliance type is when a domestic airline makes a code-sharing agreement with one international carrier. A multiple strategic alliance has more than one member. This is a global alliance. Normally the industry presents strong and wide multiple alliances. For instance, Star Alliance Network. Indeed, a multiple alliance allows each partner within the network to perform better, to reach more destinations and get extra revenue easily than through a single alliance.

A strategic alliance performance depends on a correct choice of the partner and can be of different types: between competitors; between two airlines to improve sales; between two complementary partners. (Rajasekar and Fouts, 2009, pp.94-99).

Strategic alliances are characterized by wide cooperation and market expansion for each member. They benefit airlines by flyer program recognition, sharing of lounges, extensive code-sharing, coordinated schedule and a fare planning. At the same time all airlines within an alliance have a common aim of delivering the best travel opportunities to customers. All members of a multiple alliance, e.g., Star Alliance recognize one another’s frequent flyer programs and cooperate through code-sharing arrangements. Multiple airline alliances offer the exclusive membership to airlines through that they can join the largest international market to operate on. Competitive advantage of the multiple alliances is presented by: offering a customer opportunity to fly to any corners of the world; offering coordinated flight schedules to decrease a waiting time for transit flights; allowing airlines to extend the market with minimum investments. Airlines are allowed to enter and be a member only of one multiple alliance. As for single alliances, airlines can have several single alliances as through them carriers can expand the market on regional level. (Park, 1997, p. 181; Fan et al., 2001, pp. 349-352).
Complementary and Parallel alliances

Park (1997) in his study divided airline strategic alliances in two types: **complementary** and **parallel**. He defined complementary alliance as one “when two airlines join their existing networks”, when parallel alliance was defined as a “competition between two airlines” (Park, 1997, pp. 181-182)

Types of airline alliances significantly differ from strategic alliances’ types of other industries. Therefore, in the study used classical models of types particularly for the aviation industry. Despite the models age we do believe that alliances’ types haven’t been changed meaningly.

Nevertheless, the industry faced difficulties in management of alliances and as a result alliances’ failure was increased. Different reasons of an alliance failure were considered and discussed in the previous studies.

### 2.5 Airline alliances’ failure factors

By this study we investigate what threaten the success of the alliances, how the monitoring of the alliances should be improved. Consequently, we consider what factors account for an alliance failure by other researches.

Unfortunately we noticed that previous studies, considered by us, did not indicate proper suggestions for improvement of factors the same as had a lack information regarding monitoring. We do believe that investigation of a single alliance’s success or failure rather simple than investigation of a multiple alliance as their structure is different. According to Kleymann and Seristo (2004) below we show some major factors that might lead an alliance to its failure, mostly a single alliance. All factors are considered as airline alliances’ operations.

The first factor is a “**wrong partner selection**”. The end result of a partnership in the airline industry quite difficult to estimate. In the same time it is necessary to see the role of an airline partner before concluding the code-sharing arrangement as one of the typical agreement at present days. A crucial aspect is to remember that all airlines have freedom to operate and choose partner which could be a potential competitor in the future. Meanwhile, large airlines have more possibilities to find a “correct” partner as small airlines have risk to merge by a large partner. The reason of the alliance failure in this case could also related to: when one partner does not consider another one in its future plans; when one partner has more benefits from an alliance when another one just “ties” to agreement.

Another factor is referred to so-called “**governance structure**”. The airline industry has the intricate structure and airline alliances are required more time to monitor them in order to improve its performance. In practice, an airline’s governance spend more time to handle with legal documentations that are related to an alliance registration and management rather than build a daily management issues to increase the efficiency in a relationship with a strategic partner.

An airline maintains not only one alliance. Therefore, if the one of the partners decides to make changes within one particular alliance that could reflects on other alliances. This refers to a “**degree of integration and trust**” factor between groups. The risk in this case is difficulties to predict how such changes could affect an alliance in the future. The same as all new admissions of the alliance could bring changes to the airline
structure. This relates to an “organization’s commitment” factor of the alliance stability or instability. Additionally, changes here could be also provoked by external environment factor.

High level of a “Flows information” factor supports an alliance success the same as it could affect it with a negative side. This is related to a reciprocal using of databases or IT systems to measure an alliance performance. For instance, estimation of revenue’ share. (Kleymann and Seristo, 2004, pp. 179-189).

A “Performance evaluation” factor foresees measurement of an airline performance within an alliance as a separate item the same as performance of whole alliance in total. A “Managing cultural differences” factor is a major one of an alliance failure. In this case, an airline has to improve a multicultural management, by other words to hire foreign managers from different countries. (Kleymann and Seristo, 2004, pp. 179-189).

According to Oh and Pizam (2008) a “service membership satisfaction” factor is beneficial within an airline alliance. Meanwhile, service failure can affect organization and employees and be a reason for the alliance failure. Mostly, it touches multiple airline alliances, such as: Sky Team and Star Alliance. (Oh and Pizam, 2008, pp. 515-517). Multiple alliances offer its members a standardized procedure that allows airlines to provide consumers with number of different services and routes’ destinations. Unfortunately, it might cause some non-pleasant circumstances for customers and as a result gives an airline a “long list” of compensations and complaints. (Oh and Pizam, 2008, pp. 515-517). However, study of Rajasekar and Fouts (2009, p.97) showed that multiple alliances increase revenue and passenger load factor each of its member faster than single alliances. Rhoades and Lush (1997) study also appointed that a “code-sharing agreement” type (type within the multiple alliances) of alliances have the most stable organizational structure.

If summarize the previous discussion the general factors of the alliance failure are related to: a choice of the “wrong” partner; “governance structure”, trust and correct attitude of each partner; internal and external factors influence the alliance stability; low speed and quality of information flow; difficulties of the alliance performance measures; difficulties in managing cultural differences; consumer dissatisfaction.

Evans, Campbell and Stonehouse (2003, p. 340) said that an airline alliance has a measurement obstacles, especially if this concerns financial measurements. They considered that failure mostly occur because of a non-equal partnership or non-flexible operations within the alliance. Meanwhile, a “real” measure of the alliance performance stays “in the shadow” and it is easier to consider contract terminations of alliances as a failure.

Study of Evans et al. (2003) cross with Oh and Pizam (2008) research as both presented the alliance break-ups due to consumer dissatisfaction. Airlines are affected by competition pressure on the market that could lead to an alliance failure. Becker (2004, pp. 36-39) considered failure reasons, which are based on macro-level factors: economical, political differences; international regulations of the airline industry (that could vary especially if an alliance consists of partners from developed and developing countries). His study also referred to the discussion about choice of the appropriate partner and cultural differences as it already stated by Kleymann and Seristo (2004).
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<td>Chan, Daniel, 2000</td>
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<tr>
<td>Dearden, J.H Stephen, 1994</td>
<td>Air Transport Regulation in European Union” (1994), Journal: European Business Review</td>
<td>Airline industry complexity</td>
<td>Presentation of the airline industry structure, its history and development</td>
<td>Deregulation in the EU, UK and USA</td>
<td>The Licensing and Market Regulations brought EU airlines freedom to operate and enter alliances</td>
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<td>Fan, Terence, Vigeant-Langlois Laurence, Geissler Christine, Bosler Bjorn, Wilmking Jan, 2001</td>
<td>Evolution of global airline strategic alliance and consolidation in the twenty-first century</td>
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<td>Delphi Method was used to explore reasons influence the airline industry. Summarized airline alliances consolidation on macroscopic level. Qualitative study.</td>
<td>In order to compete globally airlines enter alliances. Reasons that influence airlines to enter the alliance lead to growth.</td>
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<td>Gulati Ranjay; Nohra Nitin; Zaheer Akbar, 2000</td>
<td>Strategic Networks</td>
<td>Knowledge about a strategic network importance</td>
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<td>Experimental design based on prior research where firms achieve a competitive advantage from external and internal resources</td>
<td>Complexity of a strategic network structure. A firm benefits through development of the strategic network.</td>
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<td>Huettinger Maik, 2006</td>
<td>Air Baltic and SAS – a case study in the European airline industry</td>
<td>Structure of a single airline alliance</td>
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<td>Klerk S.de &amp; Kroon J., 2008</td>
<td>Business networking relationships for business success</td>
<td>Types of business network</td>
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<td>The research based on multi-method approach Combination of qual/quant. methods. The purposive sample was used.</td>
<td>Business network consists of different types of network. Strategic network is one of types, where strategic alliance is a form of strategic network.</td>
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<td>Klint Mats B. &amp; Sjoberg Ulf, 2003</td>
<td>Towards a comprehensive SCP-model for analysing strategic networks/alliances</td>
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<td>Morris S.C. and Hamilton R.T., 2002</td>
<td>Airline alliances- who benefits?</td>
<td>Profitability of international airlines in connection with its membership in a global alliance</td>
<td>Benefits for airlines to enter alliances</td>
<td>Research based on previous conceptual, empirical studies about 4 major global airline alliances and its members</td>
<td>No conclusive evidence that international airlines can increase its profit by entering a global alliance</td>
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<td>Park Jong-Hun, 1997</td>
<td>The effects of airline alliances on markets and economic welfare</td>
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<td>The study is based on developing a model consists of two different types of alliances</td>
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<td>Dong-Sung, 1997</td>
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<td>Strategic alliances as a competitive strategy: How domestic airlines use alliances for improving performance</td>
<td>Airlines benefits through entering strategic alliances</td>
<td>Types of airline strategic alliances</td>
<td>Descriptive and statistic method.</td>
<td>Airlines are benefited by entering strategic alliances, which divide into different types.</td>
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<td>Rhoades Dawn L. and Lush Heather, 1997</td>
<td>A typology of strategic alliances in the airline industry. Propositions for stability and duration</td>
<td>Correlation of alliance structure and its stability and duration</td>
<td>Typology of strategic alliances (classical model). Definition of an airline strategic alliance</td>
<td>Qualitative study based on the survey by Airline Business reported 389 alliances in the global airline industry</td>
<td>Classification of different airline alliances based on two dimensions: commitment of resources and complexity of an alliance arrangement.</td>
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<td>Williams-Mackenzie-Peterm 2005</td>
<td>Aviatiion benchmarking Issues and industry insights from benchmarking results</td>
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<td>State-owned air carriers have other types of activity that positively influence an airline performance</td>
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<td>No explicit methods, knowledge and sufficient arguments and concepts from previous studies</td>
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<td>Campbell David, Stonehouse George, Houston Bill, 2002</td>
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**Table 1: The summary of the studies in the theoretical framework**
2.6 Literature review conclusion

As already mentioned above we presented the history of the airline industry and alliances in order to familiarize the reader with the industry. We investigated previous studies about the air carrier structure and found that most of them explained it with a quite intricate manner. To provide the reader with more suitable explanation about the structure specifically for this study we took into consideration Huettinger (2006) research. This is not present a complexity of the airline structure in details, but has a clearly stated description of it.

