



Cohort Analysis for IronHack Payments

by:

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Exploration Data Analysis

EXPLORATION

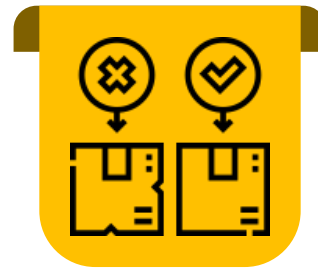


Examine the structure, data types, and relationships between datasets.

Analyze distributions and key descriptive statistics.

Identify missing values, duplicates, and inconsistent formats.

DATA CLEAN & QUALITY



Correct inconsistent or missing values.

Secure standardize formats (e.g., dates, types, status).

Create new columns derived from existing data (e.g., cohorts based on creation month).

VISUALIZATION

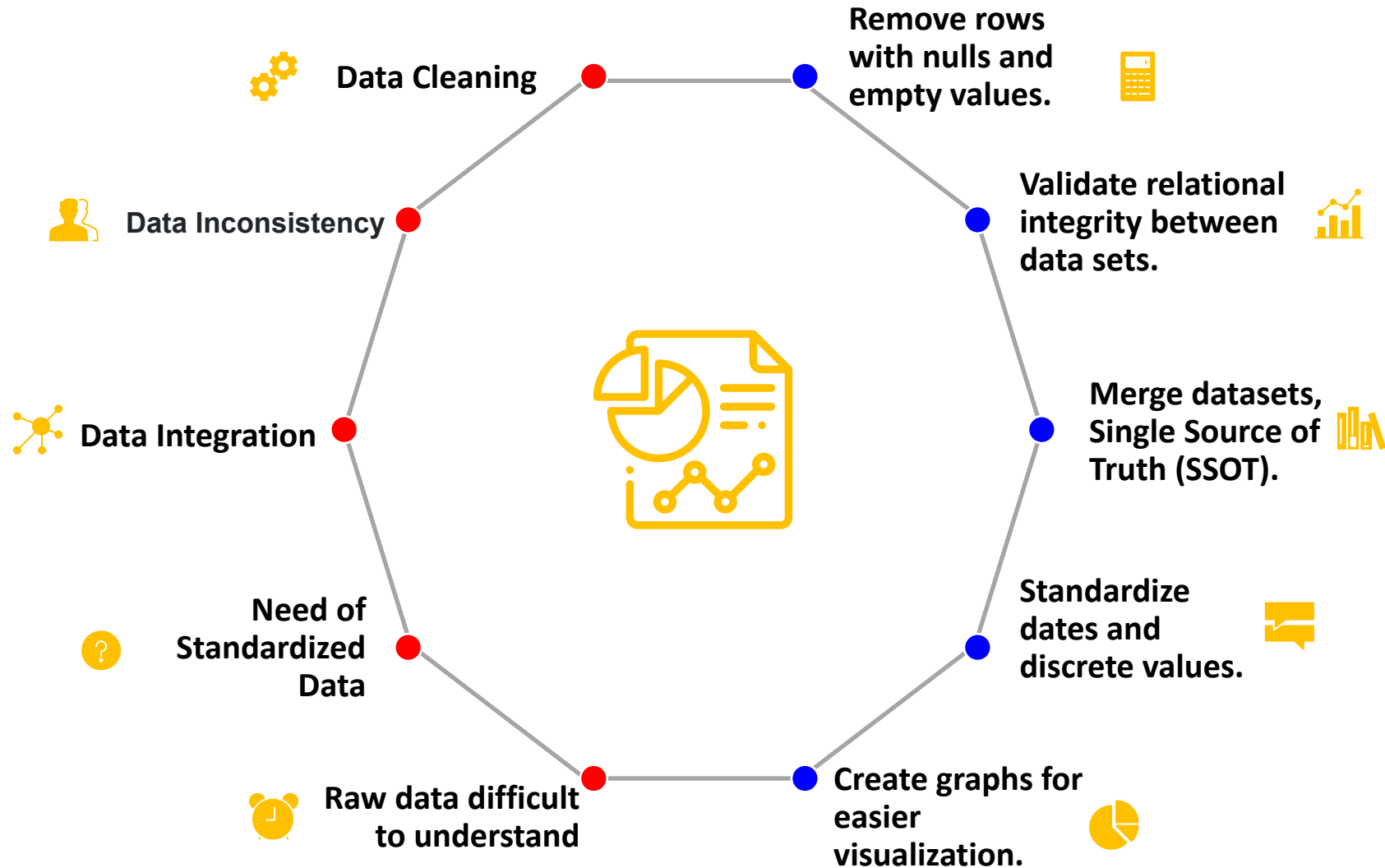


Document results, observed patterns, and interpretations.

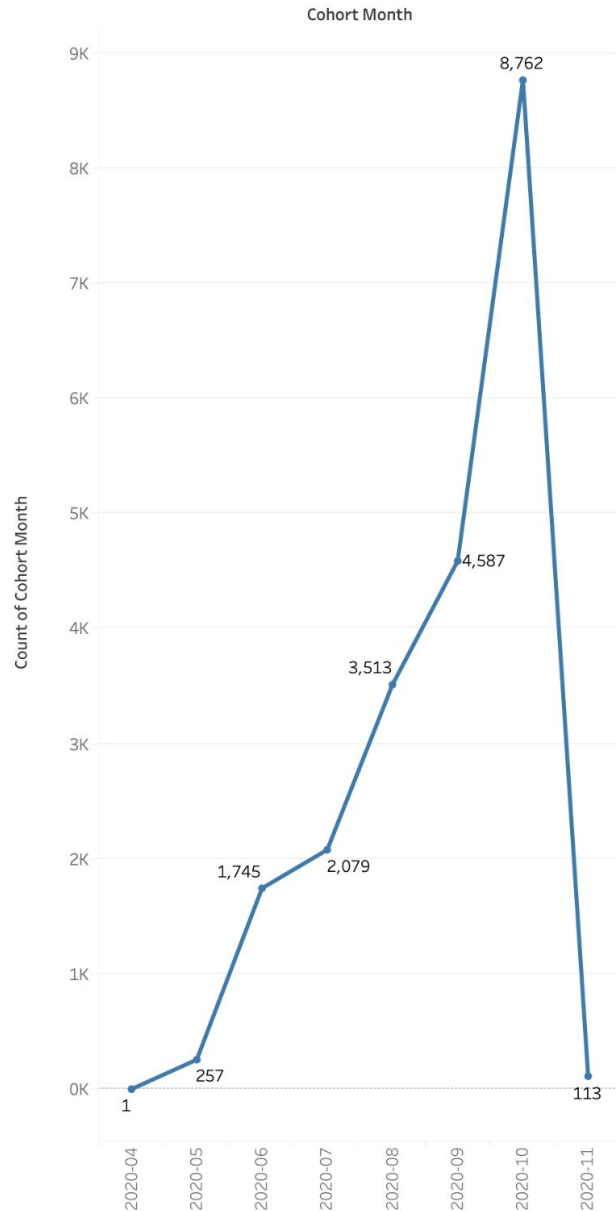
Create visualizations to explore trends and patterns (e.g., histogram of amounts, usage frequency by month).

Create charts to showcase the monthly evolution of metrics.

