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Modeling Sales Promotions

The file **Promotiondata.xlsx** contains monthly sales (in pounds) of ice cream at a supermarket for three years. The file also tells you when promotions occurred. Promotions are known to increase sales during the month of the promotion but decrease sales during the month after the promotion. Develop a model that can be used to predict monthly ice cream sales. Hint: Add a term to your model involving the month number; the coefficient of this term will model the trend in ice cream sales.

1. What percentage of variation in ice cream sales is explained by your model?

   The overall percentage variation in icecream sales was **52.91%** approximately it was **53%.**

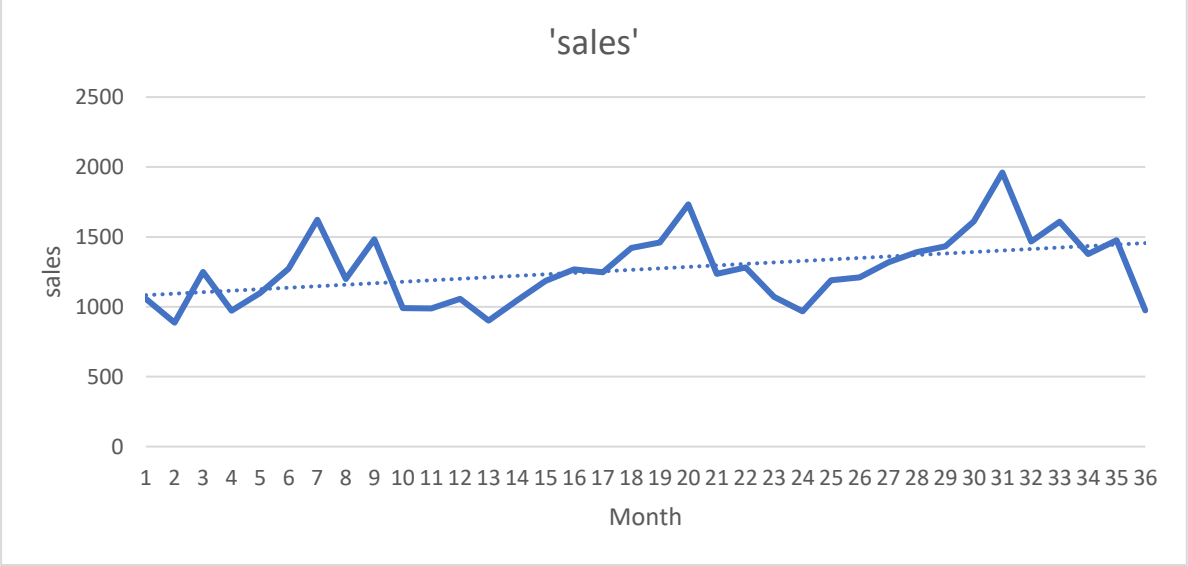
2. Fill in the blank:

   95 percent of forecasts for monthly sales will be accurate within **july to September(start from mid of summer season to beginning of autumn season)** .

3. What month appears to be the best for ice cream sales?

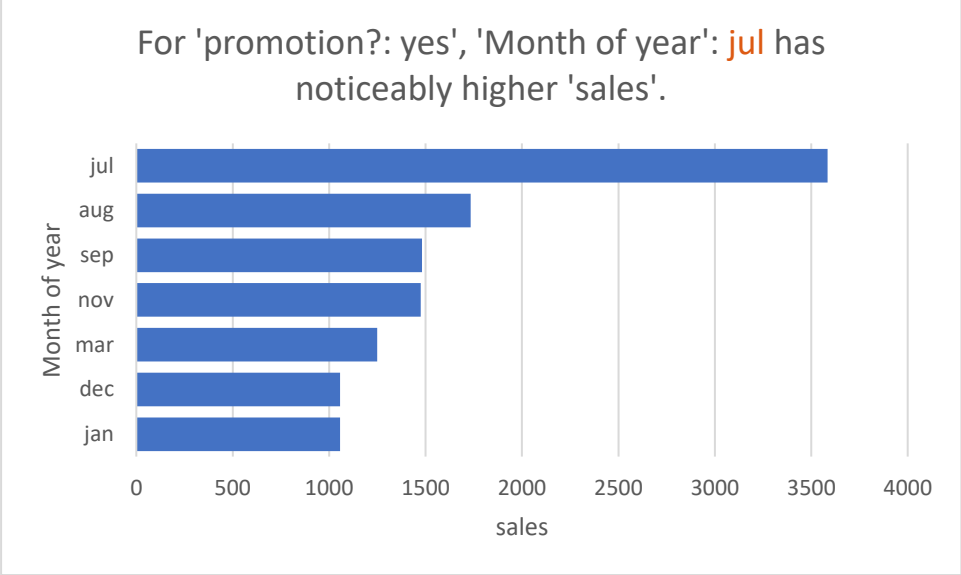
   July month appears to be the best for ice cream sales.

4. Describe the trend of ice cream sales.



- The trend mostly depends on seasonal change and promotions .
- The main reason is that the company is promoting icecream in particular period or month.
- In that time, the sales will increase as compare to expected. So Company sales was increased as whole by promoting it.

5. Describe the effect of a promotion on ice cream sales.



- As the effect of a promotion in July, the sales was increased highly.
- The trend for selling the ice-cream also mention that the sales was increased for the 3 years.
- According to the promotions, the company sales for every year is reaching some amount of high.
- With and without promotion was helping company to reach some amount of increase in sales but after promotion the sales was decreased, it will be managed in consecutive months.

For reference :
https://docs.google.com/spreadsheets/d/1IwSc4NKpg6S0SIkqfx_0dOAcrDsJBGW9E_7QtCXGECk/edit?usp=sharing