The literature review does not show a full information regarding International Air Transport Association (IATA, 2010) and strategic networking as this could make the research broader, whereas our aim was to narrow down the subject. Hence, we concentrated on choosing the relevant theories regarding air alliances particularly and factors that threaten its success. A reasonable amount of studies refer to so-called “failure factors”, but show a lack of information about the management of alliances, particularly monitoring. As a result, we presented a list of factors that will be discussed further with our respondents and considered in connection with the monitoring of alliances. Discussion in the literature review goes from explanation why airlines enter alliances to factors that threaten an alliance success. At this point was found out that lots of literature published during period less than 10 years mostly referred to old studies, such as Park (1997) study or Rhoades and Lush (1997) study that might be considered as classical studies.

Other studies consist of similar information that relates to benefits for airlines within alliances or factors of alliances’ failure. Obviously, problems that the airline industry experienced within past 10 years, like oil crisis or economic recession, could stop the speed of the industry development. We think this situation influenced the information flow about the industry expansion that is why we found a lot of similar information in scientific articles. Nevertheless, the literature review gave us valuable and “fruitful” understandings of the industry and also “link” to a problem. Mostly all factors could be considered as “internal” and refer to the alliance management problems. In general, the problem referred to difficulties to measure an alliance performance because of its complexity, especially by descriptive method as the present study is a qualitative study. Some researches, who investigated problems of the airline alliances, had doubts that all interruptions could be considered as a failure. Unfortunately, those studies that investigated by us did not present a clear view about the development of the alliance management. We had difficulties to find studies that referred to the monitoring of the alliances. Therefore, based on theoretical issues that we considered we aim to explore how the monitoring might be improved.

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Table 2: The summary of alliances’ failure factors
Chapter three- Methodology

The business research gives possibilities to understand what is happening in the organization, in the industry, what problems stay unsolved. A research provides suggestions how to improve the situation if this is necessary. “Research methods help design, create the study and give general of view how it was done.” (Bryman and Bell, 2007)

3.1 Theoretical Methodology

In the chapter we present methodological research methods used in the study; the research philosophy; design; analysis methods. This is supported by research techniques of Bryman & Bell (2007); Saunders, Lewis & Thornhill (2009); Creswell (2009); Ghauri & Gronhaung (2002); Yin (2003); Hair, Money, Page and Samouel (2007); Eisenhardt and Graebner (2007).

3.1.1 The nature of the research

The most interesting consideration of a research nature from our point of you refers to Saunders et al. (2009) is that a research usually combines business and management disciplines. The present study about strategic alliances in the airline industry related to Business Administration disciplines and therefore all supported materials according to methodological issues concern a research in business. The aim of the research in the business area is to provide findings, to develop knowledge. Meanwhile, a research in business should be clearly stated and provide the area in which the study was done with possibilities to use it in practice. However, this is a matter of arguments. (Saunders, Lewis and Thornhill, 2009, pp.5-7).

We agree that domination of scientific approach in the business area should be equal to its practical value as scientific studies in business should be possible to use in practice. Sometimes studies are presented in academic journals or databases where they unlikely to be found by managers. Therefore, this might cause a low spread of information from a researcher to an organization about new facts in any business area. As a result, it was found a lot of studies done with similar findings, argumentations and issues. Meanwhile, because of that we found the problem, which is not considered properly yet. According to Saunders et al. (2009) the main purpose of a research should refer mostly to one particular problem, in our case to understandings how monitoring of alliances in the aviation industry could be improved.

3.1.2 Theory of the research

“What comes first: theory or research?” as Ghauri and Gronhaung (2002, pp.29-30) stated that all research problems flow out from previous theories and are the base for the following development. Saunders et al. (2009) gives clear and logical understandings of a theory of the research. Meanwhile, Creswell (2009) and Bryman & Bell (2007) showed more well-structured explanations of two main theoretical approaches in the research.

According to Bryman and Bell (2007, pp. 7-15) a deductive theory represents connection between a theory and a research. This connection should be presented by hypotheses that are required to be deduced by empirical investigation and analysis. An inductive theory is opposite to a deductive theory. The inductive approach is required to imply findings into a theory. The term “theory” can be used in different ways. The most common way that is related to a qualitative study is a description and explanation of observations. The inductive approach allows investigation of previous research in the
area that helps to find a main problem and as a result a research question. The theory in this case emerges after analysis of data. (Creswell 2009, pp.57-58; Saunders et al., 2009, p. 490).

The purpose of the study is to explore strategic alliances of the airline industry. As mentioned in the introduction the purpose came from personal observations that the industry has difficulties in the present time that could affect the world economy. Apart from this we have personal interest in the following investigation as one of the researchers has background in the airline industry and therefore personal interest to investigate the problem. After consideration of the studies was found the main still unsettled problem refers to the monitoring of airlines alliances. This approach is related more to the inductive theory, where a researcher should be familiarized with scientific studies first and by this find what could be investigated more. After collection of data we present how the monitoring should be improved and create a new base (theory). Therefore, the inductive approach seems more appropriate in this context.

3.1.3 Methodological assumptions
We wondered what issues might have methodological assumptions? Have they got some practical use and outcomes? Saunders et al. (2009, pp. 107-109) explained that assumptions lead to a research philosophy. In other words, you should be aware that you use your own view of philosophy during the research process and it influences on the research development. Practical benefits from this lie in your understandings that world exists based on each individual philosophical position. The understanding of the research philosophy lies much more deeply in our mind. Most likely, good and clear explanation of this is: “Before you do something you need to think about the end result”. Therefore, we simply need to accept and consider assumptions in the research. In the study we present our view on a reality and it could be opposite of other people.

The assumptions refer to epistemological and ontological considerations. **Epistemological considerations** concern knowledge about social world. The main discussion here refers to understandings of possibilities to use methods of natural sciences to investigate social world. This refers to some internal positions, such as: positivism, interpretivism, realism. (Bryman and Bell, 2007, pp. 4-26).

**Positivism** is a position, which studies social world by natural sciences methods, but also use other principles like phenomenalism, deductivism, inductivism. **Interpretivism** is a position, which studies social world by contrast way to positivism. This is a matter of argument that social world and human beings actions are difficult to explore by natural science methods. **Realism** is a position, which relates with more ways to positivism. This provides view that natural and social sciences have a relevant approach to study social world. (Bryman and Bell, 2007, pp. 4-26).

**Ontological considerations** concern understanding of a reality. Understanding of what the social world exactly is? The social world is an external environment. This is creating by human beings actions. Ontology has the following positions: objectivism and constructionism. (Bryman and Bell, 2007, pp. 4-26).

**Objectivism** is a position, which says that “social phenomena” has an external meaning and independent of social actors. **Constructionism** is a position which says that “social phenomena” is conducted by social actors. It is performed by social interactions and has a “constant state of revision” and has to be constructed. (Bryman and Bell, 2007, pp.4-26).
The epistemological considerations mostly focus on knowledge, investigation about social world by natural science. We believe that natural science conception far from conception of practical use of the business research. Meanwhile, interpretivism position says that interactions between people are difficult to investigate by natural science. Therefore, the interpretivism position is closer to our study more than other positions as we do not use natural science methods to investigate the situation in the airline industry.

The problem of the study is related to strategic alliances’ success. Therefore, we accept “people within an alliance” as social actors, by their interactions the present situation in the industry was created. Therefore, by this we show “what the social world is”. This is closer to constructionism position of ontological considerations that we took into consideration.

3.1.4 Research design
According to Bryman and Bell (2007, pp.39-71) a research design shows interactions between individuals’ groups, its behavior within a special social area. A research design is presented by different designs, such as: experimental, cross-sectional, longitudinal. Each of the mentioned above designs are appropriate to different studies. In most cases the best business research is based on a case-study design. The case could be considered as an object has chosen by a researcher. The case-study design also connects with a qualitative research strategy, which we use. (Bryman and Bell, 2007, pp.62-65).

Saunders et al. (2009, pp. 146-147) stated that data collection techniques of a case-study combine: interviews, findings and documentary. It consists of multiple sources. The purpose of a case-study is to explore factors which could contribute knowledge. (Creswell, 2009, p. 115).

The present study explores reasons of airline alliances’ failure and how airlines should improve their monitoring to prevent it. The object of the study is strategic alliances. The SAS Group was chosen as a location of the study. The data collected from: scientific articles, particularly about SAS, web documentary of the SAS group, interviews with the managers of the SAS Group. Therefore we believe that our study refers to a case-study research design according to Bryman and Bell (2007), Saunders et al. (2009) and Creswell (2009) discussion.

We found reasonable Yin’s (2003, p. 17) approach to a case-study design. He stated that if a researcher can identify three possible answers on his research question then a case-study is one of the more appropriate for a research. Our research question is “How might airlines improve strategic alliance monitoring in order to promote their chances of success? According to Yin (2003) by conducting the research we also could find out: 1) do all factors mentioned in the previous studies threaten an alliance success; 2) major reasons or factors which could lead to an alliance failure; 3) actions or procedure of the monitoring that a state-owned carrier does to prevent a failure; 4) actions or procedure of the monitoring that is considering now by a state-owned carrier to prevent a failure; 5) actions or procedure of the monitoring that could be helpful to use, but difficult to establish.

A case-study leads us to understanding that a theory should be created, but not tested, and a sampling should be suitable for the particular study. Case studies can be single or multiple. Here we considered a single-case study, and our analysis and discussion are simply presented as a story with supporting evidence. The story transformed into the
theory that has a close connection to the theoretical framework and observations. The theory should be also completed by using different tables, descriptions of summarized evidence. (Eisenhardt and Graebner, 2007, pp. 27-29).

By this we believe that a case-study is more appropriate for the research. As mentioned we intend to consider particularly SAS state-owned carrier. The reason why we chose only one airline is that in Europe airlines operate according to IATA regulations. Therefore, rules are similar for all air carriers. In addition, we believe that consideration of one airline provides the study with more detailed and various data as the SAS Group is the largest state-owned carrier of Scandinavia and consists of several alliances.

3.1.5. Research strategy-Qualitative

Research strategy is presented by a quantitative and a qualitative research. The distinguishes between strategies are related to a consideration of how a research could be conducted, what methodological assumptions are appropriate to a research:

<table>
<thead>
<tr>
<th></th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory related to research</strong></td>
<td>Deductive (revision of the theory)</td>
<td>Inductive (creating a theory)</td>
</tr>
<tr>
<td></td>
<td>theory ➔ observations/findings</td>
<td>observations/findings ➔ theory</td>
</tr>
<tr>
<td><strong>Epistemological consideration</strong></td>
<td>Positivism</td>
<td>Interpretivism</td>
</tr>
<tr>
<td><strong>Ontological consideration</strong></td>
<td>Objectivism</td>
<td>Constructionism</td>
</tr>
<tr>
<td><strong>Nature of research</strong></td>
<td>Collection of numerical data</td>
<td>Presented by words rather than numbers</td>
</tr>
</tbody>
</table>

*Table 3: The differences between quantitative & qualitative research strategy (Bryman and Bell, 2007, pp.28-29; 11-14;154, 402)*

The qualitative approach of a data collection, its analysis and interpretation presents by words. The approach has more narrative structure and can include a case-study design. This differs from a quantitative approach where a researcher puts focus on a survey and an experimental research and use numerical data to conclude a study. (Creswell, 2009)

A qualitative data has a meaningful way and allows a researcher to investigate a case by a real manner. A researcher can express his own meaning of a study. (Saunders et al., 2009, p. 482)

The present study philosophy is close to interpretivism and constructionism positions. We do narrative research and concentrate only on strategic alliances. In the end, we intend to deliver our view on the problem, find answers on particular research question by analysis of the data and therefore create a base for further studies in the area. No numerical data or survey will be used. Our aim is to create a qualitative research by using inductive approach, methodological assumptions and nature of qualitative strategy.
3.2 Practical Methodology

3.2.1 Choice of the subject
The following reasons led us to the choice of the present subject. Firstly, one of the master course we took was related to a strategic networking in business, its creation and development. Therefore, it was obvious for us that we can develop the knowledge that we got already from the business program. We both are very fascinated by the airline industry as one of the most dynamic, unique and perhaps problematic one. We chose it as the subject for the study and as a big challenge for us personally. Additionally, one of the researchers had experience in the airline industry and attracted another one to the subject more during conservations and meetings.

