

# **Enhancing Nile eCommerce Platform Reviews**

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# Why Customer Reviews Matter?

- **97%** of consumers use online reviews when researching a local product or service.
- Nearly **88%** of customers say reviews have an impact on their purchase decisions.
- Only **13%** of customers will consider purchasing a product with low review scores.

**More positive reviews = More sales & Better brand reputation**

Nile,  
A large South American eCommerce platform

# Objectives

Develop a predictive model to identify customers who are likely to leave positive reviews:

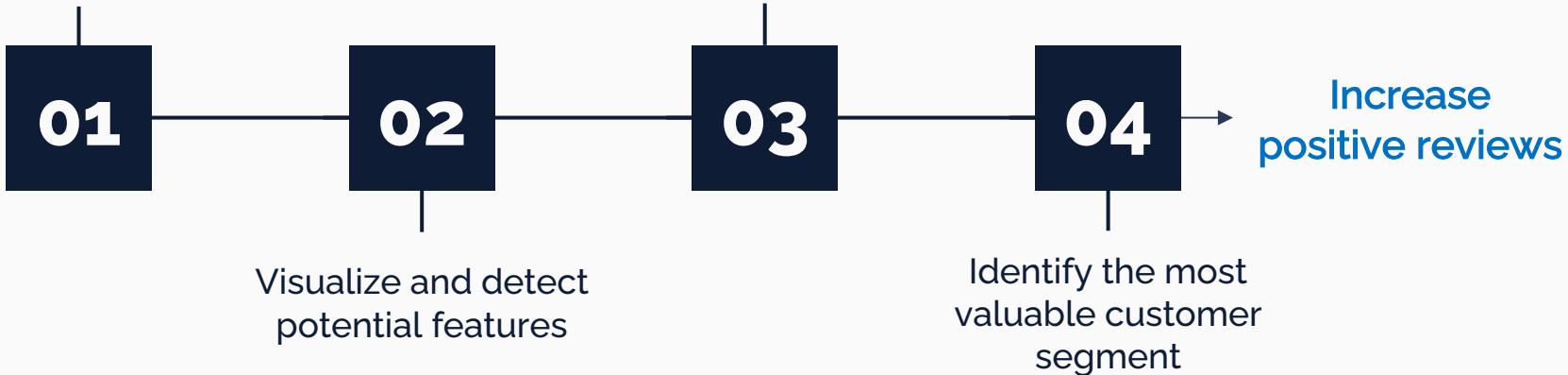
- Accurately predict and target high-review customers to maximize Nile's ROI and build a reputation for trust
- Increase the quantity and quality of positive reviews in a resource efficient way



