Sales Forecasting and Late Delivery Prediction

DSC 680 Applied Data Science (2237-1)

Bellevue University

Professor Williams

Milestone 3 Questions and Answers

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Questions and Answers

1. What was the main challenge with this analysis?
2. How were the Machine Learning models chosen for this project?
3. What are future uses for this analysis?
4. What kind of ethical considerations were involved with this project?
5. Were all the research questions answered?
6. What are the main deployment recommendations?
7. What inspired this analysis?
8. Can this analysis be replicated for other organizations?
9. How was the data set chosen?
10. What program was used to perform the analysis?

1. Main challenge was keeping the scope for Sales Forecasting and Late Delivery Prediction separate during the analysis.
2. The ML models were chosen based on regression and classification problems for supervised learning. Additional models are recommended to be trained/tested for each respective case study.
3. Future uses for this analysis are very broad. Organizations can apply supply chain analytics techniques to recognize their own internal challenges.
4. Ethical considerations were considered at each step in the analysis. Data privacy was maintained for customers, steps were communicated transparently, and the end-use for the project was clearly established.
5. Yes, all the research questions were answered for both case studies. The findings may have even sparked further investigations for DataCo to pursue.
6. For deployment of the models, the first recommendation would be to train/test each model with current data. This data was from 2015-2018 and could represent out-of-date sales or late delivery findings. Next, consult with supply chain stakeholders on periodic monitoring frequencies.
7. I've worked in manufacturing for almost 10 years and realize the importance of supply chain efficiency. Addressing major concerns within this area can significantly impact an organization.
8. Yes, the methodology followed can be applied to other organizations. The data will be specific to that organization's supply chain where different challenges may be present. However, the CRISP-DM method can be applied to recognize these challenges and recommend actions for improvement.
9. Once the scope of the project was identified, the Mendely Data DataCo data set was found through Google Data Set Search. An alternative thought was to analyze data from my current organization, however the timeframe for approvals to use the data presented a major concern.
10. The analysis was performed in Jupyter Notebook (through Anaconda Navigator) via Python.