Secondly, we both believe that despite difficulties in the industry we have a good chance to promote our career within it in the future.

At early stages of the research we tried to find out scientific information about strategic alliances and factors that threaten its success as most of the literature we used highlighted them as a main problem of the industry. Mostly, we could get more proper overview about this situation from books, such as: Evans et al. (2003) or Campbell et al. (2002), rather than articles. Nevertheless, at that stage we understood the necessity of explanation about types of alliances as most of books referred back to studies of Rhoades and Lush (1997) or Park (1997) and we returned to observation of scientific articles again. As a result classical models of airlines alliances’ types of mentioned above authors we used.

3.2.2 Preconceptions of the study
Values of preconceptions cannot relate only to a personal view of a researcher, it should also have some scientific values. Also values of a study could emerge during the research process. Because of the background in the airline industry one of the researchers was familiarized with a value of strategic alliances in airlines. Meanwhile, all scientific materials that we considered indicated the main problem of instability of alliances and their failure. Therefore, our personal preconceptions along with studies in this area raised the question why did previous research consider airlines operations within alliances and did not pay more attention to one of the alliances’ activity as monitoring. As this unsolved problem lie on the surface. By this we found a problem and our main research question where we aim to explore possibilities to improve alliance monitoring as one of the managing element of alliances and bring a value to the study. (Bryman and Bell, 2007, pp.30-31).

3.2.3 Data collection methods
The choice of a case-study design implies to use combination of a primary and a secondary data. A case-study does not have some specific techniques as a researcher has ability to create the study according to available literature and access to a company. Primary source consists of: interviews, questions, observations, documentary and analysis. Secondary data refers to collecting of information through: newspapers, journals, academic databases and so on. (Saunders et al., 2009, pp. 139-146).

A case-study design mostly associates with a location, for example some particular organization. In the present research is the SAS Group. Secondly, design requires an
object which has to be chosen by a researcher. In our study the object is strategic alliances. (Bryman and Bell 2007, pp. 62-64).

A case-study design consists of some types: critical, unique, revelatory or longitudinal. We believe that our study is more related to so-called representative or typical case, where we explore a case in the present situation of some particular organization. (Bryman and Bell, 2007, pp. 62-64).

We used in the research primary and secondary data. The secondary data sources such as: academic databases (Emerald Business Source Premier), USBE database, journals, books. By this we collected some of scientific articles refer directly to SAS and its alliances. For instance, Huettinger (2006) study. This describes cooperation between SAS and Air Baltic within the alliance. The primary data has been collected through 8 years of SAS web documentary reports, from 2000 till 2008 years. The group report of 2009 year was not published fully at the period when the research was conducted. (SAS, 2010). The primary data is consisted of the documentary from other organizations, such as IATA (The International Air Transport Association) and Star Alliance (IATA, 2010; Star Alliance, 2010). After the above mentioned data was collected and considered thoroughly semi-structured interviews were conducted with managers of the group as a primary data.

A semi-structured interview has a list of questions and an interview guide. Meanwhile, an interviewer has to be ready to rearrange order of the questions during an interview as some of answers are difficult to predict and new questions can emerge within the conversation. The interviews are should be transcribed and analyzed later. (Bryman and Bell 2007; p.474). The semi-structured interviews fit to the present study as a conversation could create a positive and confidential atmosphere between a researcher and a respondent. This kind of approach could also reveal objects and answers that were not outlined, but could be useful for the end result. Moreover, creation of structured and unstructured interviews for airline alliances could appeal discrepancy and bias in the research findings. This is the reason why we used a semi-structured interview in the research.

3.2.4 The research sample and respondents
At this stage we would like to return to discussion about a quantitative and a qualitative strategy. In case of a quantitative research you have to generalize your findings and use representative (reflects to population), probability (random selection) or non-probability (particularly random selection) sample. The qualitative research strategy has a goal to create knowledge rather than to generalize observations. (Bryman and Bell, 2007, pp. 180-201).

The present study will not be generalized. Therefore we intend to consider types of non-probability sample for interviews as a primary source along with web material related to SAS. As a secondary source we used data collected through scientific articles.

A non-probability sample defers to: convenience sampling (when a researcher choose a sample, which is simply available for him; this sample is commonly used in business research area); snowball sampling (when a researcher pays attention and makes contacts with one particular group of people, who in their turn have another contacts that can be available and helpful); quota sampling (this is used mostly in commercial research, market research or political opinion voting). (Bryman and Bell, 2007, pp. 180-201).
Business research methods also refer to so-called judgement or purposive sample, where items of the sample collected for a particular purpose. An example of this sample can be a group of people who have specific knowledge in the area of the study and can provide a researcher with exact information. (Hair, Money, Page and Samouel, 2007, pp. 181-182)

The sample of this research is a purposive sample. The respondents chose on the basis of their knowledge about strategic alliances within the airline industry. As one of the researchers used to work in the SAS Group we have an access to managers of the group. We intended to conduct more interviews than we did. Firstly, we did not get a reply from other respondents. Secondly, one of the respondents is a Vice-President of the department which is responsible for the monitoring of strategic alliances. We got full information from him the same as from other two respondents. Meanwhile, we admit that more number of respondents could provide us with more detailed information.

All information about respondents is anonymous. Below we present them, their background and experience.

**Respondent A - Senior manager (Sales and Marketing) for SAS representative in the Eastern Europe.** This interviewee has eighteen years of experience within the SAS Group. Her experience consists of different positions within the group. During eighteen years she used to occupy positions: passenger service, financial and business controller. As her current position is related to sales and marketing of SAS representative in the Eastern Europe she has knowledge about airline strategic alliances within the frames of the SAS Group’s alliances and on the local level.

**Respondent B: Vice-President of the department “Partners at SAS” (Sweden & Denmark).** This interviewee has seventeen years of experience within SAS Group, three years of which he worked particularly with one of SAS partner/alliance abroad. He used to have different positions within the group and worked with commercial business controlling, network and revenue, development of SAS strategic alliances/partners. He has a significant experience in the area of the airline strategic alliances.

**Respondent C: General Manager for SAS representative in Russia.** This interviewee has three years of experience within the SAS Group and knowledge in the area of airline strategic alliances.

**3.2.5 Interview guide**

A semi-structured interview is structured by the way of; when an interviewer has a list of prepared questions to guide the conversation. In the same time is unstructured as an interviewee can respondent by his own words. The semi-structured interview differs from unstructured and structured interviews with sample size, respondents, questions (in the form of interview guide). This type of interview could decrease a research bias because of its technique. However, a bias could occur due to omission of some questions during the interview. (Ghauri and Gronhaug, 2002, p.102; Hair et al., 2007, p. 197). Bryman and Bell (2007) and Saunders et al. (2009) also said about existence of unanswered questions in semi-structured interviews. Meanwhile, the semi-structured interview provides more free dialogue that could be beneficial.

We used the semi-structured interview in our study. The interview guide helped to follow interviews and be in the frame of the research. The guide is structured and divided into parts: respondent background, strategic alliances in the airline industry.
(goals, types), reasons of an airline strategic alliance failure, airline alliance monitoring, final questions. General questions are open-ended with some follow-up questions that are related to interviews of qualitative study and allow a respondent answer freely. (Appendix 1)

3.2.6 Conduction of the interviews

Business research foresees to conduct face-to-face interviews. Nevertheless, the qualitative study allows a researcher to find alternative ways of conducting interviews such as: internet or phone. A respondent can be simply unavailable due to business trips or other reasons, whereas a research has a time frame. (Bryman and Bell, 2007, p. 486)

The present business research conducted during summer period that normally is period of vacations. To speed the process and “catch” respondents on-time interviews were done through internet (www.skype.com). We believe that IT-technologies will definitely ease the way of interviewing in the future, as now the rhythm of life is faster compare even with past ten years. It also has cost saving issues for researches.

Unfortunately, our respondents preferred to have telephone interviews rather through skype. We phoned them through skype, but didn’t use camera. So, this could generate some bias as we could not see their reaction on some questions, but we reacted on some pauses during the conversation, which indicated that a question is difficult to answer.

The first interview gave us brief information about strategic airline alliances, helped to understand and clarify some aspects of the area. The structure of chapters (findings/analysis) was created after the interview.

The second interview provided us with more significant and relevant information regarding the research. Normally, in findings and analysis chapter the structure depends on the first interview. In our case, we had to reconsider the structure after the second interview. Moreover, we believe that our second respondent, because of his knowledge and experience of the area, supported us with full information related to our research question. The interviews were done through skype, recorded and transcribed. We also faced the situation when we needed to rearrange the questions during the conversation. Some of new questions also rose during the interview, some were skipped.

3.2.7 Data analysis

Data analysis could differ of the main research strategy either quantitative or qualitative. The quantitative analysis techniques present numerical figures by tables, figures, graphs and examine its connections. Qualitative data techniques allow to analyze data and to present the meaning of knowledge, to investigate the subject thoroughly in practice. Data collection in this case includes from small number of respondents interviewed with open-ended questions to more in-depth interviews. The interview of qualitative data is must be transcribed by words. The best way to reduce misinterpretation in this case is send your transcription back to respondents to check, as spoken and written language can be different. The qualitative analysis has two approaches: deductive (use of theoretical framework to create and analyze your research) and inductive (you do not need do identify theoretical framework, you need find connection between your data and question, theory rises from data collection and its analysis). The analysis process leads to some types:
**Categorising data.** The categories come from your theoretical framework or/and data collected. This type gives a structure of data analysis and help to state your argumentations clearly. (Saunders et al., 2009, p.415-500)

“Unitising” data refers to “units” of data, which can be words, sentences or paragraphs that fits to a particular category. This type helps to manage the analysis into more comprehensible form. (Saunders et al., 2009, p.415-500)

**Recognising relationships and developing categories.** The categories are needed to be reorganized to make them connected with each other. (Saunders et al., 2009, p.415-500)

The final stage is conclusion of the research, which emerges after consideration and explanation of categories of data. All these types can be used separately or as a combination. We intend to summarize data with triangulation method, when documentations, interviews, scientific articles or other sources are used to answer the research question. (Saunders et al., 2009, p.415; pp. 480-500)

The way of building a theory from a case-study includes using empirical evidence of one or more cases. The theory appears from combining relevant theoretical frames of the study with empirical data. A researcher uses their own logic and argumentations to develop a theory. The theory which is emerged from a case-study should be testable and naturally lead to the deductive research afterwards. A research question should be tight also with the theoretical framework. The theory should be inductively developed with the help of empirical findings. (Eisenhardt and Graebner, 2007, pp. 25-27).