# Project timeline

Data Exploration  
and Preparation

Train, validate, and  
compare models to  
identify the best-  
performing one

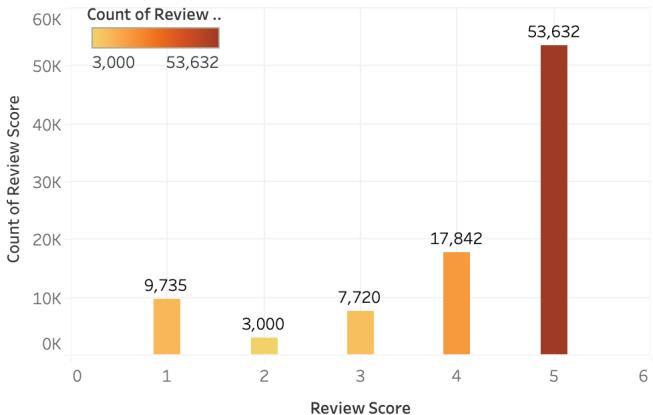




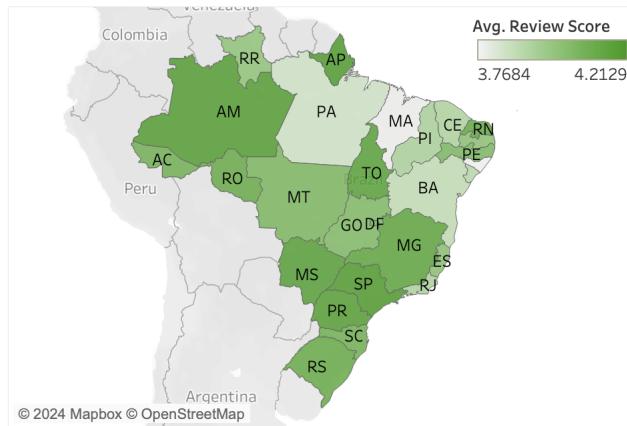
# Key features related to review scores

# Review Score Analysis

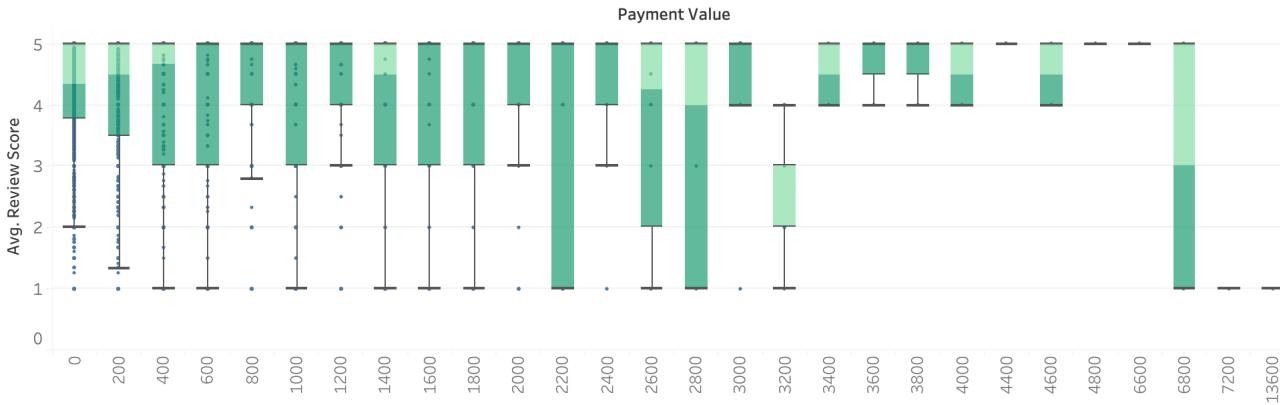
## Count of Review Scores



## Agerage review score per customer state



## Payment Value Impact on Review Scores

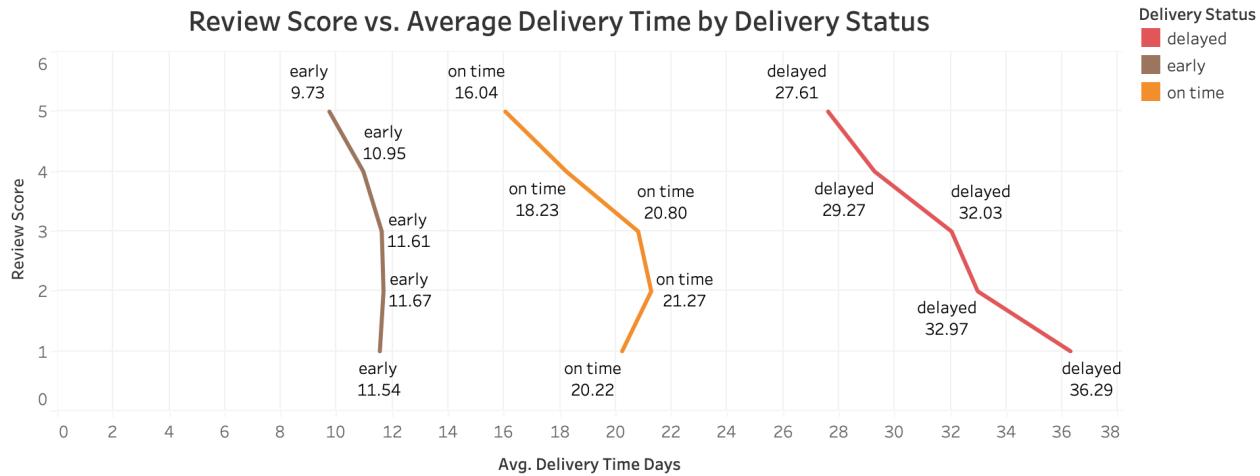


# Delivery Time & Status Impact

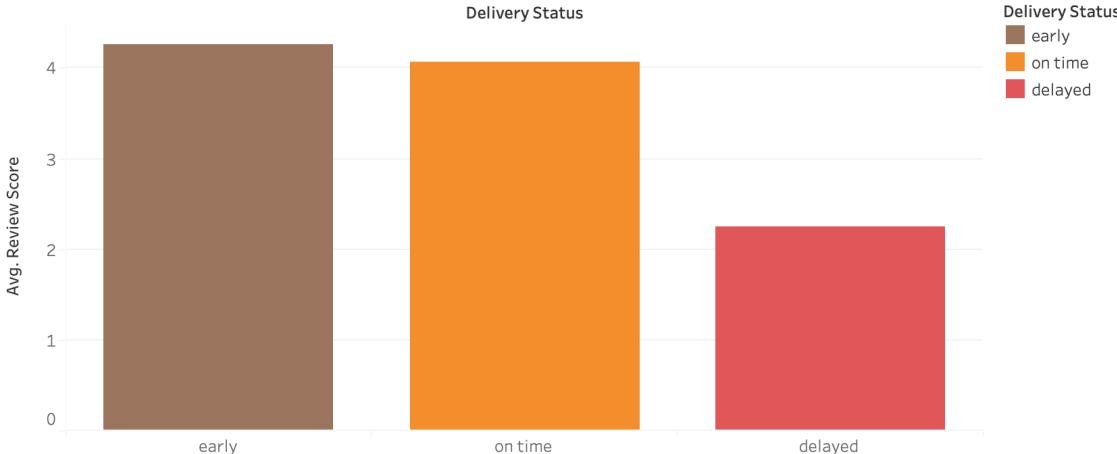
## Delivery Time Impact on Review Score



## Review Score vs. Average Delivery Time by Delivery Status



## Delivery Status Impact on Review Score



## Review Score per Product Category



# Features influencing customers review Score

01

Customers in some states give higher review scores

02

Some certain categories get higher review scores

03

Fast delivery enhances review scores

04

Higher payment values are associated with higher and more consistent review scores

05

Early delivery gets higher review scores

# XGB? GBDT? Or Random Forest?

## Model Accuracy and Performance Metrics

Model	Accuracy	Macro F1 Score	Macro Precision	Macro Recall	MSE	R2
XGB	0.8109	0.6316	0.7679	0.6123		
GBDT	0.8109	0.6177	0.7879	0.6018		
Random Forest-classification	0.8013	0.6428	0.7181	0.6237		
Random Forest-regression					0.1556	0.1029

Accuracy, MSE, R2, Macro F1 Score, Macro Precision and Macro Recall broken down by Model.

