THREE POTENTIAL PROJECT IDEAS

Project 1

I am considering doing my capstone project on the repair service business. Some scenarios I am considering are:

1) Culture affects repair: For example, during Diwali festival in India people buy gifts. If mobile phone is a gift. It can impact the mobile phone service business. If washer is a gift, it can affect the appliance repair business.

Null Hypothesis: During Diwali festival in India, mobile phone repair businesses have low demand

Alternative Hypothesis: During Diwali festival in India, mobile phone repair businesses have high demand

2) Geography affects repair: For example, some holidays are celebrated in one region more than in others. If the same company has repair business in multiple regions, holidays can impact the repair business. For instance, the automotive repair-people want to drive during holidays, they don't want to leave their car in the repair shop.

Null Hypothesis: During Diwali festival in India, mobile phone repair businesses have low demand in northern states compared to southern states.

Alternative Hypothesis: During Diwali festival in India, mobile phone repair businesses have high demand in northern states compared to southern states.

3) Inventory affects repair: For example, how much inventory should each repair store carry of a certain part, (may be top 10 critical parts)? Predictive analysis of inventory would be useful to the repair business operations.

The dataset I am considering is the repair business dataset.

Project 2

A second project I am considering is the prediction (forecasting) of travel expense budget for a firm. Large firms’ have annual travel expenses in the range of $15 to $20 million USD. Firms are constantly trying to forecast accurately and reduce the expenses, travel.

The ability to accurately predict travel expenses on a quarterly basis would be very helpful.

The dataset I am considering is the actual travel dollars spent by a firm. The dataset should have the following variables:

* 1. ID
  2. Traveler name
  3. Traveler’s region (if available)
  4. Travel start date
  5. Travel end date
  6. Travel from
  7. Travel to
  8. Airline ticket price
  9. Hotel actual
  10. Meals actual
  11. Rental car/Other transportation Actual

Project 3

A third project idea is to investigate whether news headlines are a predictor of stock market movement. I will investigates whether the Flex stock prices, traded on the NASDAQ stock market, move up or down based on the news headlines. How good are the news headlines as predictors of stock market movement?

The following, two publicly available, datasets will be used for this study.

1. News headline data: From Newsmax archive at <http://www.newsmax.com/Archives/Newsfront/16/2008/1/>

These headlines are NOT ranked by readers.

Each date has more than one headline.

Date Range: 01-02-2008 to 12-01-2016

1. Stock data: NASDAQ data from <http://www.nasdaq.com/symbol/flex/historical>

Date Range: 01-02-2008 to 12-01-2016