In the study we used inductive approach to analyze the data. We analyzed and found connection between our theoretical framework, web documentaries, interviews, and presented it in the form of the text. During the analysis we categorized data after the first interview. As mentioned above we had to reconsider them after the second interview that gave us an easy follow structure of data and analysis.

### 3.3 Quality criteria of the research

To adapt more quantitative criteria as validity and reliability to a qualitative research can create difficulties for a researcher, the same as attempts to generalize the study. The alternative criteria for evaluating the qualitative research could be **trustworthiness** and **authenticity**.

We used **trustworthiness** criteria of quality, which is divided to four categories:

- Credibility (refers to submitting research findings to avoid misinterpretation)
- Transferability (qualitative findings have to provide a significance aspect of the research)
- Dependability (the study should be audited)
- Confirmability (researches have to act in a good and objective “manner” to avoid personal influences on the research) (Bryman and Bell, 2007, pp.410-415)

In the present study the interviews are based on knowledge of people who have sufficient experience in the airline industry. The interviews were recorded and transcribed. The secondary data is supervised and ethical considerations are followed within the whole process of the research. Therefore, we believe that the study has
quality of the trustworthiness criteria. Meanwhile, we had difficulties to adapt authenticity criteria to the study, because our respondents mostly have common view on the problem, also we suppose that situation in the industry needs time to be changed. Authenticity criteria refer to issues: does the research show a different view points? Does it help to understand social reality? Does it help to use social perspectives? Could it change the situation immediately? Influence of authenticity criteria on the research is controversial. (Bryman and Bell, 2007, pp.410-415)

3.4 Ethical considerations

We have taken that ethics should be a part of the whole research process. This statement refers to a correct behaviour of researches to individuals, organizations and to subjects which are part of the study. This concerns all chapters of the study from formulation of the research question to conclusion. General ethical issues are related to privacy of respondents, deception of respondents, confidentiality of data, reactions of respondents on questions (stress, discomfort and so on.) (Saunders et al., 2009, pp. 183-184)

Firstly, our primary data collected through web material of the SAS Group (annually reports), IATA Association, web material of Star Alliance, no other data was collected outside these sources. Secondly, information about our respondents, particularly their names are anonymous, whereas we agreed to write freely their positions within the group. Their answers were transcribed and sent them back for revision. Therefore we believe that the study is followed ethical considerations.
Chapter four- Empirical Findings

The data collection of the case-study consists of combination of primary and secondary data, such as: web materials (published reports) and interviews with the SAS Group as a primary source. Secondary data is presented by scientific articles, which are related particularly to SAS.

The chapter is presented findings and structures them with the following main parts: strategic alliances in the airline industry, influence of an airline alliance’s operations on its activity and airline alliances’ monitoring. The division is close to the literature review and interview guide and therefore easy to follow.

4.1. Strategic alliances in the airline industry

4.1.1 The SAS Group overview (2000-2008) and strategic goals of entering alliances.

The SAS Group annual reports we used includes description about the structure of the airline, its strategic alliances and other information to present SAS.

The Scandinavian Airlines System (SAS) was established on August 1, 1946 with shareholding in Norway (28.6%), Denmark (28.6%), and Sweden (42.8%). SAS is a largest state-owned air carrier of Scandinavia. It operates within the Nordic Region, Europe, US, Asia and the Middle East. The SAS Group has units in Sweden, Norway and Denmark. It has representatives in other countries and divisions: SAS International; SAS Aviation services and SAS Individually branded airlines (strategic alliances). The SAS strategic alliances’ main markets are Norway, Finland, Europe and The Baltic Region. (SAS Report, 2008, p. 3).

The year of 2000 was successful for SAS. SAS was able to capture a significant amount both of international and the Swedish markets. In 2002 SAS was among the fourth largest airline group in Europe despite the fact of downturn in the airline industry. So in order to stay on the market SAS shifted its focus from business travelers to leisure travelers and paid more attention towards partnerships and alliances. (SAS Report, 2000, pp. 20-45).

In 2003 the SAS Group due to increase in competition with “low fare” airlines made a new strategic decision. It lowered its price and became the largest provider of the “low-fare” travel. SAS introduced a new “low-fare” concept to cater the low-fare market which ran from Stockholm and Copenhagen to popular destinations in the Southern Europe. They were trying to move from a centralized system, where all units and divisions work jointly to more a decentralized system where business units work independently to improve efficiency. (SAS Report 2003, p. 5; SAS Report 2003, p. 32; SAS Report 2003, p. 46).

2004 year was marked with a fall in average revenue per unit, overcapacity of the market, record-high jet fuel prices that negatively affected the group. (SAS Report 2004; SAS Report 2005, pp. 4-20).
The table below shows strategic changes and improvement of SAS of the period from 2000 to 2005.

<table>
<thead>
<tr>
<th>SAS Group's strategic process of change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000s</strong></td>
</tr>
<tr>
<td>Highest costs in Europe (AC), - Numerous ticket rules, - Limited competition in Europe,</td>
</tr>
<tr>
<td>Limited accountability, - Strong position in Scandinavia, 6th largest European airline group,</td>
</tr>
</tbody>
</table>

**Table 4: The SAS Group’s Strategic process of change (SAS Report 2005, p.5)**

SAS, through its huge network, was able to gain a competitive advantage over others by having a strong, coordinated network with strategic alliances. (SAS Report 2006, pp.10-15) (Appendix 2). That led to a positive growth of the group in 2007, especially on the North European market. Meanwhile, oil prices increased and SAS had to sell assets and implemented cost-cutting measures. The main strategic focus of SAS at that period was to reduce costs and improve customer offerings. After conducting an enormous research among 2000 employees, 100 managers, board members and union representatives SAS formed a new strategy in June 2007. It was a long term strategy focused towards strengthening the market position of SAS. (SAS Report, 2007, pp. 3-9).

The strategy was built on the following principals: 1) air travel within Northern Europe; 2) concentration on airline operations within the group and its alliances; 3) competitiveness in all operations; 4) cost reductions; 5) profitable growth and new unique products and services offered to customers. In 2007 SAS concentrated on the development partnership with Air Baltic Airline and Estonian Airline in order to increase a revenue base and expand the market. (SAS Report, 2007, pp. 3-9; Appendix 3).

Year of 2008 was the most tumultuous year in the history of the airline industry. It was marked with a record high oil prices and financial crisis. SAS in order to survive changed its strategic approach. A new core strategy named “Core SAS” was launched with focusing on the following areas: business travelers, Nordic home market, lower cost base, efficient organization and a strong capital structure. The SAS Group decided to divest Spanair, Air Baltic and Estonia Air. (SAS Report, 2008, pp. 6-8; p.43).

Our respondents explained why SAS enters alliances and why this is so sufficient for the group despite all problems in the industry.

The SAS Group has numbers of advantages to engage itself into strategic alliances. All of them somehow lead to the one main strategic goal. Entering the alliance for SAS means to support the group with a strong network. (Respondent A).

Despite the airline industry difficulties the market expansion due to operations within alliances plays a great part for SAS. The expansion gives opportunities to be
competitive on the market and provides a consumer with more destinations. Need to remember that SAS is strongly oriented towards its customers. The main challenge for all airlines and for SAS to engage themselves into the strategic alliance is expand the network. Huge and strong network is a base for airline strategic alliances. (Respondent B).

Strategic goals of creating the alliance for SAS also based on promotion its brandname. This promotion could increase a customer base, provides share capital costs, share of costs for IT systems development and sales tools. (Respondent C).

4.1.2 The SAS Group’s strategic alliances

Star Alliance

Star Alliance provides a customer with worldwide “reach and smooth travel experience”. It was established in 1997. The main aim of Star Alliance was to build such a unique network, to develop services and create easy travel for passengers. (Star Alliance, 2010).

The member airlines of Star Alliance network are among the most respected in the world. In order to become member, all airlines must comply with the highest industry standards of a customer service, security and technical infrastructure. Nowadays Star Alliance includes the following 26 members, such as: SAS, Lufthansa, Blu1, Swiss and other airlines. (Star Alliance, 2010).

The SAS Group is a member of Star Alliance. The alliance supports only state-owned carriers and hubs. When you take SAS flight, you use a self-service electronic desk with a star-brand logo, where all passengers of SAS or other members of Star Alliance do check-in. This is a small piece of the alliance operations that a customer sees. Star Alliance cooperates with airlines through code-sharing agreements. It supports members with an access to a huge international network that is very important for SAS business expansion. This is a cost effective for airlines as they operate over the world by using Star Alliance’ facilities. (Respondent A).

Star Alliance’ members provide passengers with number of improvements and convenient facilities such as: online flight status, priority check-in, priority baggage, alliance lounge access, priority boarding, priority waitlisting, extra baggage allowance, travel to almost any destination of the world, faster transfer, flyer programs, upgrades, awards, provide Gold and Silver status end-to-end service for frequent flyers. (Star Alliance, 2010).

The network also has a various benefits to members. The star-shaped logo brand of Star Alliance makes customers know “wherever you in the world enjoy a smooth travel experience”. Star Alliance works through code sharing agreements with airlines that allows to members reduce cost due to: close location to each other in hubs, share of using new IT-technologies, building common facilities at airports, coordinating schedules and installing connection teams for faster transfers, provide customers with check-in or baggage drop service at “one desk”, share using of ground service, extend networks. (Star Alliance, 2010).
Star Alliance creates hubs in some countries and provides airlines-members with all necessary facilities to serve customers and increase revenue. All members introduce its own culture and brandname, meanwhile all are one airlines network and can benefit employees with discount programs on flights and hotel services. (Star Alliance, 2010)

The Star Alliance is “an umbrella” for all its members. Code-sharing agreements allow members to share their partner’s routes. Meanwhile, members within the alliance operate according to bilateral agreements. (Respondent B).

SAS has individually branded airlines (alliances), which are members of Star Alliance also. These are Blue 1 and Spanair. Spanair was mainly discontinued, but still as we are talking about the concept of strategic alliances, we can take Spanair as an example in this case. The individually branded airlines of SAS are also considered as a type of the strategic alliances based mainly on code-sharing agreements, joint service agreements. SAS has the alliance operates on a joint venture with Lufthanza, which is in its turn a member of Star Alliance as well. (Respondent B).

SAS also operates with its partners within alliances through price agreements and block-space agreement. It depends on the alliance. It allows to low capital usage/costs and to increase revenue through growth of the customer base. (Respondent C).

