Entrepreneurs Acting in Networks: Small Passenger Airlines in Sweden after Deregulation

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INTRODUCTION

The Swedish domestic market for regular passenger air traffic was deregulated in 1992. The industry was deregulated not only to encourage price competition, but also to stimulate entrepreneurial and innovative activities related to operations and the services offered.

Before 1992, SAS and Linjeflyg (acquired by SAS in early 1992) had split up the routes between them. Only a few minor routes into remote areas were left to small operators. During the period 1992-2003, more than 30 firms had been active in regular passenger flights of which half have either since left or been acquired. Still, in 2003, the combined market share of SAS and its partially owned partner (Skyways) was around 75%.

In the early years after deregulation, competition increased, but a few years later, SAS was again the sole operator on most major routes. After a Market Court decision in 2001, ruling that SAS could not use its Frequent Flier program on domestic flights, market entries and competition increased. During the last couple of years, price competition has increased.

Domestic development has been influenced by SAS’s restructuring and its alliance with a fast growing SME, Skyways. A combination of entry and exit of firms characterized the turbulent environment. Small firms entered from nearby air businesses and became members of operational alliances. Some airlines focused on low cost/low price, while others focused on developing new ways of thinking and operating on the market.

We aim to describe and analyse entrepreneurial actions by SME’s after deregulation of the market. To understand how such actions are important, given that the effects of deregulation on market structure and performance depend on them, we will use a definition of entrepreneurial action that relates to our markets-as-networks perspective.

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MARKET CHARACTERISTICS

Some characteristics of the passenger airline business in Sweden during the period covered that influence the opportunities and restrictions for emergence and growth of SMEs are important to consider:

a. The customer base is small for most routes. It is difficult for an entrant to compete with an incumbent on more than a few (6-8) existing routes.
b. Customers often need connections to other international or domestic routes. The "hub and spoke" organization of route networks favours large incumbents and operators who cooperate in alliances, including code shared flights.
c. Variations in customers scheduling preferences make it important for an operator to offer several departures and arrivals per day on a specific route.
d. Customers generally prefer to fly in big rather than small aircraft.
e. Customers may be reluctant to use other airlines than the airline they usually fly, due to Frequent Flier programs.
f. At major hub airports, especially Stockholm-Arlanda, the number of arrival and departure slots that can be allocated to new entrants is quite restricted.
g. For some routes in northern Sweden that need to be subsidized by the government as part of a regional development program, traffic for a period is awarded to an operator after a bidding process.

Points a-f imply major problems for new entrants to successfully compete with SAS on major routes with similar services. Entrepreneurial activities need to be directed towards finding opportunities to circumvent these barriers. Point (g) implies a risk that investment in an awarded route can only be used during a limited period.

CONCEPTUAL FRAMEWORK

We apply a markets-as-networks perspective in this paper to specifically emphasise how small firms, entering a deregulated market, adapt to and/or change the network structure and network processes.

An entrepreneur is an actor (individual or organization) that seeks new and often unconventional ways to develop the organization. Entrepreneurship is often related to aspects of technical advancements (Schumpeter 1949), but also to changes in economic and social organization. However, entrepreneurship does not have to enter the market in the form of a new venture; it can equally well take place within existing firms.

In the literature on corporate entrepreneurship, entrepreneurial firms move through different stages of change, from a first stage as re-venturing or re-juvenating the existing business, to a second stage implying renewal in terms of adding new products/services, to a frame breaking stage (Stopford and Baden-Fuller 1994; Covin and Miles 1999). The final stage, frame breaking, is what Schumpeter (1934) discusses as changing the rules of competition, which indicates a totally new way of thinking about competition.

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2 These are adopted from the the Market Court proceedings in the SAS Eurobonus case (MD 2001 4)
In that stage, the innovation often represents totally new combinations; like high quality and low cost (Deming 1982), or miniaturization and low cost (Morita 1986), or speed and efficiency (Stalk and Hout 1990). The first stage is more limited in its extent and is often managed by an individual entrepreneur in the firm. The renewal stage includes the whole firm and its behavior, and the last stage signifies a total transformation. Small airlines entering a deregulated market do not have to be new firms, but can equally well be existing firms entering a new business.

