

# Airborne express: harvard business school essay sample

[Environment](#), [Air](#)



The industry is defined as the Domestic US Express Mail industry. This includes overnight and second day delivery. In order to assess the attractiveness of the industry, a Porters' Five Forces analysis has been conducted as follows.

### Rivalry

The industry consists of three major players and six second-tier players. There is intense competition between the players as shown by the price wars between UPS and Federal Express. Although the market is growing at 15-20% annually, revenue growth has not kept pace due to falling prices. The players are also having difficulty differentiating their product as the other players quickly copy new innovations in the industry. The industry is highly capital intensive and the product is priced very low and hence, requires high volumes to generate returns.

### Suppliers

The main suppliers in this industry (employees) have a lot of power. They have used their power at UPS to obtain higher wages and benefits. Other suppliers include airports and since there are a limited number of airports near major cities, they are also a powerful entity, especially during negotiation of landing fees. Fuel is another major input in this industry as fuel consumption is a major expense and one in which the players do not have much control over. Technology and equipment (planes, trucks) are the other suppliers, but they do not have much power as there are many

alternatives available to the industry players and a good price for their products can be negotiated.

### Customers

Customers include anyone who wants to send an urgent parcel/letter to someone else. Majority of the customers are business customers who require urgent delivery to conduct their business. Customers are very price sensitive and their switching costs are negligible. This gives them a lot of power and makes pricing a valid strategy against other players.

### Substitutes

There are not many substitutes in this industry. The major one is facsimile and an emerging one is e-mail. Even though they may take volumes away from the industry, they are not substitutes for parcel delivery. In addition, email is not considered legal method of document delivery for legal documentation as its origin and authenticity cannot be guaranteed. Another substitute is standard mail, which is cheaper than express mail and does take volume away from the industry if a customer does not care about the urgency of their package.

### New Entrants

The threat of new entrants in this industry is small due to the capital requirements. For a new entrant to be a viable player, they need to be able to cover the major metropolitan cities of the USA. In addition, they would need to set up a hub at a convenient location and buy/lease a large number

of aircraft and ground vehicles to service the cities. All of these activities are capital intensive and it would be extremely hard to achieve the economies of scale that the current incumbents have achieved.

From the analysis, the threat of new entrants and substitutes is very low contributing to high industry attractiveness. However, the power of suppliers and customers is very high and the players in the industry are involved in intense competition contributing to a low attractiveness. Taking these factors into account, I would say the industry attractiveness is low (4/10).

#### Industry Attractiveness in Recent Years

Using the analysis done in the previous question as a base, the following section evaluates how the industry attractiveness has changed since 1990.

#### Rivalry

Since 1990, the industry has become more competitive. The major players - UPS and Federal Express have started price wars and product differentiation is almost non-existent. This has led to lower industry attractiveness.

#### Suppliers

There has not been much change in supplier power as far as Fuel, technology and equipment is concerned. However, the power of employees has grown considerably since the early 1990s. Even though UPS was a manager owned private firm, the employees went on strike in 1997 and

successfully obtained wage rises and other benefits. Federal Express handed out \$20 Million worth of bonuses at the same time to thank their employees as well as make sure that they did not consider similar actions. This shows that employee power has increased in recent times leading to lower industry attractiveness.

### Customers

Since the early 1990s, the players in the market have copied each other's innovations and this has led to very little differentiation of products in the market. Customers in this industry are very price sensitive and little differentiation allows them to shop around for the best deal. In businesses, there was also a trend towards contracts with multiple suppliers and this further increased customer power. These factors combined have led to lower industry attractiveness since 1990.

### Substitutes

In 1990, email was not a viable substitute as it was still a part of the research network and not commercially available. The only substitute was standard mail and facsimile. Therefore, in recent years, attractiveness has lowered due to the introduction of another substitute.

### New Entrants

It would be more difficult for a new entrant to enter in 1997 than it would have been in 1990 as the current incumbents have had 5-7 more years of benefit obtained from the learning curve. In addition, technology has also

become a driving force that a new entrant would have to develop in addition to the capital-intensive infrastructure. This would have made the industry attractiveness higher in recent years.

Combining all the factors and changes that have taken place in the industry over recent years, the industry attractiveness has become lower in 1997 than previously.

### Airborne Express' Competitive Advantage

Airborne Express has one major competitive advantage over its competitors - lower costs. This then allows them to provide the same product at a lower price. It costs Airborne Express \$4.80 to ship a package as compared to \$8.55 for Federal Express to ship an overnight letter (Exhibit 1). That is a reduction of 45%. An explanation of how the costs were arrived at is shown in Appendix A.

