1.3.5: Forecasting Assumptions and Demand Patterns

Common Forecasting Assumptions:

1. Forecasts are rarely, if ever, perfect. It is nearly impossible to 100% accurately estimate what the future will hold. Firms need to understand and expect some error in their forecasts.
2. Forecasts tend to be more accurate for groups of items than for individual items in the group. The popular Fitbit may be producing six different models. Each model may be offered in several different colours. Each of those colours may come in small, large and extra large. The forecast for each model will be far more accurate than the forecast for each specific end item.
3. Forecast accuracy will tend to decrease as the time horizon increases. The farther away the forecast is from the current date, the more uncertainty it will contain.

Demand Patterns

When we plot our historical product demand, the following patterns can often be found:

Trend – A trend is consistent upward or downward movement of the demand. This may be related to the product's life cycle.

Cycle – A cycle is a pattern in the data that tends to last more than one year in duration. Often, they are related to events such as interest rates, the political climate, consumer confidence or other market factors.

Seasonal – Many products have a seasonal pattern, generally predictable changes in demand that are recurring every year. Fashion products and sporting goods are heavily influenced by seasonality.

Irregular variations – Often demand can be influenced by an event or series of events that are not expected to be repeated in the future. Examples might include an extreme weather event, a strike at a college campus, or a power outage.

Random variations – Random variations are the unexplained variations in demand that remain after all other factors are considered. Often this is referred to as noise.