There are many different ways to classify the actions taken by the entrepreneur and thereby classify the type of entrepreneurial actions. Davidsson (2003) used a typology of whether the actions taken by the entrepreneur involved newness to the market and/or newness to the firm. Stopford and Baden-Fuller (1994) found that not only opportunities but also threats in the market can be a trigger for development for entrepreneurs.

Much research has focused on the role of personal attributes and social network connections (Aldrich and Zimmer 1986), and how industrial network relationships and interdependencies influence opportunities for entrepreneurial action. Lundgren and Nordenlöw (1992) discuss how changes in the industrial network structure can affect the expected amount of entrepreneurial activities. Deregulation is supposed to make the structure looser, thereby increasing opportunities for entrepreneurial action.

Given our network perspective, we regard entrepreneurial actions as actions that affect network structures and processes. Such entrepreneurial actions are concerned with exchange between actors (Snehota 1990) and fit the definition of strategic action in networks (Johanson and Mattsson 1992).

To enter the market, an SME needs to develop relationships to providers of resources for operational and safety systems (including airports), to public and financial institutions, and to local customers (local businesses) that are potential users of the specific route. It needs to develop relations to provide connections to other routes. For further growth in the market, the SME needs to develop old and new network relationships, thus changing its network position. Thus, the firm relates to other actors through dyadic relationships that are more or less interdependent and embedded within a wider network. For example, two airlines may cooperate with each other in an alliance. More airlines may join to form a multi-firm alliance. The wider network might contain several such alliances and competition might be characterized as collective competition (Gomes-Casseres 1996; Hertz and Mattsson 2004).

THE EMPIRICAL STUDY

This paper is based on a research project on entrepreneurship in industrial networks financed by the Swedish Competition Authority, reported earlier by Dembrower (2005). Empirical data has been gathered from secondary sources about all the airlines operating in the Swedish market between 1992 and 2003. Personal interviews were made in SAS and in 15 small firms, and with aviation market experts. Even if several studies have been made on deregulated aviation markets, very few have focused on small firms.
Furthermore, only a few studies have been done on SME alliances. Based on the empirical study, we list eight major types of entrepreneurial actions:

**Creating new direct routes**

A common way to compete is to create a new direct route. Most often these routes cover rather short distances, between a middle-sized Swedish town and Stockholm or one of the other larger cities. This way the SME avoided direct competition with SAS. Since SMEs have a different cost structure (use of small airplanes, use of employees for a variety of activities), they have a greater possibility of profitably operating with a smaller market base than the major airlines. Major unexpected problems experienced were not the costs to lease the airplanes, nor to set up a maintenance system, nor to create a safety system or to find the right staff, but to find the right slots at the larger destinations (especially Stockholm-Arlanda), and to develop demand. For new direct routes involving smaller towns and rather short distances, the potential customers need to change their habits from the alternative of travelling by train or car.

**Forming new regions**

Forming a new region is another way to create a market base. Some operators put the name of the region in their own name like West Air, Värmlands Flyg or Nordkalott Flyg. Usually the regions comprised a number of smaller towns, but no major city. These regions do not have to be limited to Sweden, but could also involve destinations in other Nordic countries (like the northern parts of Sweden, Norway and Finland) or other Baltic states. These regions are sparsely populated but distances bridging destinations across national boundaries in an east-west direction are often shorter than domestic flights in a north-south direction.

**Combining air businesses**

Many of the SMEs originated in other related businesses like taxi or charter flights, military and educational applications, and airfreight. They therefore had the know-how, the set-up for the technical and safety issues and an existing organisation. Skyways is a good example: they combined several of these businesses to become bigger when they entered the regular passenger business. Size helped when they recruited personnel from larger airlines. In some cases, combining related businesses like airfreight and passenger flights were problematic, as they had a different “logic” as regards operations and marketing. However, being bigger in the entry period, seemed to be positive for the survival of the SME.

