

VIRGIN BLUE

NOTES ON YIELD MANAGEMENT

1. A yield management system (sometimes known as a revenue management system) is a system designed to maximise seat sales at the optimal price to maximise revenue per flight.
2. Yield management systems are designed to determine fare prices at different times to maximise the revenue per flight. Yield management is a function of:
 - (a) “yield”, which is the term used by the industry to refer to the average price paid by each passenger on a flight; and
 - (b) “capacity load factor”, which is the proportion of the seats on a flight that are filled with paying customers. This is derived by dividing the flight’s revenue passenger kilometres or RPKs by available seat kilometres or ASKs.
3. ASKs are calculated by multiplying the number of seats on a flight by the distance of that flight. RPKs are calculated by multiplying the number of paying passenger on a flight by the distance of that flight.
4. Yield management systems reflect the fact that passengers have different travel needs and varying sensitivity to the price of a flight. For example, business travellers generally need to travel at particular times to particular locations. They also tend to value the ability to vary their flight often at short notice. Demand from business travellers for a particular flight is unlikely to decrease in response to a slight price increase. By contrast, leisure travellers generally have more flexibility in the times they can travel and also their destinations. Once they have chosen a flight, they are less likely to value the ability to vary that flight. Leisure travellers are typically more price sensitive than business travellers and are more likely to take another flight (or not fly at all) if the price for a particular flight increases.
5. The goal of yield management is to ensure that each flight is as full as possible and that each passenger pays the maximum price they are willing to pay. So, while offering all seats for a discount price might fill a plane, it would result in some passengers (for example business passengers) paying less than they would otherwise be willing to pay for seats. Conversely, offering only full-fare tickets would ensure that each seat returned the maximum revenue, but would result in many empty seats. Successful yield management therefore involves matching a range of fares with a range of passengers.

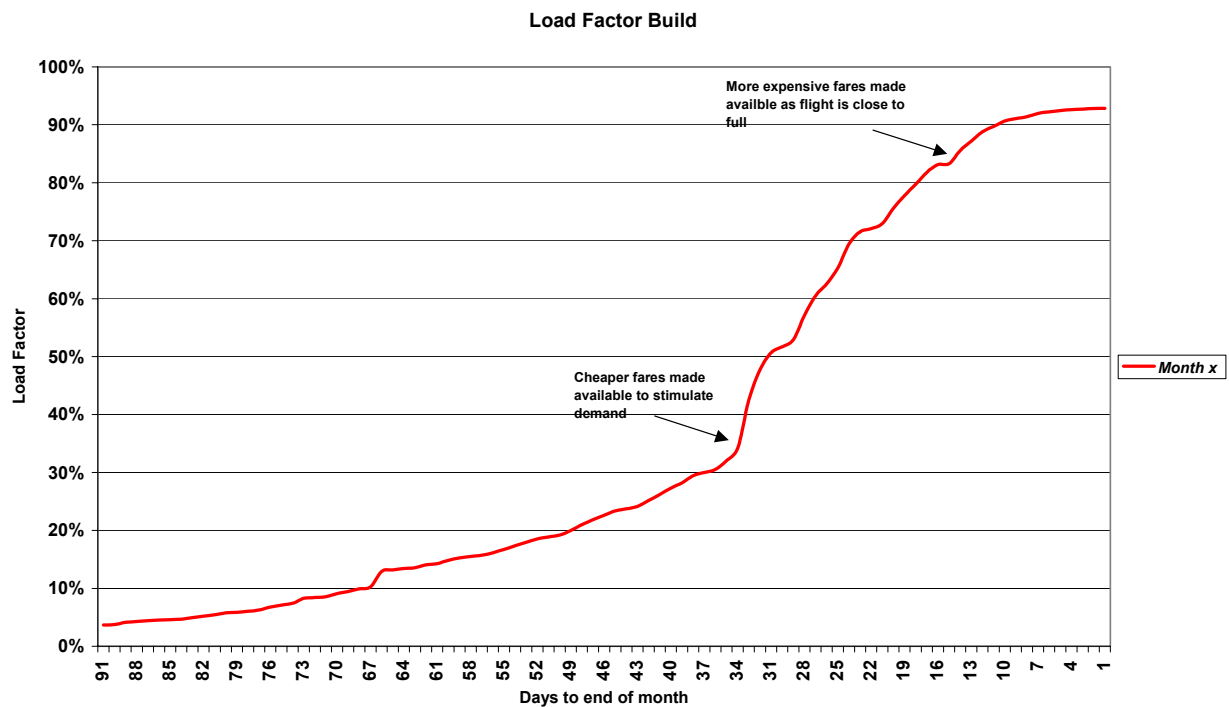
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6. Virgin Blue uses a computer based yield management system that uses mathematical formulae to forecast demand for seats, taking into account historical data, seasonal events, the existing levels of sales and other factors. Demand forecasts are used to determine the number of seats that should be made available in differing fare “buckets” or categories at a given point in time.
7. Virgin Blue has a range of airfares, which are used in implementing its yield management strategy. For example, there are typically 9 different fare buckets for any single flight, which are described for the purposes of the yield management system as “Y”, “B”, “M”, “H”, “Q”, “S”, “T”, “U” and “L” fares.
8. Virgin Blue’s strategy is to offer two simple categories of fares to customers. These are known as:
 - (a) “fair fares”, which are not refundable and not transferable, but permit customers to make schedule changes or cancellations up to 24 hours before the flight for the payment of a fee.
 - (b) “fully flexible fares”, which are not refundable and not transferable, but permit customers to make schedule changes or cancellations up to 30 minutes before the flight at no cost.
9. From time to time, Virgin Blue also offers promotional fares (“P” class) that are available for a limited period of time only.
10. The “fair fare” is the closest equivalent to Qantas’ discount economy fare and the “fully flexible fare” is the closest equivalent to Qantas’ standard economy fare.
11. However, for yield management purposes, Virgin Blue has 8 fare buckets for fair fares, 1 fare bucket for fully flexible fares and an additional bucket for any promotional fares on offer. Each fare bucket has a different price, which is initially determined at the time the flight becomes available, but may be changed subsequently before the time of the flight. Each fare bucket also differentiates between the price of tickets sold via the Internet and those sold through the call centre, since a discount is offered for Internet sales.
12. From the time the flight becomes available, the yield management system forecasts the number of seats that should be made available in each fare bucket at the present time in order to maximise revenue from the flight. Virgin Blue’s yield management team may also adjust the initial allocation of fares to various fare buckets to reflect their commercial judgement and past experience as to the best mix of fare prices and availability to maximise revenue from the flight.