Challenges and Solutions

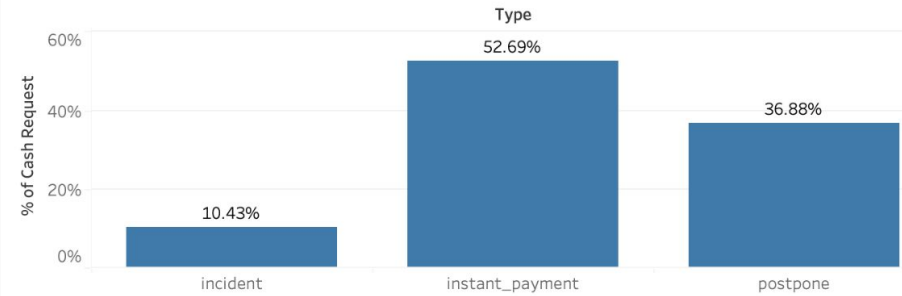


FREQUENCY OF REQUEST BY COHORT



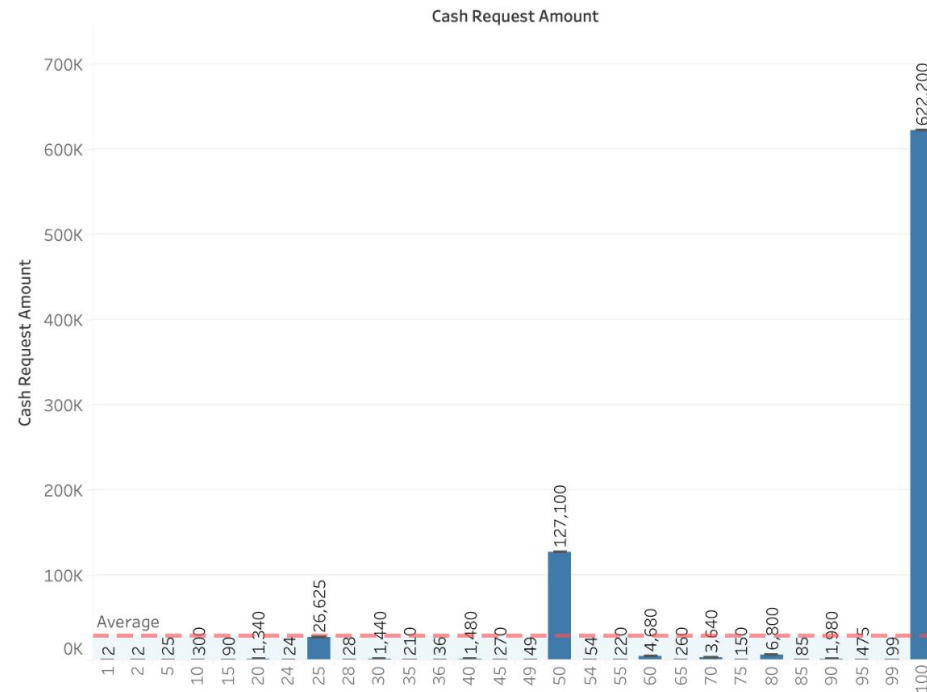
TOTALS

Rate of Services Generate (All)