Apart from being member of Star Alliance along with other airlines, the SAS Group has other strategic alliances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of establishment</th>
<th>Main Routes</th>
<th>Other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanair</td>
<td>1990</td>
<td>Spain, Scandinavia</td>
<td>Discontinued operations</td>
</tr>
<tr>
<td>Air Baltic</td>
<td>1995</td>
<td>The Baltic Region, Scandinavia</td>
<td>Discontinued operations</td>
</tr>
<tr>
<td>Lufthanza</td>
<td>1995</td>
<td>Germany, Scandinavia</td>
<td>-</td>
</tr>
<tr>
<td>Air Botnia/Blue 1</td>
<td>1998</td>
<td>Finland, Scandinavia</td>
<td>Rebranded to Blue 1</td>
</tr>
<tr>
<td>Widerøe</td>
<td>2000</td>
<td>Norway, Scandinavia</td>
<td>-</td>
</tr>
<tr>
<td>Braathens</td>
<td>2001</td>
<td>Norway, Scandinavia</td>
<td>Merged by SAS</td>
</tr>
<tr>
<td>Estonia Air</td>
<td>2003</td>
<td>The Baltic Region, Scandinavia</td>
<td>In the selling process</td>
</tr>
</tbody>
</table>

Table 5: Strategic Alliances of the SAS Group

**Lufthanza**

The SAS/Lufthanza alliance was created in 1995 and it is a perfect example of how airlines reduce competition pressure. They have a code share on main routes within Germany and Scandinavia. They have a joint selling and actually build their own traffic for the last 10 years. The alliance became so powerful that even deters competitors. (Doganis 2001, pp.80-81).
Spanair

Spanair is the second largest airline in Spain which cooperated as a joint venture with SAS since 1990. Then in 1998, SAS owned of 49% of Spanair, 74% in 2002 and 95% in 2004. In 2008, 80% of SAS holding were divested. Today SAS only holds 20% of Spanair, 60% of stake was sold in order to focus on core business activities. (SAS Report, 2002; SAS Report, 2008, p.43).

Blue 1/ Air Botnia

The air traffic in Europe grew sharply in 2000 and SAS was able to take advantage of this by obtaining help from its partner alliances and from the wholly owned subsidiary Air Botnia. SAS with the help of Air Botnia was able to capture a considerable amount of market share in Finland (Scandinavian traffic) and between Finland. This led to a simultaneous increase in production to meet needs of customers. (SAS Report, 2000, pp.35-36).

Air Botnia and SAS made an agreement in 1998. In 2003 the alliance was rebranded to Blue1. This acquisition helped SAS in acquiring a significant share of the Finish market. Blue1 carried 1.8 million passengers in 2007. It flies to 24 destinations. Blue 1 has a market share of about 30% on Finnish domestic routes. (SAS Report, 2007, p. 37).

Widerøe

The partnership between SAS and Widerøe started in 2000. Later SAS acquired 33.1% of Widerøe, which was the largest Norway regional airline. The main aim behind acquiring for SAS was to become the leading airline on the Norwegian market. (SAS Report 2002, pp.40-50).

In 2008 the SAS Group has 100% shares of Widerøe, which had 2 million passengers and flew 273 flights daily to 37 domestic and 7 international locations. (SAS Report 2008, p. 41).

Braathens

One of the most important strategic approach of SAS were made during 2001, partnership with Braathens. This acquisition led to the stronger market position for SAS and also provided the company with an opportunity to further expand and grow. Through Braathens, SAS was able to capture a part of the Norwegian market as Braathens was Norway's largest domestic airline. The main focus of this alliance was to be more cost effective and expand into the Norwegian market and develop customer offerings. SAS had 100% of holdings of Braathens. In 2002 and later after seeing the huge potential SAS/Braathens was integrated into mainline SAS, and the name was changed to SAS Scandinavian Airlines Norges. (SAS Report, 2001, no numbers of pages presented in the report).

Air Baltic

Air Baltic is a state-owned flag carrier of Latvia, which operates on low-cost strategy. SAS and Air Baltic entered into the alliance in 1995. SAS held 47% of Air Baltic shares until January 2009 when SAS sold it to Air Baltic management. (SAS Report, 2008, p. 43) (Note: see chapter 4.2.1).
Estonia Air

SAS continued to grow its market and acquired 49% shares of Estonia Air, which was Estonia’s largest airline in 2003. The main focus of Estonia Air was to offer non-stop connections to major destinations in the Central and the Western Europe and to continue being the leading supplier of passenger transportation to and from Estonia by offering good connections through Scandinavian Airline hubs. This partnership proved to be good as numbers of passengers rose. As a result revenue had been increased. The increase was attributed to several factors: higher capacity, new routes, new pricing, and a good growth in Estonia economy. (SAS Report 2003, p. 46).

Nevertheless, in 2008 SAS was in the process to sell Estonia Air due to economic recession that hit Estonia and also because of the new strategy implemented in 2008 named “Core SAS”. (SAS Report, 2008, p. 43).

4.2 Factors which threaten the success of alliances

4.2.1 Strategic alliances’ partner choice

The creation of the alliance is possible between airlines of the same type. For example, between SAS and Lufthansa as they both state-owned carriers. A state-owned carrier cannot enter the alliance with a low-cost carrier as they have different goals and product offers. Their service level and quality also differ too much. One of the negative aspects of such alliances could be a brandname dilution. Only one possibility is sharing costs and purchase could be an option for such alliance. (Respondent A; Respondent C).

Meanwhile, it depends on what kind of low-cost carriers we are considering. For example, if it is Rynair airline then creation of the alliance is impossible due to significant distinction in strategy. We can look at this from the other side, Air Baltic has a low-cost strategy, but its model differs from the low-cost carrier model, because this is a state-owned carrier. Therefore, it is possible for Air Baltic to enter the alliance with another state-owned carrier, which is not supported a low-cost strategy. (Respondent B).

There are two main models of air carriers. So-called “Traditional Airline Model” which is related to state airlines and “Low-budget airlines” model.

Low-budget model airlines have a low cost strategy and its main focus is upon sales maximization. High operating cost in this model based on number of aircraft types in a fleet, the range of market served, remuneration packages, the level of service and traffic charges. The cost advantages of low-budget airlines compare with traditional presented by:

- “Operating advantages” 30 % lower
- “Product/service advantages” 16 %

(Huettinger, 2006, p.229).

Traditional model strategy has high efficient network strategy to provide a customer with more routes and destinations as possible. By this strategy each airline is able to support passengers with transferring them from hubs to other airports very quickly as market is competitive. The fares are high, but what is interesting that a “transfer passenger” can pay lower fee per mile compare with those who are travelling from hub airport. (Huettinger 2006, p.229)
Traditional model

Focus on first-class and long-haul passengers
Higher price-comfort combination
Adaptation of low-cost strategy (point-to-point service strategy; ticket price strategy)
Alternative is creation a low-cost subsidiary as a result operating of two models
Alliance between company with traditional approach and low-cost model
Turn-over per ticket around 5%

Low-cost service model

High frequency
High-density seating
High number of flight hours per plane
Point-to-point service makes high load factor
The density achieved by reducing turnaround times
Not direct flights -more hours (can be not attractive due to oil-price soar)
“No save time of customers”: no flying programs sent, short ticket-sales channel
Serving regional airports, eliminations of landing fees by airports as it good for them to serve high density flights, competition between regional airports-it’s a profitable network system
Turn-over per ticket around 20%

Table 6: Traditional & Low-cost models of the airline industry
(Huettinger 2006, p.229)

“No-frills” airline strategy of low-cost carriers shook the market and forced managers of airlines with traditional model of running reacted quickly. SAS and Air Baltic alliance is a perfect example of combining two different models. The state-owned airline SAS entered the “low-fare” budget market without changing the main traditional model, but through creating the alliance. Air Baltic is the Latvian flag carrier (state-owned carrier), but it has a low-cost strategy. Air Baltic focuses on business travelers, provides passengers with a full meal on board, business lounges in airports and offers “Euro bonus” system. It serves hubs such as: Heathrow (London) and Charles de Gaulle (Paris), Moscow, St Petersburg, Minsk, Kiev, but still it is a “low-budget” airline. Air Baltic had a good network carrier because of co-operation with SAS. The SAS Group decided to participate in developing the airline industry in the Baltic Region through strategic network, through building alliance with Air Baltic or Estonian Air. This gave opportunity for SAS to expand the business and use the “low-budget” strategy to increase revenue. (Huettinger 2006, pp. 227-239).

Additionally, the SAS Group made code-sharing agreements with Pulkovo Aviation (Russian Federation), AeroSvit Airlines/Donbassaero (both Ukraine) and Belavia (Belarusian) hat opened the gates to the Eastern Europe for SAS. (Huettinger, 2006, p.233-237).

SAS chooses a partner according to its main strategy, which is oriented towards a customer and the group’s main goals. The SAS group’s main goal is to create a profitable alliance. Therefore, the special department within the group (Partners SAS) analyzes the market and narrows it down to potential partners. A partner airline has to present a business portfolio, which is considered by the department. SAS considers the following as important when establishing new partnerships with other airlines. Firstly, a
partner must have a similar strategy to SAS. Secondly, SAS expands the market through alliances and therefore if they want to update their strategy and occupy another area of the market, then they need to create an alliance. This kind of business approach guides SAS when looking for a partner. Thirdly, a partner must have resources and opportunities that align with SAS and an interest to develop the mutual strategy of the alliance. Lastly, both airlines also have to work individually to maintain their own strategies. In addition, the industry has strong regulations that might influence the partner choice. Even though, SAS pays a lot of attention to establish a profitable and stable alliance, mistakes do occur and results in what is known as the ‘wrong partner choice’. This is perhaps something that is not detected immediately but rather after several years of cooperation. Obviously, the wrong choice of a partner would lead to financial instability in the alliance, extra costs and could cause brandname damage. (Respondent B; Respondent C).

4.2.2 Strategic alliances’ governance

The procedure of the alliance’s governance is centralized by “Partners SAS” department according to the airline industry standards.

The legal procedure of registering the alliance takes a significant amount of time and substantial number of legal documentations, because of specific regulations. It is difficult to say how the process should be simplified as it mostly involves the governmental level and associations such as IATA. (Respondent A).

Airlines normally have several alliances. If an airline does change within one alliance such changes could affect another one and create difficulties of an alliance’s governance. It is not easy to measure the effect and the appearance of such difficulties. SAS has several alliances on the central level, which are being governed by the Head Office in Stockholm. In addition to this, SAS has partnerships on the local levels, which are not a part of the interview. If changes occur within one of the individually branded alliances of SAS then most likely it is not generate significant circumstances. However, all alliances are linked together. Changes in the alliance could affect direction and focus of an organization and probably its size. There is no appropriate example of this, but such changes must be standardized in terms of service concepts and airline operations. (Respondent B; Respondent C).

If changes take place with airline like Blue 1, which has a code-sharing agreement with Star Alliance and bilateral agreement with SAS within the Star Alliance then it might create some situation. This is also might influence the structure of the organization, but this mostly refers to ticket fares and to IT systems updating. Therefore, sales and marketing departments, financial departments, all others could be involved in the process. (Respondent A; Respondent B).

As mentioned above the governance process of the alliances involve cooperation with IATA, which supports the airline industry. IATA improves understanding of industry benefits to national and global economy. It protects interests of airlines and provides with numbers of airline industry regulations, training, consulting and supports industry stakeholders. IATA also helps airlines with financial systems to maximize revenues. IATA’s goal is support airlines, simplify rules to help airlines to attract passengers and develop safety standards. The main following standards by IATA from the official IATA source (IATA, 2010) are presented with:
• IATA provides service as an intermediary between airlines and passengers as well as cargo agents through neutrally applied agency service standards and centralized financial systems.
• A large network of industry suppliers and service providers gathered by IATA gives solid expertise to airlines in a variety of industry solutions.
• IATA informs governments about the complexities of the aviation industry to ensure better, long-term decisions.

