E- MARKETPLACES IN THE AVIATION/AIRLINE INDUSTRY

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March 2007
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Introduction

The airline/aviation industry is a very competitive industry characterised by a small number of firms who control the majority share of the market. Half of the world’s fleet is operated by 17 large airlines.

It is estimated that the airline/aviation industry generates 29 million jobs worldwide and its global economic impact is estimated at USD 2,960 billion, which is equivalent to 8% of world GDP.

Recent times have been difficult for the industry. Of note have been the loss of consumer confidence due to terrorism threats and SARS and the increasing cost of fuels reducing yield per customer. It seems though that the industry has weathered this well and is coming out the other side. Growth in seat demand is forecast across all regions, with the most significant growth expected to come from Asia.

Characteristics of airline/aviation industry

Deregulation

Like many industries the airline/aviation industry has experienced deregulation, and with deregulation increased competition usually follows. This has happened in some parts of the industry but not all. In some countries deregulation has lessened the control of national airlines but still today most airlines are completely or partly owned by governments. Government control translates to a lack of freedom for the airline to enter into cooperative arrangements with other airlines and to select its suppliers indiscriminately across ‘borders’.

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Strategic alliances

The airline industries in the US and Europe have embraced deregulation the most leading to the emergence of low cost airlines and the formation of strategic alliances. Most of the deregulation regarding market access has occurred within domestic markets not international markets. For an airline wanting to expand internationally the formation of strategic alliances with other airlines is really the only market entry strategy. This is because international air routes are coveted and highly regulated, and explains why we see more and more sharing of routes between airlines.

Here is a case in point. In April this year, I am travelling from Sydney, Australia to Madrid, Spain. I am flying in a Qantas plane (operated by Qantas) from Sydney to Bangkok and then from Bangkok to London. I will then change to a British Airways plane (operated by BA) for the leg from London to Madrid. On the way back I am flying in British Airways plane (operated by the Spanish airline Iberia) from Madrid to London, and then will change to a larger British Airways plane (operated by BA) from London to Singapore and Singapore to Sydney. My schedule of travel is realised via a combination of strategic alliances.

Aside from a superior customer experience and schedule flexibility (hopefully for my own sake), strategic alliances can also offer the participating airlines joint procurement opportunities that often result in cost advantages.

Climate of cost-cutting

Using Deutsche Lufthansa AG as a case in point, dipping customer demand (terrorism threats, SARS) and high fuel costs resulting reduced yield per customer, has forced airlines to drastically cut costs. In 1996 Lufthansa established Program 15 which had a goal to cut costs by a minimum of 4% each year. Renegotiation of supplier contracts, cutting of excess staff, and inventory reduction programs became the norm.

The following chart shows the areas where European airlines have been concentrating their cost cutting efforts.
Emergence of the Low cost airline

Low cost airlines use less busy airports, offer limited in-flight services, have quicker turnaround times between flights, and tend to use a particular class of aircraft to leverage maintenance and service efficiencies. Ryanair and Easyjet are examples of low cost airlines.

It is projected that over the next five years or so full service and regional airlines will account for 60% market-share, charter airlines 15%, with 25% for low cost airlines.

The chart below shows the emergence of low cost airlines.

Certainly new entrant ‘no frills’ airlines have led to much of this growth in recent years, particularly within Europe

Technological context

Another important characteristic of the airline/aviation industry is the relative sophistication and experience (around 40 years) using electronic communications and EDI protocols to support the procurement of good and services. The airline industry developed its own EDI protocol SPEC2000. SPEC2000 and SPEC2001 handle the majority of parts orders between airlines and suppliers. This system supports the industry’s need to uphold the highest standards regarding part integrity, quality and safety.
Types of E-markets in the Airline/Aviation industry

Broadly 3 types of e-markets operate in the airline/aviation industry.

Public e-markets (many to many) - Are independently owned and provide a neutral platform for companies to buy and sell.

For example www.partsbase.com

Consortia e-markets (few to many) - Are owned and developed by large industry players or groups of buyers and sellers to optimise supply chain processes and assist forecasting and inventory planning between the participating companies.

For example www.aerocexchange.com

Private e-markets (one to many) - Are privately owned and managed by one company to optimise its own supply chain with trading partners.

For example www.myboeingfleet.com

Recent research regarding the airline/aviation industry and e-market usage

A 2005 study conducted by the National Institute for Transport and Logistics in Dublin, Ireland, of Senior Procurement personnel from airlines around the globe focussing on B2B e-markets in the airline industry, delivered some interesting findings.

25% of study respondents are involved financially in an e-market (full service airlines making up the majority of this group at 68% and low cost at 23%)

65% report using e-markets for procurement (full service at 82%, low-cost at 79%, regional at 50%, and charter at 27%)

E-markets reduce search costs of airlines mostly in the areas of spares and repairs, tools, and office supplies.

Low cost airlines show a low financial involvement in e-markets but quite a high adoption regarding procurement practices. This is probably indicative of their need for flexibility and a tendency to outsource all but core operations.

Charter airlines were the least interested in using e-markets. This is probably due to the fact that they are part of larger tourism companies and have no autonomy or visibility with regards to strategic procurement. However, the opportunities to reduce costs by using e-markets may become more apparent with this group.

