YouTube Views Forecast in Excel

Forecasting :

It is a technique of predicting the future based on he results of previous data.

Ex: Flood forecast,Weather forecast, Sales forecast, etc.

3 methods of forecasting in Excel:

1. Using Formula
2. Using Graph Trend-line
3. Using Forecast Sheet

- **Using Formula**

=Forecast(X,known_y's,known_x's)

- **Using Graph Trend-line**

We can use line graph and check various trend-lines like linear, exponential, logarithmic, polynomial, etc.

Using R-squared value on chart, we find polynomial as an effective trend-line. We thus forecast for further dates to find the view values.

Forecasting Model Performance for Linear Regression model :

R squared - Coefficient of determination: measures how well the fitted regression line fits the data. R-squared is the proportion of variation that is explained by a linear model.

It has value between **0 and 1**, higher R-squared means better model performance.

Formula:

$$R^2 = 1 - \frac{RSS}{TSS}$$

Where:

- R2R^2R2 = Coefficient of determination
- RSSRSSRSS = Sum of squares of residuals
- TSSTSSTSS = Total sum of squares

- **Using Forecast Sheet**

We can select the data and use forecast sheet under Data tab in the ribbon.

We can ***Customize*** the Forecast Sheet window:

Choose the forecast type:

Line Chart: For a trend over time, Column Chart: For a bar representation.

Verify the Start Date and ensure it matches your data's frequency (daily/weekly/monthly).

Review or edit the Forecast End Date for how far you want to project views.

Adjust ***settings*** if needed:

Confidence Interval: Set a percentage (default is 85%) to show the range of likely values.

Seasonality: Let Excel detect it automatically or set it manually if you know your data's cycles.