

RIZVI COLLEGE OF ARTS, SCIENCE AND COMMERCE

TYBMS

Logistics and Supply chain management

Unit 1

Chapter 4: Demand Forecasting

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SYNOPSIS

- ▶ **Meaning of Demand Forecasting**
- ▶ **Objectives of Demand Forecasting**
- ▶ **Top – down and Bottom Top Approach**
- ▶ **Approaches Methods**
- ▶ **Difference between Quantitative and Qualitative**
- ▶ **Forecasting Techniques**



OBJECTIVES OF DEMAND FORECASTING

- ▶ **Sales planning**
- ▶ **Production planning**
- ▶ **Adequate purchasing of Material**
- ▶ **Framing proper policies**
- ▶ **Enables to make sound plans**
- ▶ **Reducing inventory cost**
- ▶ **Reducing Warehousing costs**
- ▶ **Tracking overall performance**
- ▶ **Effective labor management**



APPROACHES TO FORECASTING

Top Down Approach

This approach starts with the big picture and then narrows in on a specific company. This guide will provide examples of how it works and explain why it's commonly used in financial modeling and valuation.

Bottom Top Approach

Bottom-up forecasting is a method of estimating a company's future performance by starting with low-level company data and working "up" to revenue. This approach starts with detailed customer or product information and then broadens up to revenue.

Two Approaches to Forecasting Demand

Top Down

1. Forecast economic conditions
2. Determine market potential
3. Estimate market share
4. Forecast sales

Bottom Up

2. Add individual estimates to get total forecast
1. Estimate demand in market segments or from organizational units in the company



TOP-DOWN APPROACH





BOTTOM-TOP APPROACH



FORECASTING METHODS

Qualitative Forecasting

- ▶ **Qualitative forecasting is an estimation methodology that uses expert judgment, rather than numerical analysis. This type of forecasting relies upon the knowledge of highly experienced employees and consultants to provide insights into future outcomes**

Quantitative Forecasting

- ▶ **It is a statistical technique to make predictions about the future which uses numerical measures and prior effects to predict future events. These techniques are based on models of mathematics and in nature are mostly objective. They are highly dependent on mathematical calculations and historical data.**

DIFFERENCE BETWEEN QUANTITATIVE & QUALITATIVE FORECASTING

QUALITATIVE FORECASTING

MEANING

When situation is vague and little data exist

CHARACTERISTICS

Based on human judgment, opinion, subjective and non mathematical data

SKILLS REQUIRED

It involves intuition and requires experience

MAJOR TECHNIQUE

Market survey, Jury of executive, Assessment by sales personnel, Naïve Approach ,Delphi Method

STRENGTHS

Can incorporate latest changes in the environment by making use of inside information

WEAKNESS

Can bias the forecasting and reduce forecast accuracy

QUANTITATIVE FORECASTING

When situation is stable and historical data exists

Based on facts and figures

Requires econometric/mathematical technique

Time series methods(moving average, extended smoothing, exponential Smoothing) Casual Technique

Consistent and objective: able to consider much information and data at one time

Often quantifiable data are not available .

TECHNIQUES OF FORECASTING

QUALITATIVE TECHNIQUES

- ▶ **Jury of executive methods**
- ▶ **Consumer survey method**
- ▶ **Assessment by sales personnel**
- ▶ **Naïve approach**
- ▶ **Delphi method**

QUANTITATIVE TECHNIQUES

- ▶ **Time series method**
 - ▶ **Moving average**
 - ▶ **Exponential smoothing**
 - ▶ **Extended Smoothing**
- ▶ **Causal Technique**

THANK YOU