**81%**

Accuracy

**77%**

Precision

**61%**

Recall

# Performance dashboard

## —XGB model

### Predicted Review Scores & Model Performance

#### Model Accuracy and Performance Metrics

XGB

Metric

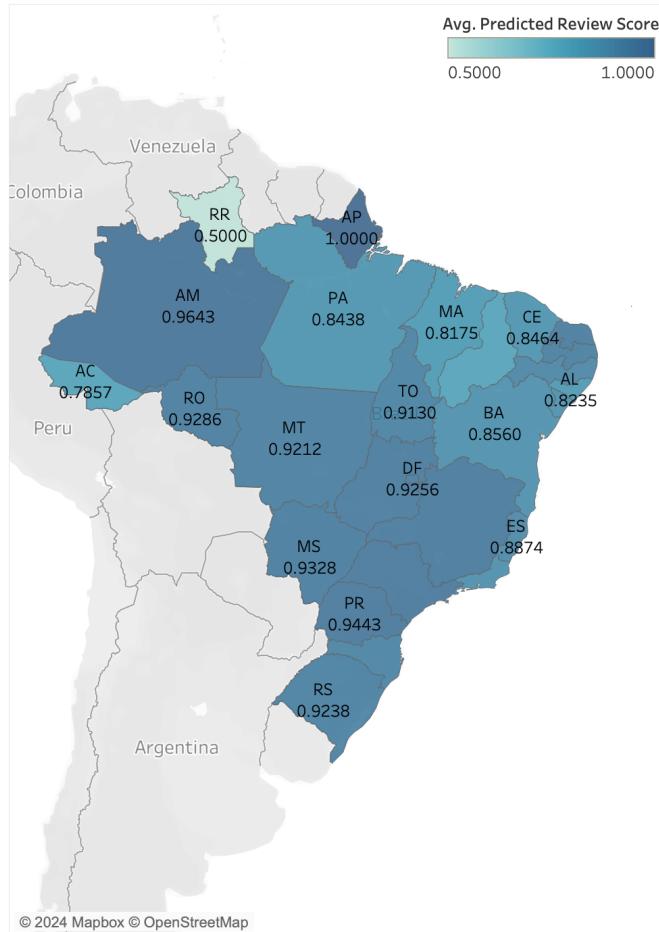
Accuracy 0.8109

Macro F1 Score 0.6316

Macro Precision 0.7679

Macro Recall 0.6123

#### Average Predicted Review Score by State



#### Predicted Positive Reviews by Payment Value Range

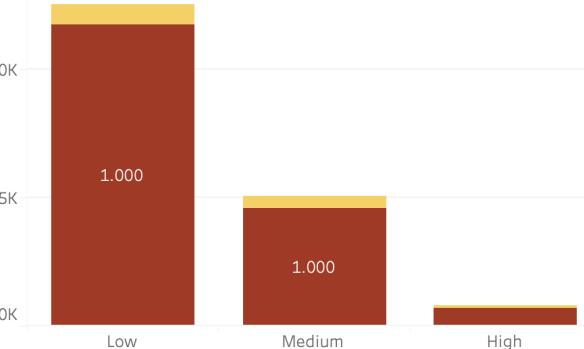
Range

Predicted Review Score

Payment Value Range

0.000 1.000

Count of Predicted Review Score



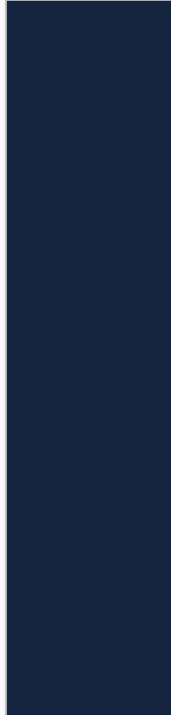
# Recommendations

1. Use our model to predict the potential higher review score customers
2. Focus incentives on customers predicted as high scorers to maximize ROI.
3. Integrate our predictive model into Nile's email automation system to send targeted follow-up emails to customers likely to leave high reviews.
4. Promote top-rated products predicted to receive positive reviews using visible labels or recommendation sections.
5. Incentivize top-rated product categories by highlighting them on Nile's homepage or through special promotions to increase sales from high review scorers.
6. Implement a system for precise delivery schedules ensures timely and accurate shipping.

# Why choose us?

- Professional
- Innovative
- Tailored solution: focusing on state-based, delivery, and payment behaviors which may improve revenue directly.
- We deliver data-driven results that will help Nile stay ahead in the competitive eCommerce space

Let's work together to enhance Nile's customer review experience!





# Thank you!

## Appendix

<https://www.websitebuilderexpert.com/building-online-stores/online-review-statistics/>