**Using small airports**

Most of the SMEs had a specific airport as a home base, and most used small airports for many destinations in their developing route network. These small airports were normally cheaper to use, the service was better and good slot times were more easily available. In a few cases (e.g. Flying Enterprise), the SME took over the responsibility for operating the airport.
The main problem was Stockholm, due to the lack of good slot times during peak hours and high costs. One of the firms entering directly after deregulation, Malmoe Aviation, was able to use Stockholm Bromma (the old Stockholm airport, which is much smaller and closer to Stockholm City than Arlanda). However, while this was very positive in facilitating their development, it also caused problems in managing expansion. In most cases, the SMEs had problems with Stockholm as a destination and have either preferred to start routes to the second and third largest cities in Sweden, or like Skyways, aligned themselves with SAS to get access to the SAS Arlanda hub.

**In-sourcing and out-sourcing**

The SMEs were very innovative at out-sourcing and in-sourcing. The lack of available resources made them out-source a lot of their activities to other SMEs, to SAS (mostly for Stockholm flights), or to specialist firms, depending on specific conditions. Typical activities out-sourced were booking, technical maintenance, check-in and luggage handling. In one extreme case, the SME out-sourced both crew and planes. However, some SMEs refrained from out-sourcing because they wanted to be very sure of their service quality.

In some cases when the SME possessed or wanted to acquire an attractive resource, it was profitable to allow other airlines access. For example, an SME that had invested in a good IT-system or a good technical support system, offered other firms using the same airport, access to their operating system. Some SMEs actually started education and training programmes for other SMEs about operations, systems, etc. Sometimes even SAS, for economic reasons, was interested to use the resources of SMEs. A case in point is when SAS out-sourced the operation of some routes to Skyways, conditional on SAS becoming part-owner of this rapidly growing SME. Out-sourcing and in-sourcing during the period studied developed rather complicated connections of cooperation and competition in the network.

**Entering and exiting new markets**

The SMEs have quite restricted financial resources and some of the markets that they focus on are new in terms of routes and networks served. The estimated cost of starting an SME in the airline industry varies between SEK 50-100 million, although many have tried to start with much less.

Due to high costs and limited resources, it is necessary for the new airline to learn about the opportunities to develop the market as quickly as possible. The problem is being able to stay the necessary time to find out whether there is a possibility to be profitable and to develop a loyal customer base. The SME must fly according to schedule even when there are very few passengers, it must be persistent in its marketing activities and it must be able to sustain losses for a substantial period.

SMEs have been quick and flexible in both entering and leaving specific markets. Sometimes they acquired the assets of a bankrupt airline and took over the routes, thereby learning by the mistakes made by the first airline. Skyways added a number of routes left vacant by exiting SMEs.
Forming alliances

Alliances and cooperative agreements were necessary to offer customers access to a larger route network, to coordinate activities and to economize on resources (Wang and Evans 2001; Hertz 1996). Most of the firms needed to have an agreement, a so-called interline agreement, with SAS to be able to offer customers tickets involving continued flights on the SAS network. After a decision in the Market Court, SAS was obliged to accept such agreements. Thus this arrangement cannot be seen as an alliance in the same way as the code-sharing arrangements that SMEs have with major operators, but sometimes also with other SMEs.

Over time however, needing more resources and access to other markets, SMEs formed many new alliances. Some of them created a smaller network of firms, helping each other with extra capacity when needed or running joint Frequent Flier programs. In other cases, the out-sourcing and in-sourcing activities developed into deeper alliances for combining skills.

To form alliances was necessary for growth. Skyways developed alliances with some smaller SMEs and had in turn, a major alliance with SAS. In some cases, the SME could use the fact that there was competition between the large world wide airline alliances (Star Alliance, One World) who used SME airlines as operators of small routes feeding passengers into major international routes. Specifically, the fact that Finnair and SAS belonged to competing alliances made Finnair interested in covering some domestic routes in Sweden and SAS to cover some routes in Finland. These alliances soon developed into acquisitions.

