Factors of a Yelp Review and their Influence

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Executive Summary

Reviews have become an important data source today for people who are looking to purchase goods and services. These reviews can have an impact on a business's reputation and overall success. Because of this importance of these reviews, we performed a marketing analysis on Yelp's data combined with income and education data from the U.S. Census, as well as the unemployment rate. The findings were presented to the current and potential business owners. Factors such as user reviews, ratings, review scores, review length and categories were used to find patterns and relationships to answer the following questions:

- 1. What are some keywords for good reviews and bad reviews?
- 2. Is there a correlation between review score and length of review text?
- 3. What is the relationship between median income and ratings on expensive restaurants?
- 4. What is the relationship between median income and number of restaurants?
- 5. Is there a correlation between the number of categories and average score?
- 6. Are people who leave more reviews likely to be more critical than people who leave less reviews?
- 7. Does lower unemployment result in more reviews on Yelp?
- 8. Can classification machine learning models be used to group or find patterns in businesses or reviews?