As for influence of cultural differences on an alliance, that is more related to decisions making process. For example, in Europe all decisions come from the top level, in Russia (where SAS has representatives) all decisions are decentralized to mid management level. SAS representatives have to accept the Head Office top level decisions, possibly with some corrections appropriate to legal system of some particular country. It could be difficult, but it does not affect alliances strongly. (Respondent C).

4.2.3 Strategic alliances’ operations
SAS is supported by IT solutions from Amadeus. This is related to all airline operations from ticketing till revenue optimization.

The question how IT systems of airlines within one alliance interact is not easy to answer. The airline industry doesn’t have a single IT system support. Some of the airlines, for example Lufthanza, have their one IT solution to simplify standards of the industry. SAS in its turn also participated in forming Amadeus. Obviously, not correct electronic interactions within an alliance could provoke non-flexible airline operations, such as: ticketing, sales, revenue. Mostly IT systems of partners within one alliance are frequently interacting for sales and booking. This is a problem that all alliances are facing. Under flexibility of the airline operations we could consider also a flexible share of aircrafts or staff as this is a very important aspect for airlines to provide an easy travel for a customer. (Lufthansa 2010, www.lufthansa.com; Respondent B; Respondent C).

4.2.4 Strategic alliances’ discontinuation
Consideration of an alliance failure should mostly goes from two perspectives: profitability and image of brandnames of both partners within one alliance. A strategic alliance discontinuation could be provoked by different circumstances, but our respondents were close to each other in their opinions about it.

For example, if we talk about alliances with Spanair and Air Baltic they were just not profitable. That was difficult to predict from the beginning. Possibly, if airlines intend to have a long-term alliance where terms play more important part, than a short duration could be considered as a failure. On the other hand, it depends on how much resources were spent on creating the alliance and what an airline earned from the alliance. Measurement can be different. In case of Spanair, the alliance was not profitable for SAS. The group tried to sell its shares for a long period, but market conditions did not allow get a salable partner. The time SAS spent played against it. The group got extra costs with the alliance and finally sold it to the Catalan government. (Respondent B).

As for Air Baltic, it is not correct to say that the alliance was not profitable in total. The main reason for SAS’ decision to sell down its stake back is that the Latvian government refused an option to privatize Air Baltic. (Respondent A)
If the alliance is not living up to safety/quality standards or not in line with company strategies the alliance could be discontinued. If the alliance operates in line with strategy, but with discrepancy in operational standards, then we would say that discontinuation of the alliance can be considered as a failure. Spanair and Air Baltic cases have different reasons to be discontinued. Spanair had more leisure focus and it was not profitable for SAS. The case with Air Baltic was lost because of political reasons when SAS gradually turned away from the Baltic market to the Scandinavian market. Air Baltic used political means to expand quickly on behalf of SAS. During the financial crises SAS had limit of resources to expand the business compare with Air Baltic, which was heavily subsidized by the Latvian Government. (Respondent C).

4.3 Airline alliances’ monitoring
“Partners SAS” department monitors the alliance activity. Monitoring of alliances mostly covered analysis of economy of scale and related to synergism, where both partners coordinate the alliance performance. The monitoring evaluates quarterly and yearly. The alliance successful performance is based upon its sales and a passenger load factor. The SAS group monitors alliances mostly from financial perspectives, but success of the alliance has more wide conception. After the conversation with our respondents we agreed that the alliance monitoring should be improved from aspects stated above. Additionally, success of an alliance could be measured from the point how many alliances an airline has and for how long period. (Respondent B).

Monitoring of the alliances go through partners’ meetings. SAS has business portfolios regarding each alliance that evaluates yearly. The monitoring of the alliances of the SAS group should be improved firstly in terms of evaluating deviations from the main target. Secondly, the financial measurements of alliances should be improved, means development of financial statements of each alliance, and it should be considered more detailed. (Respondent C).

<p>| <strong>Strategic goals of entering an alliance</strong> | Support the group with the strong network, by which SAS is able to gain a competitive advantage, increase revenue and expand the market. It promotes the brand, increases a customer base, provides them with more destinations. |
| <strong>Strategic alliances of the SAS Group</strong> | Star Alliance; SAS/Lufthanza; SAS/Spanair (discontinued); SAS/Blue1; SAS/Wideroe; SAS/Braathens; SAS/Air Baltic; SAS/Estonia Air |
| <strong>Strategic alliance agreements</strong> | Code-sharing agreements; bilateral agreements; price agreements; block-space agreements; joint-service agreements |
| <strong>Partners benefits</strong> | Star Alliance gives an access to a huge international network that is cost effective for airlines, because members use/share the alliance and partners facilities. It eases the travel experience for customers. The main benefits of the strategic alliances are: positive growth due to increase of a customer pool; share capital costs, costs for IT systems development/sales tools and routes. |
| <strong>Partner choice (state-owned and low-cost carriers)</strong> | Impossibility to create the alliance between a state-owned carrier and a low-cost carrier, because of different goals/strategies/service level and quality. It might generate a brand dilution. Meanwhile, the alliance is possible to create between a low-budget carrier and a state-owned carrier (Air Baltic/SAS). |
| <strong>Partner choice (procedure)</strong> | Partners SAS department is responsible for handling the procedure. The main principals for SAS in this case: the alliance should be in line with the company strategy and should be profitable. The department analyzes the market and considers airlines business cases. “Wrong partner” choice could bring brand damage and extra costs. |
| <strong>Strategic alliance</strong> | The procedure is centralized by Partners SAS department. IATA supports |</p>
<table>
<thead>
<tr>
<th><strong>governance (procedure)</strong></th>
<th>airlines with regulations. It takes certain amount of time because of complexity and “long” meetings.</th>
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<tbody>
<tr>
<td><strong>Strategic alliance governance (changes within alliance)</strong></td>
<td>All alliances are linked together. Changes in one alliance can affect another one. It is difficult to say what exactly it could be, but it cannot cross alliances programs and guidelines. It could affect direction/focus of the organization.</td>
</tr>
<tr>
<td><strong>Strategic alliance governance (cultural differences)</strong></td>
<td>No direct influence on an alliance</td>
</tr>
<tr>
<td><strong>Strategic alliance operations (IT; airline operations flexibility)</strong></td>
<td>Problematic question for all alliances. IT systems are frequently interacting for booking and sales. This might affect the alliance with a negative side. The flexibility depends on the routes and conditions.</td>
</tr>
</tbody>
</table>
| **Strategic alliance discontinuation** | Circumstances which lead to an alliance discontinuation: not profitable for at least one of the partner; political reasons; not living up to safety/quality standards and main strategy; when one of the partners are not or less benefited.  
An alliance could be considered as a failure: depends on resources “income and expenditure”; internal problems conflict with operational standards. |
| **Strategic alliance monitoring within SAS** | Partners SAS department monitors alliances (quarterly/yearly). The analysis based upon sales and passenger load factor. Central and local meetings. Evaluation of business cases. |

**Table 7: The summary of the empirical findings**

In the end we would like to mention that the SAS Group has internal sources and portal to get information regarding regulations and alliances of other companies.
Chapter five- Analysis and discussion

Our analysis use qualitative techniques, where we consider the triangulation method and investigate the problem in a real situation in the airline. Here we analyze collected data connected to our theoretical framework and research question. As a result, we indicated the main elements that could be included in airline alliances’ monitoring of SAS and thus promote the success of the alliances.

The structure of this chapter was reconsidered after our second interview. The chapter presents different parts, which are connected from one to another: from the analysis of strategic alliances of SAS to factors that might threaten its success, to our explanation of how the monitoring of alliances could be improved.

Due to the fact that we use an inductive approach of designing the research and our study is a case-study, we have created the theory, discussed previous studies, completed the analysis of our empirical evidence and described a new theory textually. The theory is complemented by two tables; one that summarizes the main threatening factors and the second one that presents improvements for the monitoring of the alliances.

5.1 Strategic alliances of the SAS Group

The SAS Group is a state-owned carrier. According to Huettinger (2006) a state-owned carrier, e.g., SAS serves hubs, mostly orients toward passenger comfort and engages into alliances. This approach allows the group increases revenue due to growth of the passenger load factor. Through strategic alliances SAS offers a customer more routes to travel and serves more customers and thus upholds its main strategy. As a result, by entering the strategic alliances SAS is able to grow, attract more customers, expand the market and with these actions build a strong network. (Gulati et al., 2000). By analyzing the respondents’ answers and combining them with our theoretical framework, we found that a strategic alliance combines resources and business needs of both partners and is a form of a strategic network. The strategic network of SAS is more related to a horizontal network that unites firms from the same industry. This allows SAS to grow globally within the airline industry. (Klerk and Kroon, 2008; Klint and Sjoberg, 2003). Our respondents determined a significant importance of the network growth as this gives SAS access to the global information and resources. Accordingly, the main aim of creating an alliance is to build a strong network. Despite that, we found other evidence that could challenge this opinion.

According to Fan et al. (2001) and Morrish and Hamilton (2002) competition in the airline industry rose due to the globalization process. Airlines in order to be competitive enter strategic alliances, increase its competitive advantage. One of the respondents said that alliances can promote an airline’s brandname better. (Respondent C). In other words, make the brandname recognizable in other countries. Apparently, this evidence leads us to challenge the idea that airlines enter a strategic alliance in order to be competitive. This differs slightly from the above stated opinion that strategic alliances are considered as a tool for expanding the business network of the airlines. Most likely, we could combine both of these opinions and say that airlines expand the market through alliances in order to be competitive.

In the empirical chapter we present different types of alliances of SAS that leads to the following discussion. Rajasekar and Fouts (2009) in their research divided airline alliances into multiple and single. Star Alliance, where SAS has a membership, is a multiple one. This alliance has a global strategy, wide network and more than one
member. In case of Star Alliance, it has 26 members. Park (1997) and Fan et al. (2001) said that multiple alliances are very beneficial for customers. Therefore, they are very appropriate for state-owned carriers that mostly have a customer orientation strategy. This kind of strategy provides passengers with opportunities to ease the travel, especially if they have a long journey. Consideration of multiple alliances and its cooperation with airlines is required in our opinion conduction of the separate study. The reason is that multiple alliances have more specific structure than single ones, which will be discussed further. Meanwhile, as we investigate the SAS Group, we need to present that it is a member of the multiple alliance. (Star Alliance, 2010).

“The Star Alliance is an umbrella for all members”. Airlines are operated within alliances on code-sharing agreements. (Respondent B). Rhoades and Lush (1997) explained type of the alliance based on this kind of agreement as the most stable. According to the code-sharing type airlines share routes within the alliance, provide a low level of commitment and a low level of complexity that make the alliance successful. As we did not find some evidence that show problems within Star Alliance and SAS we would agree that multiple alliances could be a great support for airlines. In the same time, SAS has a single alliance that also presents a high stability.

This is the cooperation with Lufthansa. By this alliance, which is a long-term one, two airlines build their own traffic within Germany and Scandinavia. Park (1997) in his study explained this type as a complementary alliance, when two airlines join their networks and create the one new network. The alliance based on the joint-service agreement. According to Rhoades and Lush (1997) a joint service alliance has a moderate level of complexity and commitment, but gives airlines good opportunities to coordinate operations and cost effective for them. Lufthansa/SAS partnership is a good example of such alliance.