We also observed problems for an SME related to alliances. Complex systems and rules emanating from and adapting to a larger partner were often expensive, too inflexible and did not fit well with the needs and operations of the SME partner. Other problems included the lack of coordination between administrative systems and SME operations. Furthermore, the much bigger marketing resources of the larger airline partner made it almost impossible for the SME to plan future volumes due to unexpected volume changes for the partner.

All the SMEs in our study needed to get access to a wider route network. One SME that tried to “stay neutral” and to get access to several route networks found it to be too expensive. There were differences between the SMEs alliance agreements in terms of resources and activities involved and the time perspective.

Acquiring and being acquired

Several firms were fully or partially acquired by other firms and thus connected to other resources. Important for the restructuring of the market were four sets of changes in ownership.

First, Skyways acquired or became part owner of a couple of other SMEs, thus adding routes and other resources and SAS became part-owner of Skyways.
Secondly, SAS Norwegian competitor, Braathen’s, entered the Swedish domestic market by acquiring Transwede and Malmö Aviation, competing with SAS on major domestic routes. Then SAS acquired Braathen’s, saving it from bankruptcy. Malmö Aviation, due to competition law restrictions for acquisitions was acquired by investors outside the airline industry and continued as an independent.

Third, Finnair entered the Swedish domestic market by acquiring the SME Nordic Airlink (following the alliance mentioned above) in response to SAS purchase of Air Bothnia that operated in Finland and internationally.

Fourth, there have been a number of acquisitions involving SMEs without links to SAS or other major airlines.

DISCUSSION

In the Introduction we listed seven specific attributes of the passenger airline industry. We will now discuss how SMEs have tried to circumvent these barriers to entry and growth in the market related to the eight types of entrepreneurial action. We will explore how the SMEs developed or found new markets or niches and review the typical growth patterns of a small-medium sized airline in order to stay in the market.

Handling the barriers to entry and growth

The customer base for most routes is too small for more than one airline. SMEs have avoided such routes by creating new direct routes and new regions. They have got access to such routes by forming an alliance with, or being partly acquired by the incumbent sole operator that turns this route over to the SME. Another way to handle uncertain routes is to be flexible in entering and exiting new markets (new routes).

Customers often need connections to other international or domestic routes. This problem has been handled by forming alliances (eg code sharing), by acquiring or being acquired and to a small extent by forming new regions.

Variations in customers’ scheduling preferences. When the SME has created a new direct route, it is likely that the customer base is too small for more than one or two departures/arrivals a day. There are no competing schedules with more frequent flights, like those that exist between major destinations, where the number of departures/day might be 6-8. Cooperation between airlines in scheduling flights may solve some of the problems.

Customers generally prefer to fly in big rather than small aircraft. Again, for the new direct routes, the customer base is too small for large airplanes, regardless of the size or the market share of the operator. The use of small airports makes small planes the only alternative. However, potential customers who strongly object to flying in small planes further diminish the customer base.

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Customers might be reluctant to use airlines other than the airline they usually fly. New direct routes created by the SME have no incumbent airline competing on that route, but a passenger might perhaps have an indirect alternative with the airline they are used to. The role of SAS Frequent Flier program for customer preferences radically diminished after the Market Court decision and some SMEs have their own program, alone or in cooperation with others. Acquisitions might diminish this barrier to entry as well as SME flexibility in market entry and exit.

**Slots that can be allocated to new entrants are restricted.** Using small airports helps on such destinations. At major congested airports, an alliance with an incumbent or being acquired are more important for getting slots.

**Bidding process for some minor routes.** Some of those routes might be related to development of a new direct route, part of development of a new region, or a combination with other air services than scheduled passenger flights.

