

Types of Analyses

Time Series Analysis

- Used to study the consequences of measurements of variable or variables. The measurements are often made at regular time intervals.
- Explains how the past affects the future or how the two time series can “interact” with each other *i.e. Forecasts future values of the series.*
- **Has defining characteristic that order of observations is critical, because there is dependency between observations, so changing the order of the observations can change the meaning of the data.**

Stepwise Selection

- **Forward stepwise selection** starts with no variables in model initially, variables are added into the model one by one.
- **Backward stepwise selection** starts with all of the variables in the initial model, variables are removed from model one by one.
- **Combined stepwise selection** starts with forward stepwise then changes to backward stepwise, process alternates between forward and backward until no variables can be removed or added.

MOSIAC Analysis

- **Geodemographic topology based on sociodemographic data, lifestyles, behavior and preferences.**
- Used in Experian credit reporting – Comprised of financial variables like education level, size of household, occupation, income, etc.

RFM Analysis

- **RFM: Recency, Frequency, Monetary value**
- Cross-tabulates recency of last purchase in the period being studied with the frequency of purchases in that period, then examines the distribution of purchases.
- Answers the where, when, how, quantity, and what questions – analyses where the product was purchased? When was it purchased? How was it paid for? How much was purchased? What was purchased?

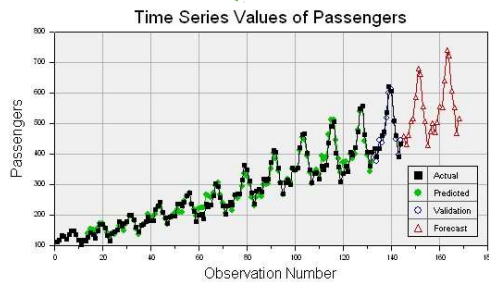
Survival Analysis

- **Sets of methods for analyzing data where the dependent variable is the period of time until an event of interest occurs.**
- **Churn and retention rates** for customers is an ideal scenario to use survival analysis.

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Churn and retention rates for customers is an ideal scenario