Therefore, multiple alliances which are operated on code-sharing agreements and single alliances which are based on joint-service agreements are the most stable. Additionally, Lufthansa is a strong brandname. This leads us to validation that a correct partner choice is a very important factor in creating the alliance that differs from opinions of our respondents. As they not strongly agreed that a “wrong partner choice” factor could be a problem for the alliance, but we will return to this later.

Rajasekar and Fouts (2009) also talked about single alliances, when a domestic airline makes a code-sharing agreement with only one international carrier. Other alliances of the SAS Group belong to this type. There are alliances with Spanair (discontinued), Blue 1, Wideroe, Braathens (SAS Norges), Air Baltic (discontinued), Estonia Air. These types of airline strategic alliances are operated on code-sharing or joint-service agreements. (Respondent B).

The interesting moment that we found is about Spanair, which had a joint-service agreement with SAS. Regarding typology of Rhoades and Lush (1997) this type allows both partners to be cost effective when in practice SAS lost a lot of money within partnership with Spanair. Most likely, it happened because of oil crises. As concerns Air Baltic and Estonia Air, two countries were former republics of Soviet Union. This mostly refers to Becker (2004) study where he considered the alliance failure because of economical or political reasons. Consequently, external environment such as: oil, financial crisis or political circumstances might create a failure of the alliance. A joint-service type of Rhoades and Lush (1997) is presented by cost effective alliances. Nevertheless, our evidence stated above is opposite to this statement.
After the interview with VP of “Partners SAS” department (Respondent B) we were surprised to hear about bilateral agreements between airlines within Star Alliance. Chan (2000) and Park (1997) talked about bilateral agreements as about past of the airline industry. However, they are still used, but this type is not indicated in Rhoades and Lush (1997) typology. The SAS Group has also alliances on local levels as the group has representatives over the world, where price-agreements and block-space agreements are used. Price-agreements in its turn also not presented as a type of the alliance in Rhoades and Lush (1997) typology. So, we believe that the typology could be slightly reconsidered and updated. Meanwhile, we want to add that typology of Rhoades and Lush and Park’s division of airline strategic alliances dated by 1997 are still relevant.

In general, we revealed that multiple, single, complementary, code-sharing or joint-service types of alliances are beneficial for airlines and for SAS particularly. The findings are closely related to our literature review where main benefits are: access to the network, share costs/routes/facilities. According to Oh and Pizam (2008) even conception of “membership satisfaction” is already beneficial within the alliance that strongly represented in SAS and Star Alliance. One of the respondents perfectly explained connection between an airline customer orientation strategy and an alliance. (Respondent C). Alliances allow an airline to increase a customer pool, a passenger load factor and therefore increase revenue and in the same time provide a customer with more convenient travelling.

The definition of airline strategic alliances of Rhoades and Lush (1997) should in our opinion considered as a classical one as this indicates all aspects of an alliance: cost efficiency; global and local markets enter; mutual and individual goals approach.

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<td>Star Alliance</td>
<td>Multiple Code-sharing</td>
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<tr>
<td>Spanair</td>
<td>Single Joint-service</td>
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<tr>
<td>Air Baltic</td>
<td>Single Code-sharing/Joint-service</td>
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<tr>
<td>Lufthansa</td>
<td>Single Joint-service</td>
<td>Complementary</td>
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<tr>
<td>Air Botnia/Blue 1</td>
<td>Single Code-sharing/Joint-service</td>
<td>Complementary</td>
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<tr>
<td>Widerøe</td>
<td>Single Code-sharing/Joint-service</td>
<td>Complementary</td>
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<td>Braathens</td>
<td>Single Code-sharing/ Joint service</td>
<td>Complementary</td>
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<tr>
<td>Estonia Air</td>
<td>Single Code-sharing/ Joint service</td>
<td>Complementary</td>
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**Table 8: The SAS Group’s strategic alliances types (SAS, 2010)**
5.2 Improvement of alliances’ operations

Kleymann and Seristo (2004) investigated and presented number of factors, which could threaten the success of the alliance and lead to its failure. We discussed major of them by exploring scientific materials, web documentaries related to SAS, and interviews with the group.

Partner choice

“Partners SAS” department is responsible for monitoring the operations of the alliance. The department has a special procedure for analyzing and choosing an appropriate partner for the alliance. Each airline that is interested in joining the alliance presents its own business portfolio, which is considered by the department. The portfolios should align with the strategies and main goals of SAS. Alliances are possible only between equal partners that must have similar goals, product offers and models.

In contrast, it is impossible to create an alliance between a state-owned carrier and a low-cost carrier; for example, between SAS and Rynair airlines. However, in the same time Huettinger (2006) in his study explained why SAS could enter the alliance with Air Baltic despite its low-budget model, because Air Baltic is a state carrier that has a strategic approach that is similar to SAS. Therefore, we can say that scope of airlines that could be considered and analyzed by SAS is already narrowed down to state carriers only. Obviously, wrong partner choice could affect the alliance negatively and bring extra costs and brandname damage. Even though, we did not find the evidence of the alliance failure related to the wrong partner choice factor in our case-study, but as mentioned the single alliance with Lufthanza, which has a traditional model of strategy similar to SAS, turned out to be more efficient than the alliance with Air Baltic which supports a low-budget model of strategy. It is our belief that equal partnership could support the alliance better.

SAS had problems with Spanair and Air Baltic, but these alliances existed for more than ten years. In this particular case, taking into consideration the airline business portfolios, we would suggest a forecast of the external environment and economic situation of the home country of the potential partner. A continual evaluation should take place periodic during the duration of the alliance.

Strategic alliance’s governance

Another factor which might threaten the success of the alliance is it governance. Kleymann and Seristo (2004) stated that governance structure of airline alliances’ needs to be improved. Our findings fully supported this statement. We found that our respondents had difficulties to answer this question regarding governance due to their extensive pauses in their conversations with us.

The legal procedure of registering alliances takes a significant amount of time and effort. IATA helps airlines to handle the process of registration and acts as a mediator between the airlines and governments. It is difficult to imagine that just the registration process alone could delay “and alliance birth” in view of the fact that the complex handling of all legal documentations within the alliance have to be negotiated at each level. We fully agree with Kleymann and Seristo (2004) that this process of handling documentation by the airlines turns the attention from the monitoring to simple “paper shuffling”. We feel this distraction in the monitoring of the alliances could threaten the alliances’ success. (Respondent A; Respondent B; Respondent C).
In case of the discontinued alliance with Air Baltic, all difficulties are related to political reasons. This is not easy to answer how the problem could be solved, how the process could be eased for both airlines. We agreed with the respondents that said this kind of situations could appear in any alliances. Unfortunately, such circumstances cannot be solved only by airlines this could also involved IATA or governments of alliances’ countries. (Respondent A; Respondent B; Respondent C).

Kleymann and Seristo (2004) also indicated other two factors that could affect the success of the alliance. The “degree of integration and trust” and “organization’s commitment” factors, where changes in one alliance could affect another one within the same airline and change the organizational structure.

We did not find a strong evidence of this. Airline operations are standardized and all changes “come from above” should be standardized as well. All alliances are linked to each other therefore we could say that such changes (which are difficult to estimate) do not emerge spontaneously. Most likely, they could refer to all alliances. Meanwhile, we might accept some biases of such changes and its influence, but still cannot say that this strongly affects the alliance, because we do not have an appropriate example. This is related to “degree of integration and trust”. The “organization’s commitment” in its turn could be a strong measurement of success of the alliance. This factor could affect direction and focus of the organization and lead to reconstruction of some parts of the airline structure. (Respondent B; Respondent C).

Our respondents had doubts that “managing cultural differences” factor would affect the success of the alliance. This is a problematic question especially when Head Office’s centralized managing decisions do not fit well with expectations of employees from SAS’ international representatives offices. However, it is more a question of negotiations and couldn’t be considered as a reason of the alliance failure. (Respondent C).

**IT systems match and operations flexibility**

“Flows information” factor of Kleymann and Seristo (2004) referred to IT systems match, to operations of the alliances and could be a measure of the alliance performance. This question also raised a lot of pauses of the respondents and was definitely intricate for them. All our respondents agreed that IT-problem is always emerging if we are talking about any alliances. We would like to explain this proper and by simple words that the reader has no difficulties to understand it.

Firstly, all IT-programs are standardized regarding Aviation Associations (like IATA in Europe), law and etc. Secondly, booking and ticketing templates have to match with financial, sales or “passenger load factor” statements. This complicates by additional templates of IATA software when each ticket issue is controlled automatically and airlines could be charged by IATA in case of a wrong issue. This is the tiny part of the process. Now, it should somehow match with IT-system of another airline. The situation is tough. Some of airlines, e.g., Lufthanza create its own software to simplify the process and make it more save for the company. Obviously, this may influence the alliance success as could create a bias in financial statements. (Respondent B, Respondent C).

Other factor explored by us referred to Evans et al. (2003) study when the alliance success might be damaged by non-flexible operations as share fleets or staff on routes.
This kind of sharing or their non-flexibility might create difficult circumstances, but it has another point. Necessary to add that staff share surprisingly relate to IT-systems problems. That is why flights are served by staff of the state airline (partner) of that country where a customer has check-in. For example, in Russia SAS flights are served by Aeroflot as staff of Aeroflot familiar with IT-systems in Russia.

5.3 Alliances’ discontinuation
Evans et al. (2003) and Oh and Pizam (2008) stated that competition in the airline industry lead to the alliance terminations. We would agree with this as we found out that even market expansion and network growth through alliances are covered by the one reason is to be able to compete. So, we would say that competition pressure could be the reason for the alliance discontinuation as airlines simply do not have another opportunity to grow, but through strategic alliances.

Meanwhile, our respondents mostly turned into profitability of the alliance as the main reason of its longevity. For example, Spanair case was lost because of non-profitable alliance.

Air Baltic case as example is a very interesting to consider. Firstly, the alliance was interrupted due to political reasons. Secondly, for the last years SAS was less benefited by the alliance than Air Baltic. Political differences and non-equal benefits led to the alliance discontinuation as we can see. One of the respondents assumed that sometimes an airline has internal problems with its partner when operations contradict with the airline strategy or standards. (Respondent A; Respondent B; Respondent C).

An alliance could be discontinued by certain circumstances, but not all alliances terminations can be considered as a failure. Moreover, sometimes it is better to interrupt the alliance earlier than wait when it puts a company into debts. We believe that success of the alliance has to be measured as a cumulative result of the following principles: resources “income and expenditure”, brandname image, discrepancy of operational standards.

5.4 Alliances’ monitoring improvement
The alliance monitoring process is implemented by both partners and related to synergism conception. This goes through central and local meetings, evaluates yearly or frequently, depends on the alliance and situation. It is included analysis economies of scale, passenger load factor of each alliance (each business case).

The respondents agreed that alliance monitoring has a lot of “empty spaces” and required to be improved. All the factors or airline alliances’ operations stated above became interesting for our respondents and we settled that some of them could be developed better as it has a strong connection with the alliance successful performance. The monitoring as one of main alliances’ operation now is processed mostly from financial perspectives and level of passenger load factor. It should be more detailed as the alliance success has more wide conception.

