

Business Forecasting

Subjective Assessment Methods





Quantitative Forecasting

So far in the unit we have discussed mainly quantitative or quasiquantitative approaches to forecasting

Advantages of quantitative forecasting methods:

Objective, Consistent, Capable of processing large amounts of data and considering relationships between numerous variables

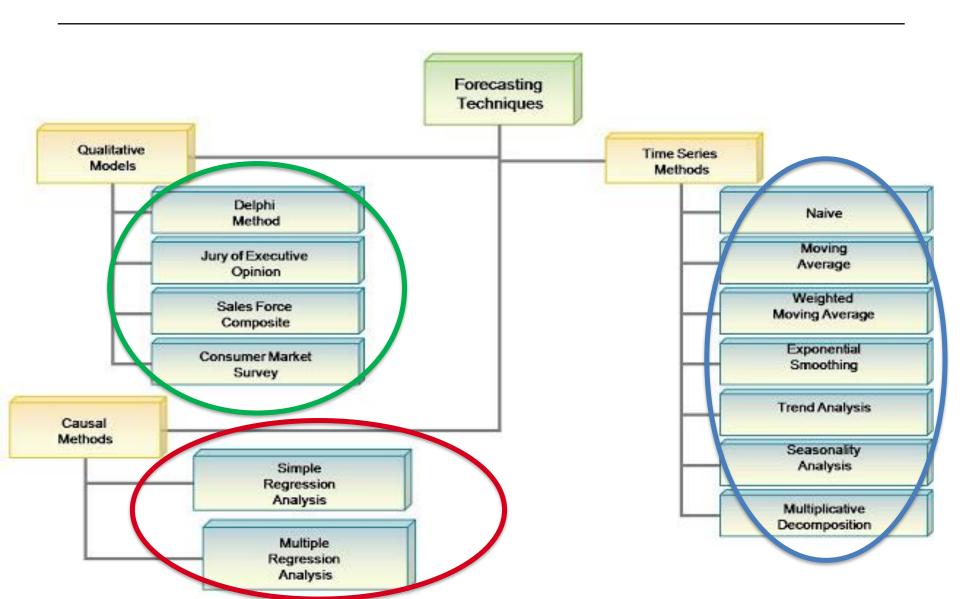
Disadvantages of quantitative forecasting methods:

Are only as good as the data upon which they are based.

When changes occur in the data that are not incorporated in the model, the generated forecasts cannot be accurate



Forecasting Techniques



Definition of MACQUARIE University Qualitative/Judgmental Forecasts

Judgmental forecasts, though subjective in nature, are formal predictions carried out in a quasi- systematic manner and are generally associated with some level of confidence in the forecast

Important to note it is not the forecast that is qualitative but the manner in which the forecast is produced

Judgmental forecasts are **not guesses or fiction** but based on relevant information

They may consider <u>more than one potential future</u> <u>outcome</u> with typically <u>probabilities of outcomes</u>

Use of Qualitative/ Judgmental Forecasts



Judgmental forecasts can be a <u>possible alternative</u> to quantitative forecasting when there is <u>little or no numerical</u> data available

May be useful in circumstances where the future environment is **unlikely to be similar to past environment** (rapid change in market)

May be an alternative when the <u>skill level of the forecaster is</u> <u>low</u> or <u>resources are not available</u>

Can be used in **short to medium term** but will have **advantages (over quant methods) in longer term forecasting**

Merits of Judgmental Forecasting



Judgmental forecasts have a <u>distinct advantage</u> over quantitative forecast methods in <u>medium to longer term</u> <u>forecasting</u>

Numerical extrapolation in these situations is unlikely to produce relevant and accurate forecasts

Many businesses also use judgmental forecasting methods as alternatives to quantitative method based forecasts in short to medium term forecasting

In these situations, the <u>relative merit and superiority</u> of judgmental forecasting over quantitative based methods <u>is not so</u> clear



Judgmental Methods

Two Major Categories:

<u>Subjective assessment methods</u> - use relevant (subjective) information and then <u>subjectively assess</u> and <u>weight the information to produce forecasts</u> (<u>Short to medium term</u>)

Exploratory methods involve consideration of **multiple potential circumstances, impacts and outcomes**. The information is subjectively assessed to produce forecasts for possibly **varied future circumstances** (medium to longer term

forecasting)





Subjective Methods

Subjective methods are <u>common in typical business</u> <u>forecasting situations</u>

They are typically used in place of quantitative forecast methods (possibly in conjunction)

Managers or relevant forecasters make <u>subjective assessments</u> of relevant information and determine necessary forecasts

Subjective Methods include;

- 1. Sales Force Composite Forecasting
 - 2. Jury of Executive Opinion
- 3. Subjective Probability assessments

Sales Force Composite Methods



The <u>views</u> of <u>individual Salespeople</u> and/or <u>Sales</u> management as to the future sales outlook.