There are a number of interrelated entrepreneurial actions by SMEs aimed at getting, developing and coordinating resources for growth in the deregulated market, preserving flexibility due to uncertainty and limited resources. Solutions to growth problems invariably involve relationships with other actors or developing a network of cooperating firms, out-sourcing certain activities and in-sourcing others. Creating alliances, not only with other airlines but also with local authorities and local enterprises, is very important to get flexibility and growth. Small, newly started airlines might be more unconventional than large incumbents with large route networks, but a problem for SMEs is that they are more dependent on other actors, including other SMEs, and their network is more vulnerable (Tsang 1998).

**Developing new products/services and/or finding a new market**

According to Stopford and Baden-Fuller (1994) and Covin and Miles (1999), not only new ventures but also existing firms may be entrepreneurial. We found that the majority of the new airlines entering the deregulated market for scheduled passenger flights were already established in related air businesses like charter, airfreight, post flights, taxi flights and military airline services. Others were newly established firms that had taken over resources from an existing business or acquired smaller airlines. However, moving into a new market requires rather extensive changes to the existing firm. Such changes can either establish new products and services engaging the whole firm (renewal), or frame breaking, leading to a “change in the rules of competition” (Schumpeter 1934).

Renewal was sufficient for firms with closely related types of services like taxi and charter flights, feeder flights or passenger air transportation in other Nordic countries. These firms could relatively quickly establish a passenger airline business in Sweden and entered the market early. These firms were often finding a solution, which included some kind of alliance with SAS. Firms entering from airfreight or shipping seem to need more significant frame breaking changes to succeed. Some withdrew from the passenger airline business and continued with their earlier business. After some five years of intensive competition by the entrants on some major routes, SAS gained market share again and regained a monopolistic position on such routes.
Some of the new ventures that arrived in the next stage did not challenge SAS, but operated locally or regionally making use of small airplanes, paying lower salaries and combining resources in a different way.

The frame breaking firms that entered the market at a later stage launched extremely low priced services building on a totally new concept like FlyMe or Ryan Air. Such firms actually forced SAS to go through a total renewal itself, in line with the arguments by Stopford and Baden-Fuller (1994) in order to meet the new competition. The frame breaking firms combined several new ways of thinking that many of the other smaller firms had used earlier, like finding a less expensive airport with easier access to slots and finding new ways of combining and using the resources.

A typical growth path for an SME after deregulation

SMEs that survive and grow during the period can be seen to develop in three stages. In the first stage they find a market niche; e.g. new direct routes or routes taken over from a larger firm as part of the restructuring of its route network. An SME might also find a niche by using a small airport supported by local government and local business. The niche should offer a potential for the airline to expand its activities and its network of relationships with customers, suppliers, operating partners, etc.

In the second stage of growth, the SME makes itself attractive as a partner for other airlines. Alliances vary. Some are loosely connected in the beginning while others are based on a close connection, implying restrictions on the SMEs activities and growth. Through combining different roles of customer, supplier, competitor and partner, the SME might be able to increase its know-how and resources in marketing and operations and to establish new useful relationships, leading to further growth.

During the third stage, the SME can use a stronger position in the network for further growth and better outcome from negotiations with major counterparts such as SAS.

CONCLUSIONS

The deregulation actually opened the market for new firms but there were no real framebreaking changing the rules of competition until after almost a decade. The firms that entered in the early stage were not framebreaking but rather renewing the market and many of them rather quickly entered into an alliance with SAS.

The smaller firms entering the market over time found different ways to circumvent or cope with the restrictions of the market by getting good slots by finding new cheaper regional airports, creating new direct routes, creating economies of scope by combining domestic passenger flights with other types of airline business like taxi flights, charter flights or airfreight. The new airports and regions also provided new markets for these firms.

Growth for the small airlines was to a large extent dependent on finding a niche where competition with SAS was reduced. The growth in that niche made them strong enough
to become an interesting partner for SAS and thereby to get access to a wider network. This provided a possibility for further growth developing into somewhat larger but still rather traditional passenger airlines.

References


