

Summary:

The significance of aviation in a globalised world

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Norwegian enterprises are increasingly becoming integrated within global production networks – especially larger international companies, but also some small and medium-sized enterprises (SMEs). In a global economy, air services and information and communication technologies assume prominent roles. While the aviation market is sensitive to cyclical fluctuations, there is a clear trend towards increasing intercontinental travel by Norwegian company personnel, especially to destinations in the USA and Asia. The motives for air travel are industry specific, but a common motivating factor is the need for face-to-face contact in developing relationships of trust, which is of particular importance in knowledge based project cooperation and joint venturing. This underscores the need for physical meetings and air travel, and the greater orientation of contemporary Norwegian business activities towards the Asian market may contribute to reinforcing this development. Air cargo from Norway has been gaining increasing importance during recent years, largely due to the increased transport of fresh salmon to markets in Asia and the USA.

The report highlights the role of aviation in the ongoing globalisation processes of Norwegian enterprises, while the results draw on a review of the existing literature, analyses of national air travel surveys and case studies.

The role of transnational companies in the global economy

From an economic point of view, globalisation is development towards increasingly interconnected global circuits of production, distribution and consumption. An important force driving globalisation processes is the *liberalisation* of world trade, propelled by institutions such as the International Monetary Fund (IMF), the World Trade Organization (WTO) or the World Bank. Development of the single European market has enhanced the economic interaction between countries, as has the collapse of the Soviet Union and the political and economic system dominating the former Eastern Europe. In recent times, the increasing integration into the global economy of countries such as China and India has further stimulated the growth in trade.

Another driving force propelling globalisation processes is the reduced cost of *transport and communication*, which has stimulated growth in the flow of products and materials, and in the development of economic and geographic specialisation – a process greatly accelerated by the development of commercial jet aircraft and container transport. The technology that has influenced relations

most on a global scale, however, is the development and dispersion of information and communication technologies (ICT). The spread of the Internet has been dramatic, as has been the increase in access to and availability of information. Communication via the Internet has taken over from a number of conventional means of communication.

A third, fundamental, driving force of globalisation processes is *competition*, which no longer has national boundaries and produces two effects: spread and integration. Greater demands are being put on enterprises to be present in all growth markets and to integrate their activities on a global scale if they are to exploit and coordinate linkages between different places. Global competition has therefore fundamentally changed the conditions for business organisation, growth and localisation. The implication is that competitiveness to an increasing degree depends on the ability to utilise resources and specialised competencies selectively on a global scale.

Liberalisation and deregulation of international trade and investment, in combination with the development of ICT, have thus fundamentally changed the dynamics of global competition and contributed to the growth of global production networks. Increased globalisation does not necessarily imply that the world economy has become more open, but rather that it has become increasingly interconnected – mainly due to the growth of integrated production networks. Transnational companies (TNCs) play a key role in coordinating these networks, their number having grown exponentially during the past three decades and today accounting for two-thirds of the world's exports of goods and services. Together with nation-states, these enterprises represent the most important actors of the global economy.

Strong growth in intercontinental travel to Asia

The Norwegian aviation market is large; it is expanding, and travel is becoming increasingly longer. Travel to foreign destinations has increased more than domestic travel, particularly in the leisure market. Although growth rates of work-related travel to foreign destinations are lower, the market has nonetheless doubled since the early 1990s.

Travel to European destinations experienced strong growth in the period 2003 to 2009, following the increase in services of low-cost airlines. The growth in intercontinental travel portrays a long-term positive trend, not the least due to strong economic growth in Asia. For the Norwegian market, North America is still the most important destination outside Europe, although Asian countries are gaining in importance and are likely to outperform North America as the most important intercontinental destinations.

- 600 000 one-way trips were made to Asia and 750 000 to North America in 2009.
- Air traffic to Asian destinations quadrupled between 1998 and 2009, while traffic to North America increased by a third.
- Extrapolating the growth pattern of 2003–2009, there will be three million intercontinental trips to/from Norway in 2015, and Asia will have surpassed North America as the most important travel destination.

- Mature markets such as the USA and parts of Europe reflect declining growth rates, while stronger growth is expected in new markets.
- International traffic forecasts indicate higher growth rates for travel to Asian destinations than to European and North American destinations.
- The most mobile group are business travellers.
- The growth in incoming tourism to Norway is based on air travel.
- Winter tourism is the segment that has increased most.
- Air traffic is sensitive to cyclical fluctuations, a case in point being the temporary reduction in air traffic in the midst of the financial crisis.
- The annual growth rate of domestic travel has fallen from 7 percent in the 1980s to 2 percent in the period 2000–2010. The amount of travel to foreign destinations has continued to grow by 6 percent annually.