The study also found that the airlines overall ICT sophistication was a positive determinant on e-market adoption.

And not surprisingly the study confirmed that airlines involved in strategic alliances use e-markets more than those who are not.

With regards to outsourcing Low cost airlines outsource more than full service, regional and charter airlines. The majority of what is outsourced relates to the maintenance and repair of the aircraft. A tendency to outsource does not equate to increased usage of e-markets.
The Asian perspective

As mentioned previously the airline industry expects growth for seat demand over the coming years to increase with the most growth coming from Asia.

Therefore it is interesting to consider a study conducted in 2004 focussing on Asian airlines specifically. This study provides some insights as to how the Asian airline/aviation industry may be viewing e-markets.

![500 million more passengers will want to fly by 2010](image)

Generally most of the survey respondents were interested in the potential benefits that e-markets could provide and many had used an e-market. The feedback from the study was mixed.

Many were underwhelmed with the functionality offered by e-markets.

Others questioned the credibility of data with regards to parts availability supplied by participating suppliers.

Some mentioned that the incumbency of SPEC2000 was a ‘barrier to entry’ not to use an e-market and that there was a belief that EDI was more secure than browser based internet solutions.

Others mentioned that any usage of e-markets moving forward would be in conjunction with SPEC2000.

Also, not surprisingly, the study indicated a regional diversity regarding industry usage of e-markets within individual countries. Those countries with developed IT and internet infrastructures (Hong Kong, Japan, and Singapore) had higher investment and usage than countries such as Indonesia and China.

It will be interesting to see how these research findings translate to industry practice regarding e-markets within the Asian airline industry over the coming years and if the Asian experience will begin to mirror the more positive European and US experience and attitude towards e-market usage.
The E-market Services Directory

The E-market Services Directory lists 14 e-markets within the Aviation category. Those listed are mostly Public e-markets with a few Consortia e-markets.

<table>
<thead>
<tr>
<th>eMarket</th>
<th>Products &amp; Services Traded</th>
<th>Geographic Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerochain</td>
<td>Products within the fleet/aircraft industry, such as spare parts.</td>
<td>Global</td>
</tr>
<tr>
<td>Aerospace Online</td>
<td>New and used equipment within the areas of avionics systems integration, air traffic control, MRO and engines.</td>
<td>Global with focus on North America</td>
</tr>
<tr>
<td>Aerochange</td>
<td>Maintenance and airline services and products for trading partners in the aviation supply-chain such as AOG Services, Commercial Procurement, Consignment Management, Repair Management, Strategic Sourcing and Technical Procurement.</td>
<td>Global</td>
</tr>
<tr>
<td>AircraftMarketPlace</td>
<td>Aircraft, aircraft equipment and parts in the commercial aviation industry</td>
<td>Global with focus on North America</td>
</tr>
<tr>
<td>APLS</td>
<td>Goods and services in the defence industry such as aerospace and defence parts, spares and components, electronics, hardware, overhaul and repair.</td>
<td>USA</td>
</tr>
<tr>
<td>AvSupport Online</td>
<td>Aircraft parts, aircraft for sale, aviation pma’s (Parts Manufacturer Approval) and overhaul capabilities for commercial as well as general aviation.</td>
<td>North America</td>
</tr>
<tr>
<td>Cargo Portal Services</td>
<td>Services for carriers and forwarders to efficiently ship cargo by air</td>
<td>Global</td>
</tr>
<tr>
<td>Easy-Surplus</td>
<td>Surplus components</td>
<td>Global</td>
</tr>
<tr>
<td>Exostar</td>
<td>Integrated supply-chain solutions, products and services to the aerospace and defense (A&amp;D) industry.</td>
<td>Global</td>
</tr>
<tr>
<td>GovSupport Online</td>
<td>Cage code listed supplier parts and inventory</td>
<td>North America</td>
</tr>
<tr>
<td>IndustrialSupport Online</td>
<td>Aviation related industrial parts, products and services.</td>
<td>North America</td>
</tr>
<tr>
<td>OneAero</td>
<td>Aviation inventory, overhaul/repair and maintenance services</td>
<td>Global</td>
</tr>
<tr>
<td>onePO</td>
<td>Surplus aircraft parts and related maintenance services</td>
<td>Global</td>
</tr>
<tr>
<td>PartsBase</td>
<td>Parts, overhauls and services within the aviation, aerospace and defense industries, e.g. engines, tools, electronic components, training services and coatings.</td>
<td>Global with focus on the USA</td>
</tr>
</tbody>
</table>

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References

1. International Journal of Logistics: Research and Applications
   Vol. 8, No. 4, December 2005, 283–297
   B2B e-marketplaces in the airline industry: process drivers and performance indicators
   Claudia Mariawagner, Bernd Huber, Edward Sweeney and Austin Smyth
   National Institute for Transport and Logistics, Dublin, Ireland

2. Supply Chain Management
   New Developments in Purchasing and Supply Chain Strategies for the Aviation Industry
   a report by Dr Jorg Rissiek and Joachim Kressel Director, Strategic

3. Australasian Marketing Journal 12 (1), 2004
   An Asian Perspective on Airline Industry eMarkets
   Mark Neill & Sharon Purchase

4. 2nd Aviation & Environment Summit Geneva, 25-26 April 2006