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13. The yield management system records the number of bookings made in each fare bucket, the number of seats that are available and the revenue earned from the bookings. The system allows the yield management team to monitor the extent to which bookings in each fare bucket are reaching the optimal level required to satisfy the demand forecasts for each fare bucket.
14. The yield management team also actively monitors the activities of competitors. Team members typically check the prices and availability of competitors' fares for the routes on which Virgin Blue offers flights. It monitors this information on a daily basis using the Internet and telephone sales.
15. Virgin Blue's yield management team can expand or restrict the number of seats available in each fare bucket in order to maximise revenue from the flight. The team uses a combination of:
 - (a) the yield management system's forecasts (which uses historical information to predict how many tickets it might sell at a given price);
 - (b) forward sales (which allows the team to adjust prices and availability in response to actual conditions); and
 - (c) the availability of discount fares from its competitors.
16. Yield management systems operate within the boundaries of the overall business strategy of an airline. Virgin Blue, adopting a low cost model that stimulates demand, tends towards increasing capacity on a route in response to an increase in demand as its business model is based upon achieving large volumes of lower margin fares. In contrast incumbent or full service airlines would tend towards increasing the margin on seats sold rather than increasing capacity in response to increased demand.
17. A typical booking curve for a business orientated market is shown in figure 1 below. This shows that typically for business customers the majority of bookings occur closer to the day of departure. This is in contrast to bookings for leisure customers who tend to book their flights sometime prior to departure.

Figure 1: Booking Curve – Business Customers



18. Fare restrictions traditionally operate as an important part of yield management. Virgin Blue's fair fare has greater restrictions in relation to changes to flight times than its fully flexible fare. This gives greater certainty to Virgin Blue that a person will travel on a particular flight.
19. In general, an airline will wish to minimise the sales of its lowest priced fares and to maximise the sales of its higher priced fares. One way this is done is to have an initial allocation of the lowest priced fares and depending on the level of forward sales of higher priced fares, the number of lower priced fares may be reduced or increased. For example:
- if sales in the higher priced fare buckets are strong or expected to be strong, then a number of seats made available in the lower priced fare bucket may be transferred to a higher priced fare bucket; or
 - if sales in the higher priced fare buckets are weak but sales of lower priced fares are high, the number of seats made available in the higher priced fare bucket may be moved to a lower priced fare bucket.
20. Typically, the availability of seats in the lower priced fare buckets is higher the further in advance a person purchases their ticket and lower the closer the purchase is to the date of departure. This is because customers are more willing to pay a higher price to travel

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shortly before their departure. When the lowest priced fares remain widely available close to the date of the flight departure, this indicates that:

- (a) the airline is offering a large number of such fares; and/or
 - (b) the airline has a poor load factor for that flight. In this case, an airline might offer an increased number of lower priced fares because it does not expect to sell out.
21. When developing a new route, Virgin Blue's strategy is to offer an initial promotional price (typically available for the first five or seven days of operation but sometimes longer) followed by a "lead-in" or lowest permanent fare which is known in advance and represents Virgin's estimate of the lowest sustainable fare for the route. Virgin Blue offers a substantial proportion of seats at this lead-in fare, and through yield management, allocates other fares on each flight at various prices up to its fully flexible fare price.
22. Virgin Blue announces and commences sales in relation to each route well in advance of flights commencing in order to ensure that its load factors are sufficiently high from the commencement date and to estimate forward sales to assist in yield management. Launching a route without a prior announcement would result in very low load factors and yields and corresponding losses for each flight operated until sufficient forward sales are established.
23. The relative price-sensitivity of the majority of Virgin Blue's passengers imposes a limit on yield management, with the result that many seats on Virgin Blue's flights are sold at the lead-in or other discounted fares. Due to its positioning and service differentiation, Virgin Blue also sells seats without restrictions such as overnight stay requirements or restrictions on transfer. In addition, Virgin Blue's full economy fare is generally significantly below the full economy fares of the other airlines (by as much as 50% but averaging approximately 35%) reflecting Virgin Blue's reduced costs and its target market segment.
24. Virgin Blue measures yield and capacity load factors on a route by route basis. These measurements are used by Virgin Blue as a management tool to monitor the financial performance of a particular route.