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Course: Marketing Analytics

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1. How would you like to interpret the outputs from the

procter & gamble laundry soaps
case?
Answer:
I would like to interpret the outputs by using the two way interaction.
Two way interaction: In the two way interaction, the relationship between the Independent variable and the dependent variable is moderated by the third variable. Standardized variables are centered around zero and have a standard deviation of 1. The effect of one variable over two or more variables is called interaction and the term is called interaction term. When the lines are perpendicular we can say that there exists strong interaction. The significant interaction is revealed by running Anova. The independent term and the moderator are recommended to be standardized.

2. Explain residual plot, Q-Q Plot, Diagnostic Plot, and

Marginal Model Plot with examples from the
bobbleheads case
Answer:
Residual plot:
The graph which shows the independent variable on the horizontal axis And the residuals on the vertical axis is called a residual plot. Residual is the value that we get when we subtract the predicted value from the observed value.

QQ plot:
The plot of the quantiles of two distributions against each other is called a QQ plot. Calculating and estimating the quantiles is the main step in the constructing of the QQ plot. The QQ plot follows the line x=y, at 45 degrees, if the distributions are identical.

Marginal model plot:
Marginal model plots are the plots in which each independent variable is on a horizontal axis and each dependent variable is on vertical axis.
Example:
In the residual plots, the variance is not impressive.
In the QQ plots, the relation seems pretty linear.
The Regression diagnostic seems good. In the marginal model plot the relation seems almost linear.

3. For the bobbleheads case, what kinds of other

research questions would you like to ask, and how
could you provide the answers?
Answer: How would the bobble heads help in building the finances?
Ans: By using good marketing strategies, we can get better profits.

4. See if you can improve upon the model with variable transformations

in the bobbleheads case.
Answer: We can improve upon the model using Log transformation.