### Exhibit 1: Estimated Cost Structure of Airborne Express and Federal Express

Item	Cost per Unit (Federal Express)	Cost per Unit (Airborne Express)	Difference
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Pickup Labour	\$1.09	\$0.82	\$0.27
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Delivery Labour	\$1.64	\$1.39	\$0.25
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Flights & Trucking Expenses	\$2.91	\$1.18	\$1.73
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Maintenance & Depreciation	\$0.77	\$0.50	\$0.27
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Advertising & Sales \$0. 43 \$0. 18 \$0. 25

IT & Customer Service \$0. 74 \$0. 18 \$0. 56

Corporate Overhead \$0. 97 \$0. 55 \$0. 42

Total Cost \$8. 55 \$4. 80 \$3. 74

Source Data: Rivkin, J. W, Airborne Express (A) Case Study, Harvard Business School, Case # 9-798-070

Airborne Express gained this advantage by making some vital strategic decisions that have enabled them to reduce costs as well as influence the power of some of the players (employees, suppliers, etc). They are highlighted in the sections below.

### Labour

Airborne Express owned and managed only a small percentage of pickup/delivery vans. The majority (60-65%) were provided by independent contractors, which reduced costs by 10%. In addition, each courier made more stops per run than the competition. This saved them another 20% / 10% for pickups and deliveries respectively. In addition, by using contractors, Airborne Express was able to reduce the power of their employees.

### Flights & Trucking Expenses

Majority of Airborne packages were delivered by road (70%) and as such they did not require heavy investment in airplanes. Shipping by trucks is 66% cheaper than shipping by plane and this is confirmed by the figures showing Airborne expenses are 60% cheaper than Federal Express. In addition, although half of their workforce was unionised, their hub at Wilmington was not – allowing them to maintain minimum wages for their workforce. Other factors leading to cheaper costs in this area include the decision to purchase the Wilmington Airport. This saved costs in landing fees and they were also able to lease out space to customers. Customers who used space incurred higher switching costs as they would have to move their facilities from the Airborne site to another location, thereby enabling Airborne to increase their power over customers.

#### Maintenance & Depreciation

Airborne Express purchased old aircraft and their patented shipment containers allowed them to refurbish the planes with minimum costs. This has helped them keep depreciation costs lower than others as well as reduce the power of aircraft suppliers. Instead of purchasing from a few aircraft manufacturers, they have the choice of purchasing from many airlines.

#### Advertising & Sales

Airborne Express did not advertise in the mass media and instead concentrated their efforts on their target market.

#### IT & Customer Service



Airborne Express was a follower of technology and not a leader. They preferred that other companies made the investment in technology and once a particular technology was proven, they implemented it in their systems. In addition, Airborne Express did not have any retail outlets and hence saved costs in employees needed to run those outlets.

### Corporate Overhead

The company was very conservative and there was no expenditure on extravagant items or extra benefits to staff. This helped in keeping overhead costs low.

### Airborne Express' Strategy and its Sustainability

Airborne Express is pursuing a strategy of cost focus. As per this strategy, they have decided to target a particular segment of the market – businesses where demand is not seasonal and they have set out to become a low cost provider of express delivery services to such businesses. As has been shown in the previous section, they have managed to successfully obtain that position and are currently at a cost level of 45% below Federal Express and are providing a service that is almost equivalent to that provided by their main competitors.

In order to determine whether their strategy is sustainable or not, I have applied Collis' five tests of sustainable competitive advantage which are discussed in the sections below:

### Superior

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Airborne Express' current strategy is superior to that of their competitors. They have already reached a position where their costs are 45% lower than that of Federal Express.

#### Structurally Durable:

This item looks at whether the company can withstand changes in the industry. To be a successful firm using the cost focus strategy, the firm must be the cost leader, and there shouldn't be other firms vying for the position . The biggest threat to Airborne Express would be the de-regulation of US Postal Services. They are the one competitor that is capable of matching Airborne Express' prices and have the scale required to compete directly with Airborne Express. If they enter the market, Airborne's advantage will not be sustainable.

Other changes that could make their position untenable are a further unionisation of the workforce. However, labour costs make up less than a dollar of the cost advantage that they have. So its effect should still allow Airborne to maintain their cost leadership.

#### Inimitable:

The position achieved by Airborne Express would be difficult for a current competitor to copy. Airborne's workforce is mostly un-unionised. In addition, Airborne owns patents on their shipping containers that provide savings during refurbishment of aircrafts. However, it is possible for a new entrant to enter the market and copy what Airborne has done. I believe the chances of

a new entrant in the market are low as the industry attractiveness is quite low and the capital required will be out of range for most start-ups.

Non-Substitutable:

The only substitutes that were real threats were email and fax and although they can take away some volume from Airborne Express, the effect would be small. This is because most of Airborne's customers send packages consisting of parts and items other than documents. The cost advantage of Airborne should also be enough to withstand changes in business models, for eg: distance based pricing.

Non-appropriable:

The non-unionised labour force has limited power to cause hold-up. In addition, the company is considered to be conservative and frugal which shows that there is limited slack in the company.