The problem in this case is related to so-called measurement obstacles. As Evans et al. (2003) noticed that a “real” measure of the airline alliance is difficult to reveal. Klerk and Kroon (2008) for example, stated that airline alliances should be measured regarding its strength, size of network, number of partners. (Respondent B; Respondent C).
According to the collected data we summarized evidence and suggest some improvements for airline alliances’ monitoring. This goes from investigation of some airlines’ operations development to measures that could be included in the monitoring of alliances. Additionally, we would say that simplification of an alliance governance structure and solutions for IT-systems might be done in the future. Most likely, this is already considered by IATA. In the following table the reader can find what elements of airlines’ operations should be improved.

**Table 9: Alliances operations’ improvements**

| FORECAST | - External business environment  
|          | - Economical situation of a partner’s country |
| PARTNER CHOICE (BUSINESS PORTFOLIO) | - Consideration of number of alliances a potential partner has and its duration |
| IT-SYSTEMS (INFORMATION FLOW FACTOR) | - Solutions for improvement (together with IATA and a partner) |
| CULTURAL DIFFERENCES | - Centralization of decisions (Head office) |
| AGREEMENT | - Adjustment to agreement regarding early interruption of an alliance due to its unprofitability for one of the partner |
| MONITORING | - Financial measures improvement  
|          | - Measures of monitoring improvement |

We suggest the SAS Group should improve its monitoring according to KPIs related to:

**Table 10: Alliances’ monitoring KPIs**

| CUMULATIVE ANALYSIS OF KPI: | - REVENUE  
|                            | - SALES  
|                            | - PASSENGER LOAD FACTOR  
|                            | - BRANDNAME IMAGE  
|                            | - RESOURCES “INCOME AND EXPENDITURE”  
|                            | - OPERATIONS FLEXIBILITY  
|                            | - CORRESPONDENCE WITH A COMPANY STRATEGY AND GOALS  
|                            | - ORGANIZATION’S COMMITMENT  
|                            | - ALLIANCE DURATION  
|                            | - NETWORK GROWTH |
Identification of measures:

**Revenue** indicates turnover, income from sales

**Sales** indicates commercial activity

**Passenger load factor** indicates profitability of different routes, average loading factor

**Brandname image** indicates reliability and loyalty of the airline within the alliance

**Resources “income & expenditure”** indicates profitability of the alliance

**Operations flexibility** indicates different levels of the alliance activity

**Correspondence with a company strategy and goals** indicates and control direction of the alliance

**Organization’s commitment** indicates an alliance influence on organizational structure

**Alliance duration** indicates stability of the alliance and its ability to adapt the external environment

**Network growth** indicates the level of the market expansion and its significance

Table 9 shows the main factors or alliances’ operations, which are required to be improved in our opinion after we discussed them with the respondents. The first factor is related to study of Becker (2004) where he stated failure reasons on macro-level factors refer to economical or political reasons and presented in the table as forecast. The following operations such as considering of business portfolios of other airlines, IT systems improvement refer to Kleymann and Seristo (2004) factors: “wrong partner choice” and “flows information”. As for factor, which is presented by the same author as “managing cultural differences”, we did not find a strong evidence of influence cultural differences on alliances’ performance. Nevertheless, we believe that centralization of making decisions could simplify communication between units. We made one suggestion regarding consideration of agreement between partners that is from our point of view slightly related to the “degree of integration and trust” factor. The last operation that is needed to be improved is monitoring. We included it in the table because the evidence showed lack of information about monitoring procedure. Hence, as the research question refers to improvement of the monitoring of strategic airline alliances we suggested measures for the monitoring procedure. This includes already existed measures such as: revenue, sales, passenger load factor. We supplemented them with other measures came from our observations and analysis. We recommend use them cumulatively for monitoring an airline alliance success.
Chapter six- Conclusion

The following chapter is summarized analysis of the empirical findings. It presents also limitations and suggestions for further research.

6.1 General conclusion

The purpose of the study was to explore how airlines might improve their alliances monitoring in order to perform its success. Firstly, we investigated some factors or operations within the alliance that may cause a failure. We also discussed them with the SAS Group. At the final stage we agreed that problematic alliances’ operations which indicated in the study as “failure factors” should be reconsidered and improved. One of those factors is monitoring as we found lack of information regarding it in previous study the same as in our evidence.

In the analysis part we presented suggestions of such improvements. As we expected the alliance monitoring of the SAS group mostly consists of review of the passenger load factor and revenue estimation that would not present a full picture of the alliance activity. We also indicated some measurements that would be helpful to use to monitor alliances, such as: brand image; resources “income & expenditure”; operations flexibility; correspondence with a company strategy and goals; organization’s commitment; alliance duration; network growth. As we agreed with our respondents that success of the alliance has a more wide conception.

In the case-study research a theory develops after combination of theoretical frames and observations, it should have connection with a research question and possibilities to test it in practice, especially if a research is a business research. We do believe that the following measures could be considered in practice for improvement of the alliance monitoring by SAS to promote chances of alliances’ success.

![Figure 2: The strategic alliances’ monitoring improvement]
Additionally, in the beginning of the research we aimed to answer some other questions as according to Yin (2003) a case-study must to identify at least three questions to answer. We found out that not all factors from the previous studies lead to the alliance failure. The most problematic is governance of the alliance and IT-systems match of alliances. This is complicated by specific regulations in the industry and cannot be solved only on an airline level. The best solution for this could be establishment of a single IT-system at least within the Europe and simplify rules in the industry. It would ease the airline operations and prevent failure. Unfortunately, the reality says that it is difficult to predict some improvements in this case as we are talking about alliances of state-owned carriers, means an “alliance of two countries”. Therefore, everything goes on the governmental level. We would say that major reasons of an alliance failure lead to non-profitability, non-equal benefits for partners and discrepancy of operational standards.

Investigation of SAS alliances also shows that the group has alliances on the central level (SAS Airlines Norge-Danmark-Sverige unit) and on the local level (SAS International unit). We considered alliances on the central level as they indicated in SAS Reports and were more appropriate for the study. We would say that global alliances as Star Alliance are more stable than single alliances. Rajasekar and Fouts (2009) and Morrish and Hamilton (2002) studies stated the same opinion. Most likely, if SAS turns to the Scandinavian market only and do not enter any single alliances it could be a good option for the group at the present external environment.

6.2 Limitations of the study
We believe that generalization should not be presented as the case-study was conducted on one company, the SAS Group. Moreover, it was focused on strategic alliances of SAS Airlines Norge-Danmark-Sverige unit only. Therefore, the results could not be applied to deal with for other airlines, especially outside the Europe.

Interviews were conducted through internet (phone). Some questions were skipped or rephrased. Data was collected through SAS Reports, websites, scientific materials and could contain of information lack. This could emerge the bias of the study.

6.3 Further research in the airline industry area
The airline industry because of its dynamic has uncovered area for further researches or improvements of already existed. It would be quite interesting to conduct the research particularly about monitoring of multiple airline alliances. Because of its complexity it should be performed as a separate study. A study of comparison between multiple and single alliances also could contribute the development of the airline industry, the same as a study about what is more profitable for airlines to operate alone or enter the alliances.

The next possibility for the further research would be investigation of the alliance monitoring of several state-owned carriers in Europe to find out some common problems and probably “pushed” airlines to find solutions and cooperate with each other.

We believe that the most significant and sophisticated research could be done in the area of IT-systems for airlines. This could be performed by researches who have knowledge and background in IT and engineering.
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Appendix

Appendix 1: Interview guide

Respondent background

- Could you tell me about your background and career path?
  - Did you work in some other airlines?
  - What are your main duties at present position?

Strategic alliances in the airline industry (goals, types)

- What are the main strategic goals of entering into an alliance for SAS Group?
- What kind of alliances did SAS enter?
- What kind of agreement does SAS arrange with a potential airline?
- What kind of benefits might such alliances bring to the companies entering into them?

Strategic alliance partner choice

- Is it possible to create an alliance between a state-owned carrier and a low-cost carrier?
  - Why? Why not? How?
- How does SAS choose an appropriate partner?
  - Has SAS got any specific procedure?
  - What factors influence SAS decision in this case?
  - What would happen if they choose an inappropriate partner?

Strategic alliance governance

- What is the legal procedure for registering a strategic alliance?
  - How do you handle the legal documentations related to alliances?
- SAS has several alliances. How do changes in one alliance affect others?
  - How do such changes affect the organizational structure of an airline?
  - Can you give an example of such changes in the organization?
• How do cultural differences between the airlines influence their work and relationships within an alliance?
  o Can you give an example?

**Strategic alliance operation**

• To what extent do the IT systems of both airlines interact within an alliance?
  o Can you give an example?

• What affect does an alliance have upon an airline’s operations and its capacity to be flexible?

• Could you explain customer orientation strategies?
  o How do they affect an alliance?

**Strategic alliance discontinuation**

• In what circumstances would an alliance be discontinued?

• When would an alliance discontinuation be considered as a failure?

• Which were the reasons for the discontinuation of SAS alliances with Spanair and Air Baltic?

**Airline alliance monitoring**

• How do you monitor or control alliances activity?

• How do both partners coordinate the monitoring of the alliance?

• What department of SAS is responsible for monitoring an alliance?
  o What’s your role there?

• How do you estimate how successful an alliance might be?
  o How often?

• What is your personal opinion about alliance monitoring? Maybe it needs some improvements to make it more successful?

• Do you have any suggestions how to improve the monitoring?

• How does SAS improve the monitoring of its alliances?
Final questions

- What kind of sources do you use to get information related to strategic alliances of some other airlines?

- What kind of sources (magazines, newspapers, journals, internet or others) do you use to attain new information regarding the regulation of airline alliances?

- Do you have anything important to add?
Appendix 2: The SAS Group Market

The SAS Group Market (SAS Report 2006, p.13)
Appendix 3: The SAS Group organizational structure

**SAS Scandinavian Airlines**
- Scandinavian Airlines Norge
- Scandinavian Airlines Danmark
- Scandinavian Airlines Sverige
- Scandinavian Airlines International

Main markets - Scandinavia, Europe, North America and Asia.

Customers - frequent travelers in the leisure and business segments

**SAS Individually Branded Airlines**
- Wideroe
- Blue 1

airBaltic (Reported as a discontinued operation in 2009/2010)

Spanair (Reported as a discontinued operation in 2006 and 2007. However, Spanair is included in all sustainability-related figures and in the SAS Group's balance sheet)

Strategic affiliated company: Estonian Air

Main markets - Norway, Finland and the Baltics.

Customers - frequent travelers in the leisure and business segments

**SAS Aviation Service**
- SAS Ground Service
- SAS Technical Service
- SAS Cargo

Main markets - Scandinavia, the Nordic region and the Baltics.

Customers - SAS Group, external airlines.

*The SAS Group structure (SAS Report, 2007, pp. 2-3)*
Glossary:

**Passenger load factor or PLF** – average amount of occupancy on different airlines routes

**Customer pool**- average amount of potential passengers

**KPI**- Key Performance Indicators

**IT**-Information Technology