1. Grass Roots Approach:

Collection of **individual Sales Assessments** (typically sales staff using Pipeline). Aggregated by **region**, **product** etc.

2. Sales Management Techniques:

Sales executive staff use the above information and other information to generate forecasts.

Executives may have access to <u>more info</u> and are trained to make better assessments over time (likely to lead to **greater forecast accuracy**)

Sales Force Methods (cont)



3. Wholesaler or distributor approach:

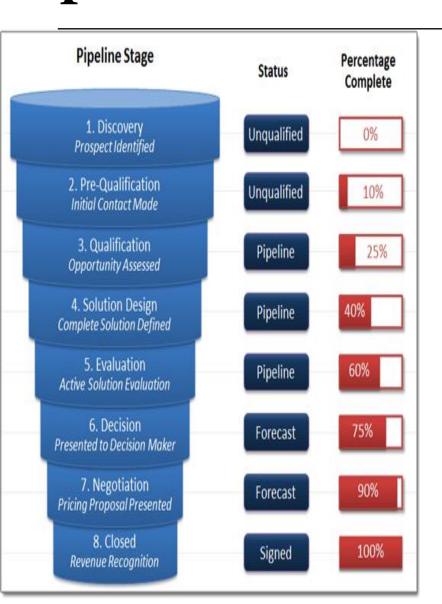
Generally used by **manufacturing concerns** that distribute their product through **independent channels of distribution** rather than though direct contact with the users of their products

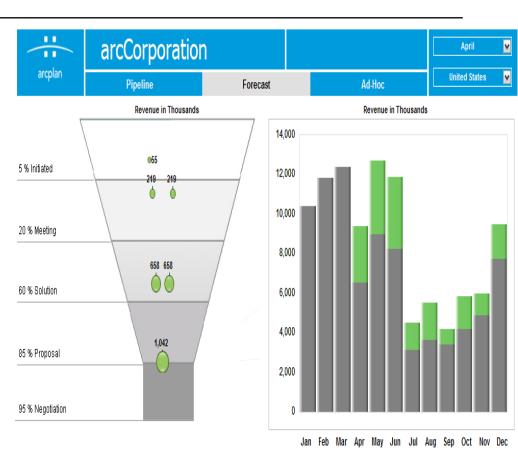
It involves asking <u>each distributor</u> of the product for information as to the <u>size and quantity of the company's</u> <u>product lines that they expect</u> to sell in the next quarter or the next year

The forecasts from the wholesalers/distributors are used as **forecast input for the organisation**



Pipeline Sales Forecasts





Probability in % Potential revenue 5 % \$ 55 Opportunity 1 20 % \$ 219 Opportunity 2 Opportunity 3 20 % \$ 219 60 % \$ 658 Opportunity 4 Opportunity 5 60 % \$ 658 95 % Opportunity 6 \$1,042

Period comparison of **Bookings** revenue vs **WEIGHTED FORECAST** revenue

n Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Committed 10,47611,900 12,433 6,578 9,031 8,294 3,157 3,668 3,459 4,254 4,935 7,769 Forecast 9,42912,75611,944 4,577 5,575 4,238 5,884 6,020 9,517



Jury of Executive Opinion

Most **basic** form, it consists of **corporate executives** sitting around a table and **deciding (as a group)** a **consensus** estimate for the item to be forecast

A <u>more sophisticated variation</u> has the jury periodically submitting its estimates <u>in writing</u> (possibly also through <u>Delphi</u>)

These written estimates may then be <u>reviewed by the CEO or</u> <u>another senior executive</u> who makes the final assessment on the basis of the opinions expressed or <u>they may be averaged</u> to arrive at a representative forecast.

Subjective Probability Assessments



Commonly used to incorporate <u>individual judgment</u> into forecasting

An attempt is made to identify a **range of values (probability distribution)** for the uncertain event

Forecasters asked to assign <u>probabilities to different</u> <u>outcomes</u> along the assumed range eg Economic growth outlook <u>High-30%</u>, <u>Medium 50%</u>, <u>Low</u> <u>20%</u>

Forecasters may have difficulty making subjective probability assessments and typically require guidance and training as to how such assessments can be made.