All the above factors suggest that the competitive advantage held by Airborne

Express is sustainable. The biggest threat to its sustainability is the deregulation of USPS.

Recommendations

Exhibit 2: ROTA and EBIT margins of major players

Federal Express United Parcel Services Airborne Express

	1995	1996	1997	1994	1995	1996	1994	1995	1996
ROTA	9.2%	9.3%	9.2%	13.9%	14.2%	13.6%	8.2%	5.7%	6.0%
Total Asset Turns	1.46	1.53	1.51	1.75	1.66	1.50	1.83	1.84	1.90
EBIT Margin	6.3%	6.1%	6.1%	7.9%	8.5%	9.1%	4.5%	3.1%	3.1%

Source Data: Airborne Express Case Study, Harvard Business School

The strategy of cost focus and cost leadership is a good strategy when you can convert the cost advantage directly into a higher profit than your competitors. In this case the data is not available to calculate the ROIC, so I have used the ROTA as a measure of performance. From Exhibit 2, it can be seen that the returns achieved by Airborne Express are considerably lower than those achieved by its competitors. This does not correspond to what we would have expected based on their cost advantage. ROTA is composed of two variable – Total Asset Turns and EBIT Margin. We can see that Airborne Express has the best Total Asset Turns among the three companies. This shows that it is making maximum use of its assets. However, the table also shows that they have the lowest EBIT margin among the three. This tells us that the revenue obtained per unit is lower than the others. There are two ways the company can approach increasing its revenue stream. One is to increase prices and the other is to decrease costs.

The company is in the favourable position of having to consider changing its pricing structure from a flat rate to a distance based structure. This gives it a very good opportunity to set prices so as to increase margins while at the

same time not losing many customers. Prices would have to be increased for long distances and decreased for short distances. Increasing prices at one end more than decreasing prices at the other end, we can increase margins slightly. This combined with the change in incentive schemes for the sales staff should lead to increases in margins.

The other approach was to decrease costs. We know that using road vehicles is one-thirds cheaper than using airfreight. There is an opportunity to establish a long-term relationship with Roadway Package System (RPS) to enable Airborne to use RPS road network where it makes sense. Currently the relationship is on a case-by-case basis, but by making the relationship more concrete, we can lower our costs further and establish pricing that takes those lower costs into account. This would further help in sustaining our competitive advantage.

A number of other options were also considered that were rejected. Some of them include buying out RPS (rejected due to no information on RPS financials/net worth available), exit the industry (rejected because Airborne has a sustainable strategy and there is no reason to exit at this point in time), expand internationally (rejected because it would require extensive capital investments as well as a shift in target market).

#### Appendix A: Breakdown of costs

Number of packages delivered per day = 900 000

Number of packages delivered per year =  $900\,000 * 365 = 328.5$  Million

	Item Cost per Unit (Federal Express)	Cost per Unit (Airborne Express)	Difference
Pickup Labour	\$1.09	\$0.82 (1)	\$0.27
Delivery Labour	\$1.64	\$1.38 (2)	\$0.26
Flights & Trucking Expenses	\$2.91 (3)	\$1.18 (4)	\$1.73
Maintenance & Depreciation	\$0.77 (5)	\$0.50 (6)	\$0.27
Advertising & Sales	\$0.43	\$0.18 (7)	\$0.25
IT & Customer Service	\$0.74	\$0.18 (8)	\$0.56
Corporate Overhead	\$0.97	\$0.55 (9)	\$0.42
<b>Total Cost</b>	<b>\$8.55</b>	<b>\$4.80</b>	<b>\$3.75</b>

Source Data: Rivkin, J. W, Airborne Express (A) Case Study, Harvard Business School, Case # 9-798-070

1. Labour is 20% cheaper than Federal Express. However, Contractors are used in 60% of deliveries and they are 10% cheaper. So cost of labour is  $(1.09 * 80% * 40%) + (1.09 * 80% * 60% * 90%) = \$0.82$

2. Similar to Note 1

3. Assumed Flights & Trucking Expenses includes Pickup Fuel, Delivery Fuel, Hub labour and Flight & trucking Expenses as per Exhibit 3 of the case.

4. From Exhibit 6 in case: Cost of Flight operations & Maintenance in 1996 = \$782M = \$1. 18 per unit

5. Maintenance & Depreciation includes pickup, Long-haul and delivery depreciation costs as per Exhibit 3 of the case

6. Depreciation & Amortization cost of Airborne for 1996 = \$164M = \$0. 50 per unit

7. Advertising & Sales is the same as Sales & Marketing = \$60M = \$0. 19 per unit

8. Station & Ground operations expense for 1996 = \$782M = \$2. 38 per unit. This consists of pickup and delivery labour as well. The remaining component has been assumed to be IT & Customer Service costs = \$2. 38 - \$0. 82 - \$1. 38 = \$0. 18

9. General and Administrative costs in 1996 = \$181M = \$0. 55 per unit