Air travel is decisive in connecting the global operations of Norwegian enterprises

A precondition for the operation of global enterprises, air travel is fundamental to the development of new markets and business relations. Interviews with selected Norwegian enterprises, however, indicate a certain ambivalence regarding the future development of intercontinental air travel. While there is a general impression of future growth in intercontinental travel, some business managers expect lower growth rates in the future because of either declining markets or a stronger local embedding of foreign projects and subsidiaries.

Air travel is nonetheless decisive for internationally oriented enterprises, especially in relation to project cooperation, advisory services and consultancy. Complex and knowledge intensive operations require personal meetings. The importance of informal and spontaneous meetings can hardly be overestimated, being of special importance in growing markets in Asia. This means that the use of videoconferencing and other communications technology only to a limited extent will substitute the demand for air travel. Some air travel, especially within the maritime and petroleum sectors, is related to inspections of physical installations or vessels, or to the transportation of crew to platforms and other technical installations.

Air cargo is assuming an increasingly important role especially within the fish-farming industry, where fresh salmon is transported by air to Asia and the USA. For humanitarian organisations such as the Red Cross, air cargo is essential in relief work. For the petroleum industry, air cargo is important in cases of urgency, although the bulk of this transport is by pipeline, sea or road. When a critical part is needed, however, the cost of air cargo is considerably lower than the economic loss caused by an eventual disruption in production.

For all the interviewed enterprises, also safety and security have become issues of greater focus when it comes to business travel. Firms have developed new systems for recording the travel undertaken by employees. Environmental issues, as shown, have received increasing attention in recent years, for instance in the form of mapping the environmental aspects of air travel.

Most of the enterprises described in this report (Statoil, Seadrill, DNV, the Red Cross and Telenor) aim to establish subsidiaries in their respective foreign

operations, thereby implying the wide use of local labour and extensive cooperation with nearby operations. The practice of engaging local labour in foreign operations is an emerging trend and could mean a travel pattern less centred on the Norwegian headquarters and instead involving more direct travel between the various foreign operations and subsidiaries.

Norwegian aviation in 2040 – growth or stagnation?

The report outlines two different development paths of global air transport services. Guiding the first scenario (*Stagnation*) is the basic assumption that economic growth in EU and Norway will be moderate. The economic growth in Asia is expected to continue, and air traffic within and to/from Asia is expected to grow. Oil prices are assumed to rise to USD 250 a barrel. Cost increases and stagnation in European air services will lead to consolidation in the aviation industry, and SAS is expected to become incorporated within a larger network enterprise such as Lufthansa. No network companies will have Oslo as a base for intercontinental flights. It is assumed that low-cost companies will establish certain intercontinental tourist flights, but no new destinations geared towards the needs of Norwegian enterprises are expected to be established.

As competition in the aviation industry reduces, there will be price increases for air travel, adding to the cost increase incurred by the rise in oil prices. Prices for intercontinental flights are thus expected to be 50 percent higher than in 2010. European flights, too, are expected to become more costly, albeit only through a more moderate price increase of 30–40 percent, as low cost airlines are assumed still to be of importance in this market. The growth in traffic, however, is likely to be relatively weak.

In the second scenario (*Growth*), yearly economic growth of 2 percent in the EU and 3 percent in Norway is assumed. The economic growth in Asia will continue, and there will be strong growth in air traffic within and to/from Asia. Oil prices will reach about USD 130 a barrel. It is expected that by 2040 Oslo airport will have flights to 15 intercontinental destinations. On westbound flights, Oslo airport may receive additional traffic from the other Nordic countries, creating a basis for more flights and higher frequencies, as well as contributing to curbing the leakage to airports in Copenhagen and Amsterdam. These 15 new destinations could translate into additional intercontinental traffic of approximately two million passengers a year to/from Oslo airport. It is likely that destinations in China and India will be developed, being the world's two most populous countries. In addition, there will be destinations serving both leisure and business markets.

Implications of the two scenarios

To Avinor, the operator of 46 Norwegian airports, one growth scenario translates into high income growth as well as rising investment costs needed to cope with increasing capacity needs. The difference between the two scenarios lies mainly in the growth in air traffic to foreign destinations, which is also the segment generating the highest revenues to Avinor per passenger (due to income-generating activities at the airport directed at this segment of the market). Thus,

the impact of the two scenarios is relatively more pronounced for the revenues of Avinor than for the traffic development itself.

The two scenarios imply different development paths of the air services. For many enterprises, proximity to a central airport is of vital importance. In locational decisions, the quality of air services is one of several factors to be considered. Norwegian airports cannot match the air services of large hubs such as London and Paris, but they do stand a fair chance in competing with the airports of neighbouring countries and of other cities with more limited air services. The development of air services will also impact on air-based tourism, implying a reduction in the number of incoming tourists in the case of a reduction in air services. In turn, this will imply less income in areas where tourism is important for employment and value added.