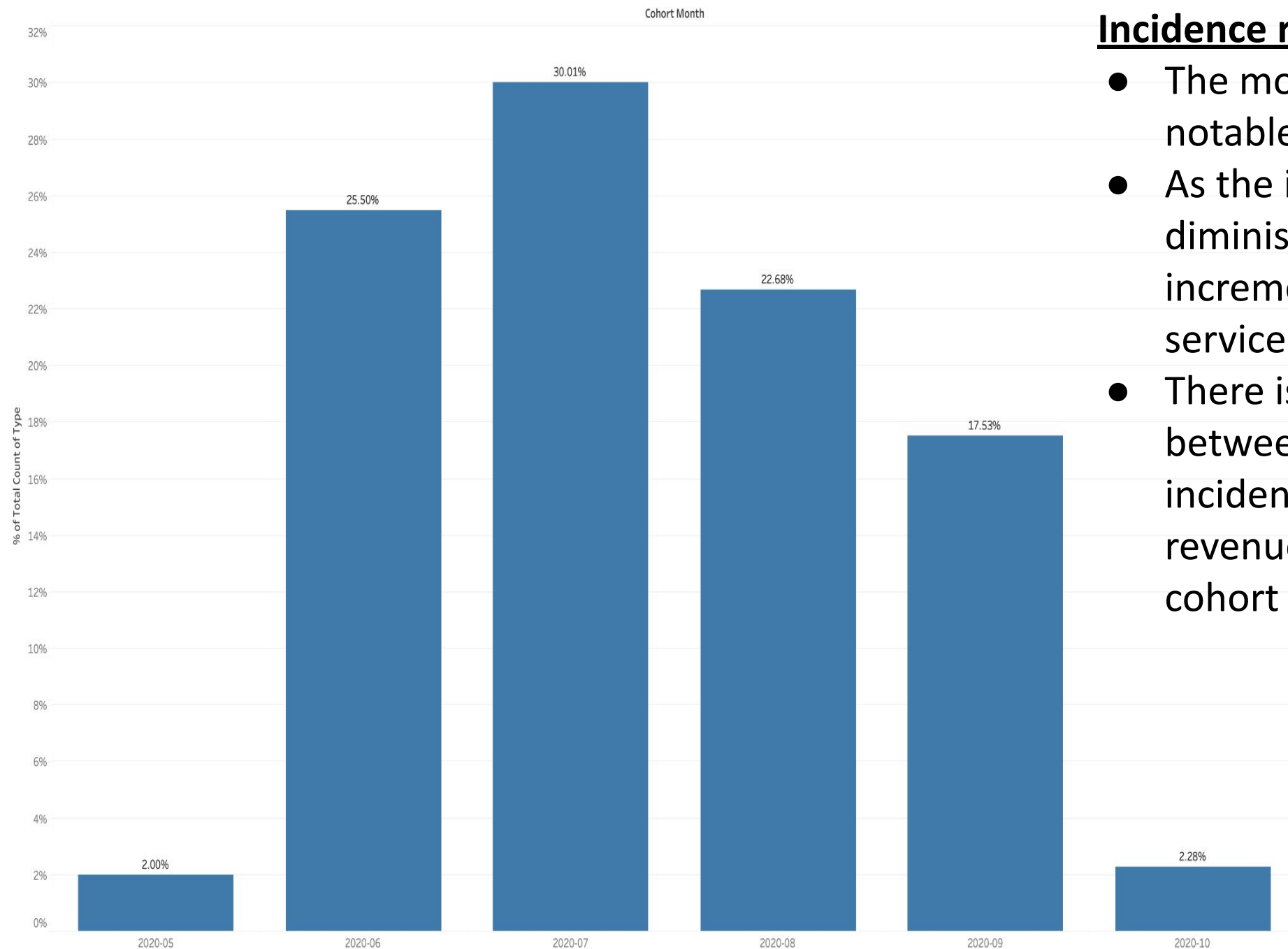
Instant Payment and Accepted Income: \$799,664
Effort Index: 2.045 Success Index: 0.4890

Cash Frequency Distribution



Success vs Effort Index

- More effort than necessary is being invested in transactions, but an adequate completion rate is not being achieved.
- Future Analysis: check the cost per transaction, possible bad data, problems with the fees request system, bad process...



