TUTORIAL-7

Forecasting

Q1. Based on the quarterly data from 1995: I to 1998: IV, MTR Foods estimates that potato chips sales can be projected using the equation

S_t = 50, 00,000 + 1, 00,000t

Where 1995: I is period 1. Actual fourth-quarter sales in thousands were as follows:

1995	5,450
1996	5,860
1997	6,270
1998	6,680

a. project sales for the first three quarters of 1999. **(6700, 6800, 6900)**

b. without using seasonal adjustment, project sales for 1999:IV **(7000)**

c. project seasonally adjusted sales for 1999:IV. **(7070)**

Q1. Consulting income at Kante Walsh associates for the period Feb-June has been as follows:

Month	Feb	Mar	April	May	June
Income ($100s)	450	495	518	563	584

Forecast July's income by using trend projection method. **(421.2+33.6t, 622.8)**

Q3. The following table relates to the price of a top-up mobile service provider and its demand (in thousands) in NCR region. Forecast demand for the mobile service for the sixth year by using:

Price	100	150	200	300	400
Demand	20	18	15	12	5

a) Three period moving average method **(10.66)**

b) Exponential Smoothing Method with w=0.7 **(7.452)**

Also comment which method provides more accurate forecasting. **($RMSE_{MA}$=8.125, $RMSE_{ES}$=5.051)**