

Animation 7.5

For any operation that is forecasting a growth in demand it is difficult to develop infrastructure and resources at exactly the same rate. This is because infrastructure development is typically not incremental – that is to say increasing at a steady rate – but a step-change.

The example in the text is Manchester United's stadium, which built an additional 8,000 seats in 2006 and another 20,000 in 2009. Clearly building one seat at a time makes no sense. Operations therefore have a choice. Build resources and infrastructure ahead of demand – called capacity leading – or build it after demand has grown – termed capacity lagging.

Capacity can be held level until demand has grown, at which point capacity can be built to satisfy this additional demand. The problem with this approach is that for a period of time there will be unmet demand, although the return on investment should be speedier.

On the other hand, capacity leading means that capacity is increased before demand is at that level. This means that for a period of time there will be unused capacity. This means utilization will be less than 100% and return on investment will take longer.

In reality, growing operations tend to have a combined approach, sometimes leading demand and sometimes lagging demand. This is partly because forecasting demand is challenging, since the business environment may change, and partly to manage cash flow and return on investment.