REVENUE MANAGEMENT IN COURIER INDUSTRY

COMPANY CONSIDERED FOR STUDY: BLUE DART COURIERS

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# INTRODUCTION

The assignment is aimed at understanding the revenue management system practices in the courier service industry. We intend to analyse the company “BLUE DART” in this industry with respect to the following namely,

* Background and objectives of the company
* Forecasting strategies and methods
* Pricing strategies and effect of price elasticity
* Developing a revenue class
* Optimization of routes and revenue

# BACKGROUND OF THE COMPANY

Blue Dart (Indian partner of FedEx) offers track and trace software’s to enable customers to track their shipments from their workplace. Customers stand to gain from Blue Dart's domestic network and DHL's global reach. Blue Dart's Domestic Priority service provides the customer with a wide distribution network, time-definite deliveries and, most importantly, a track and trace system with real-time feedback on the status of each shipment.

Blue Dart has clearly differentiated itself by being the only player in the integrated air express segment with the focus being on India and the region, including the SAARC countries.

Blue Dart has the only dedicated logistics infrastructure in the country to provide a variety of logistics solutions to its customers. Currently, the company has a 3-aircraft aviation system with an in-house ground handling and maintenance capability to provide confirmed uplift. The flights are scheduled at night to facilitate late cut-off and morning deliveries. As an express airline, Blue Dart offers a range of services at various price options. Reliability and quality are some of the main areas of differentiation.

# REVENUE OBJECTIVES OF THE COMPANY

Currently, the company is commanding a 40% share in the domestic air express market is the only company providing a gamut of services – air expresses (both domestic and international through DHL), air freight, ground and charters. It is a one stop solution for any logistical requirement.   
Blue Dart has predetermined goals to become the ‘Express & Logistics Provider of Choice’ for Indian businesses. It continues to be the ‘Trade Facilitator of the country’ and focuses on specific customer needs, rolling out relevant solutions that meet and exceed customer expectations.The revenue objective of the company will be to optimize the routes and maximize the demand.

# OTHER OBJECTIVES

The other objectives of the company are

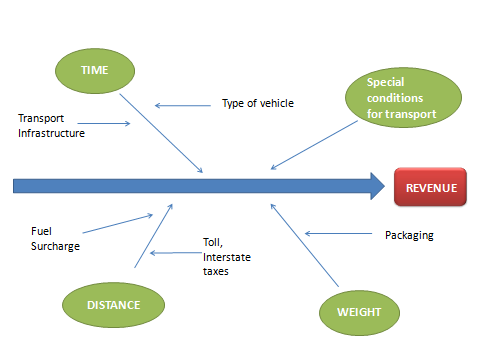
"to be the best and set the pace in the express air and integrated transportation and distribution industry, with a business and human conscience.” They commit to develop, reward and recognise our people who, through high quality and professional service, and use of sophisticated technology, will meet and exceed customer and stakeholder expectations profitably.  This would ensure that Blue Dart advances as a Brand with a clear focus on fundamentals and stands for Quality, Consistency, Reliability, Passion and Commitment. With this holistic approach, Blue Dart will remain a dominant force in the industry and consistently achieve higher growth in the years to come.

# FACTORS AFFECTING THE REVENUE VARIABLE

# REVENUE VARIABLES

# CONSTRAINTS FACED

# ISHIKAWA DIAGRAM



# FORECASTING

Accurate forecasting is considered to be an important instrument for effective and efficient decision-making and has the potential to become the core of strategic planning and budgeting within a firm. An effective courier revenue management system accurately forecasts and deploys available supply, resulting in improved revenue and profit.

It is necessary to forecast changes in demand factors over the next 3 to 7 years (including potential effect of electronic substitution, economic and demographic factors, and international regulatory requirements)

# FORECASTING AND ITS USE

Forecasting has been defined as “the art and science of predicting future events” that enables better decision making. It is also a planning and budgeting tool that helps management in coping with the uncertainty of the future. As Armstrong et al. (2010) put it: “Forecasting is concerned with what the future will look like, while planning is concerned with what it should look like.”

For courier services, the inputting of the data is done at state level, the drafting is done in co-operation with other country representatives on a Mediterranean level but inspection and approval of the forecast is done by the international corporation abroad.

The managers strongly believe that the demand for courier services depends highly on the loss or acquisition of a contract by one or more courier service customers which is beyond their control. Hence long-term forecasts aren’t given much importance.

Courier service companies are prone to the use of quantitative data due to experiences in scheduling exercises, tracking systems and electronic data interchange in their daily operations and so this relatively high mean may be attributed to the nature of the industry.

# FORECASTING METHODS

**Capacity Forecasting**

The first step in courier revenue management is to estimate the available capacity on future package arrivals. When determining capacity for courier, both the weight and volume (or container positions, for a wide body aircraft) of the cargo must be considered.

Since courier revenue management centres around the space that is available for free sale, any space that is reserved for other materials must be excluded.

