SALES PERFORMANCE OF ONLINE SHOPPING COMPANIES IN NORTH AMERICA

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Abstract

This study focused on how the sales growth of online shopping in North America affected on unit price, discount, shipping cost, ship mode, customer segment, product category, and shipping duration between 2009 and 2012. Our main purpose in using this data was to get an idea about the factors that affecting for the sales growth in a developed country. A multiple linear regression model was used to identify the main factors effecting sales performance using a dataset of 8,399 observations from Kaggle. This dataset includes one dependent continuous variable, four numerical independent variables, and three categorical independent variables. To use Multiple linear regression model, the data should satisfy four main assumptions but our dataset did not satisfy those assumptions. Therefore, we applied a log transformation to dependent variable. For obtaining the best model we chose the Backward Elimination Method. As a result, we found that unit price, discount, ship mode, product category and shipping cost affected to sales growth. The R-squared value of reduced model was 39.18%. Although there were some impact from five independent variables to dependent variable, because of the R-squared value was smaller than 50%, this model is not suitable for future predictions. Therefore, while this model provides some insight into the factors affecting sales growth, we recommend conducting further research using different datasets in the future.

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