**Impact on Available Space**

The amount of space available for courier is impacted by a number of factors. For example, if cargo is to be flown on an aircraft that is also carrying passengers, then the anticipated passenger load must be taken into account, since passengers have priority over cargo in most cases. In addition, any anticipated increase in cargo for a courier service will require an increase in fuel weight, resulting in less available space for cargo due to weight restrictions of the aircraft.

Other factors that affect courier capacity include:

• Aircraft type,

• Passenger baggage weight,

• Extra fuel weight,

• Reserved space (allotments),

• Mail weight

For example, the forecasted capacity for a flight is 50 tons and all 50 tons is booked at departure. If the actual capacity for the flight is 60 tons —10 tons more than forecasted — then the airline could have realized an increase in revenue associated with the sale of those 10 tons. Revenue is also impacted if forecasted capacity is higher than actual available space. In this case, some cargo may be re-routed to another flight, incurring offload costs.

# OVERBOOKING

Given a set of standard and reliable customers, a portion of capacity is reserved for them and the local demand is handled accounting this. In such a scenario, the demand accepted is generally over the capacity factoring for the decrease/ deviations in the “contract-based booking”. When the actual demand exceeds capacity on the day of transport/delivery the issue of overbooking arises.

At the flight level, for each flight, the show-up rate is forecasted based on historical behaviour of the flight. With an accurate show-up rate, the overbooking level for a given flight can more confidently be set.





**Demand Forecasting (based on weight)**

Demand forecasting determines how much cargo will tender for a particular flight.

Demand is forecasted by revenue type, which is determined by the rate charged and the density of

a shipment (rate/density type). Using historical data, sets of bookings are clustered together based on revenue and density.

This categorization enables forecasting and optimization to be performed by rate and load mix. A forecast is generated for each of these clusters, or revenue types, and for each flight, estimating the volume of each revenue type to be tendered at departure. The revenue management system’s optimization function identifies the level of demand to be forecasted, so, for example, if optimization is performed at the O&D level, then demand must be forecasted at the O&D level.



# PRICING

Cost-plus pricing is used to allow the originator of service to price goods and services in a manner that helps to ensure all costs associated with the effort are covered. At the same time, cost-plus pricing helps to promote the creation of a situation where the originator makes a profit and remains competitive with companies that offer similar services. Further, only a few simple pieces of information are required to establish a solid cost-plus pricing model.

The first key component to calculating cost-plus pricing is to establish what it costs to actually produce the end product or service. This involves considering all expenses that go into the production process, such as raw materials, labour and production costs, packaging, transport, and sales and marketing expenses. By dividing the cumulative expenses associated with producing the products by the number of units produced, it is possible to arrive at what is sometimes referred to as the [unit cost](http://www.wisegeek.com/what-is-a-unit-cost.htm). To this, the required profit margin is added. Further, a percentage mark-up needs to be in place based on the local competition.

An important issue under consideration is the “contract booking”. Given a set of standard and reliable customers, a portion of capacity is reserved for them and they are given a discount based pricing.

# PRICING STRATEGY

The best formula for courier job pricing involves a calculation of mileage, labour costs and special circumstances that make deliveries difficult.

Basically the pricing strategy that will be followed will be Differential Strategy. This in turn will be of two types:

Time Differential: with respect to when the package is to be delivered

Place differential: with respect to the distance to be travelled and the route taken.

1. Time Differential: In this type of strategy, as the date of placing an order is nearing the date of delivery, there will be a very steep increase in the prices. For those packages which do not necessarily have a stringent time constraint, the price increase will be less (If any)
2. Place Differential: In this type of pricing, the customer will have to pay more to get a courier delivered at a comparatively far off destination from the place of order.
3. Package Differential: A package weighing more or containing delicate or special items needs extra packaging. Hence based on variations in these, pricing will differ.

# PRICE REVISION

Price revision is done based on the fluctuations in the fuel prices. This aims at passing on the costs to the consumers. It is also based on pricing strategies adopted by the competitors, hence impacting to an extent on the profit margins.

For every additional USD 3 $ per barrel there will be an increase of 2.5 % in Fuel Surcharge.   
  
The proposed Fuel Surcharge Calculation method in domestic services would be computed based on the WTI/Brent index as updated on the site of US Energy Information Administration. This method closely links the fuel surcharge to prevailing market prices for Aviation Turbine Fuel, and will help you respond more quickly to changes in fuel prices in the market place.

FUEL SURCHARGE CALCULATION TABLE

|  |  |
| --- | --- |
| WTI $ /BBL | FUEL (as a %) APPLICABLE |
|  | 22.50% |
| >=53<56 | 25.00% |
| >=56<59 | 27.50% |
| >=59<62 | 30.00% |
| >=62<65 | 32.50% |
| >=65<68 | 35.00% |
| >=68<71 | 37.50% |
| >=71<74 | 40.00% |
| >=74<77 | 42.50% |
| >=77<80 | 45.00% |
| >=80<83 | 47.50% |
| >=83<86 | 50.00% |

# PRICE ELASTICITY

Demand is inelastic if the product/service is perceived as essential and there are no substitute products. Courier services as an industry fall into this category. Hence the only factor affecting a company is the competitor pricing. Given even non-courier specialists like Airlines, can also carry cargo from one destination to another, pricing is an important decision to be made.

# REVENUE CLASS FOR BLUE DART

Revenue class here is based on the time available for delivery of the services. If a package is to be delivered within a particular time of the day, then its priced differentially.

Following pricing can be made for differentiating:

Domestic 10:30 (To be delivered by 10:30 next morning)

|  |  |
| --- | --- |
| First 500 gms | rs.150 |
| Addn 500 gms | rs.75 |

Domestic 12:00 (To be delivered by 12:00 noon next day)

|  |  |
| --- | --- |
| Rate per kg | rs.99 |
| Minimum charges | rs.990 |

# OPTIMIZATION OPTIONS

A revenue management system can control flights at various levels — flight leg, segment or O&D. Determining which level to employ is based on several criteria, such as:

• Flight network structure — hub-and spoke versus point-to-point,

• Customer behaviour — local versus flow (multi-leg) shipments,

• Data availability,

**Leg-Based Optimization**

Leg-based optimization computes the inventory controls for each leg separately. No impact from the other flight legs is taken into account.

**Segment-based optimization**

It computes inventory controls for each segment — all flight legs containing the same flight number, taken together. In addition, segment-based optimization considers shipments that are shipped on a flight that uses multiple legs.

# O&D Optimization

O&D optimization computes bid prices based on where the demand starts (origin) and where it ends (destination), regardless of the number of flight legs involved. However, in order to take advantage of O&D optimization, the demand data must be available at the O&D level. O&D optimization takes into account all O&D combinations and the conflicts associated with flights flying over common legs to different destinations. O&D optimization is preferred for hub-and-spoke systems with many multi-leg shipments. O&D optimization maximizes the profit for the entire system — it displaces demand in a local (single leg) market with flow demand (multiple leg) if the displacement results in higher profits. However, with O&D optimization, if the O&D revenue is greater than the sum of the local traffic revenue from EC and CD, then the ED demand will be given preference. To compute the bid prices for a system, O&D optimization evaluates all local and flow traffic that is competing for space on a flight.

# REVENUE MAXIMIZATION

The revenue generated can be maximized by:

* Reducing the bargaining power of the contract customers so as to reduce the margins of discount
* Better route optimization
* Ensuring a better quality of service over the competitiors for a similar price range
* Investing in vehicles with better wear and tear resistance so as to reduce the maintenance costs

# QUESTIONNARE

1. **Factors affecting revenue**
   1. Fuel cost, competition, infrastructure constraints, shortage of skilled manpower.
2. **Inadequate infrastructure, increase in fuel cost and increasing competition – which is the biggest challenge to growth for the Blue Dart brand?** 
   1. All of them are concerns. One of the biggest challenges facing express operators today is Infrastructure – both air & surface. any disruption in services, due to either natural disasters or manufactured reasons, affects us adversely, as the day’s capacity inventory is lost forever.
3. **How do you manage the spike in crude prices etc? To what extent are you able to pass on the rise?**    
   Volatility in crude oil prices is a cause of major concern globally. Blue Dart has a fuel surcharge mechanism in place since December 2002 to neutralize the impact of the Aviation Turbine Fuel (ATF) costs. This has enabled us to manage and mitigate the phenomenal increase in costs.
4. **Are you seeing a capacity crunch, especially at the ports? Do you see a near term solution?**
   1. Yes. Further Delay in projects is another concern area as it not only results in cost over-runs but also affects trade and commerce adversely. Increase in private participation at ports is a positive development .
5. **What are your capex plans? How would they be funded?**We plan to invest approximately Rs. 1-1.25 Bn for expansion. All our capex plans are funded by internal accruals. They are a zero-debt company. The firm plans to add an aircraft on lease to its fleet of seven Boeing aircraft later this year and also expects to expand its retail store presence across the country to 1,000 by 2015 from about 400 now.

**How long does it usually take for importing a cargo container into India and for exporting one from India? How does it compare with other countries?**    
While international norms state that a gap of at least 30% should be maintained between installed capacity and actual throughput; the gap is about 8% at our Indian ports resulting in waiting time for the ships. As per a Parliamentary Committee report the average turnaround time for a ship in waiting at our ports was around 3.85 days in 2008-09 in contrast to the turnaround time of 10 hours at Hong Kong port. Indian ports are developing but need to catch up with their global counterparts at the earliest.

1. **Blue Dart’s offerings though known to be reliable, are available at a higher price bracket. Isn’t this an awkward pricing strategy for the Indian market?**
   1. For our customers, aspects like service quality, consistency, responsiveness and reliability are of paramount importance because these dimensions directly impact their business outcomes. These values make excellent attributes to building a trusted brand. When our customers experience optimal service with Blue Dart, they do not mind paying a premium for our products.
2. **DHL’s acquisition ofBlue Dart about half-a-decade back, did any remarkable change come about in Blue Dart’s operations as a result of this deal in India?**
   1. both Blue Dart and DHL draw on each others’ strengths. DHL’s market leadership in international air express complements Blue Dart’s established domestic strengths, to provide customers with a complete spectrum of domestic and international express services, airfreight, ground and charter services in the country.