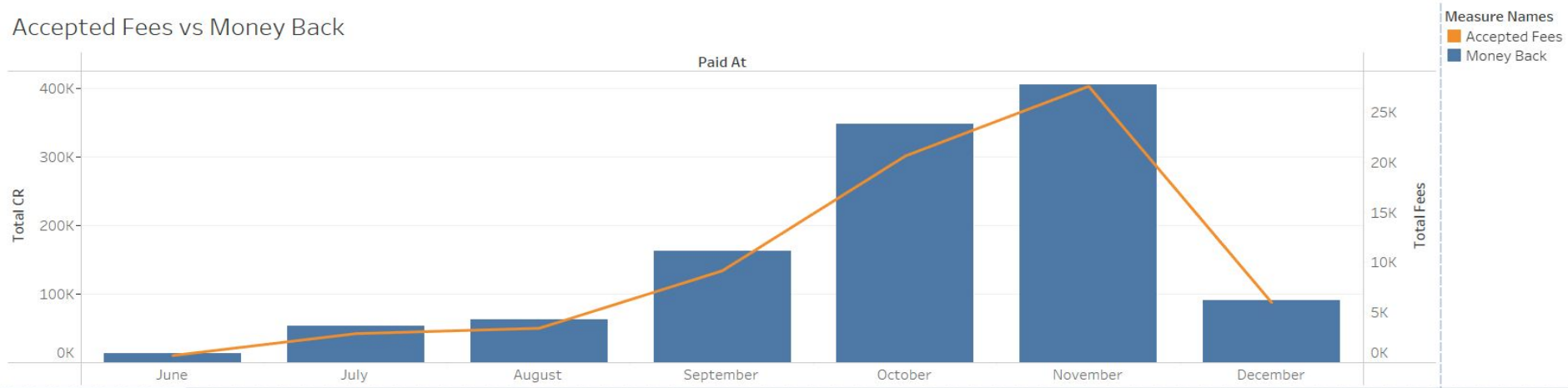
Incidence rate

- The month with the highest notable incident rate is July.
- As the incident rate diminished, there was an increment in the total of services and clients.
- There is a direct correlation between the increment of incidents and the reduced revenue generated in the cohort month.

Highly Seasonal Pattern

- Most CRs are grouped nearest to end of year holidays, peaking significantly in October and November.
- The yearly average on CRs of all status does peak nearer to August, suggesting a prognosis of the peak months may be possible if some external factors come into consideration.

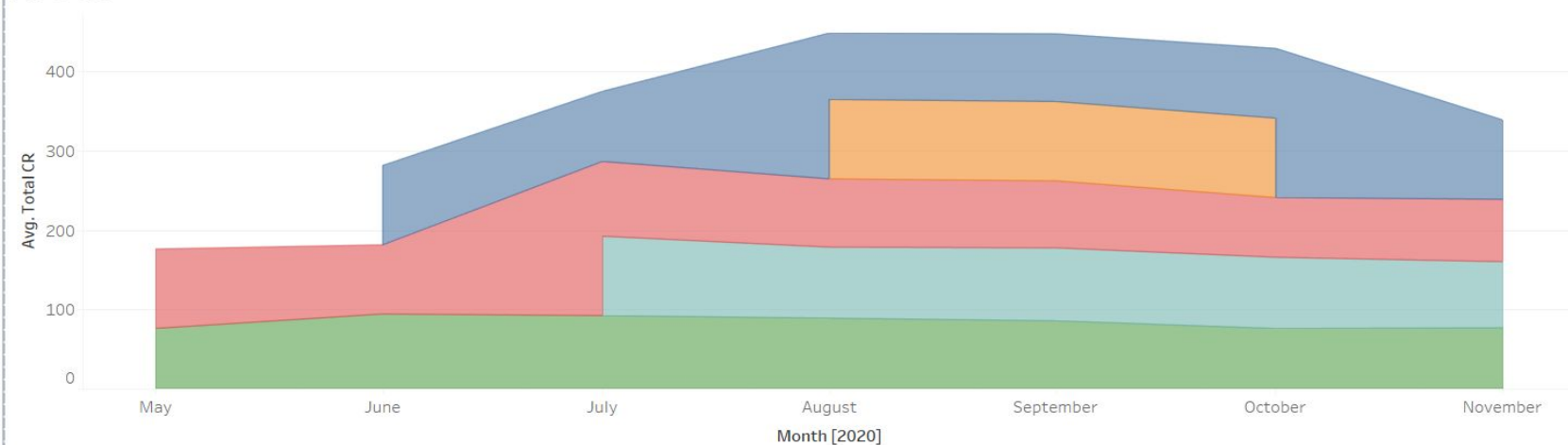
Accepted Fees vs Money Back

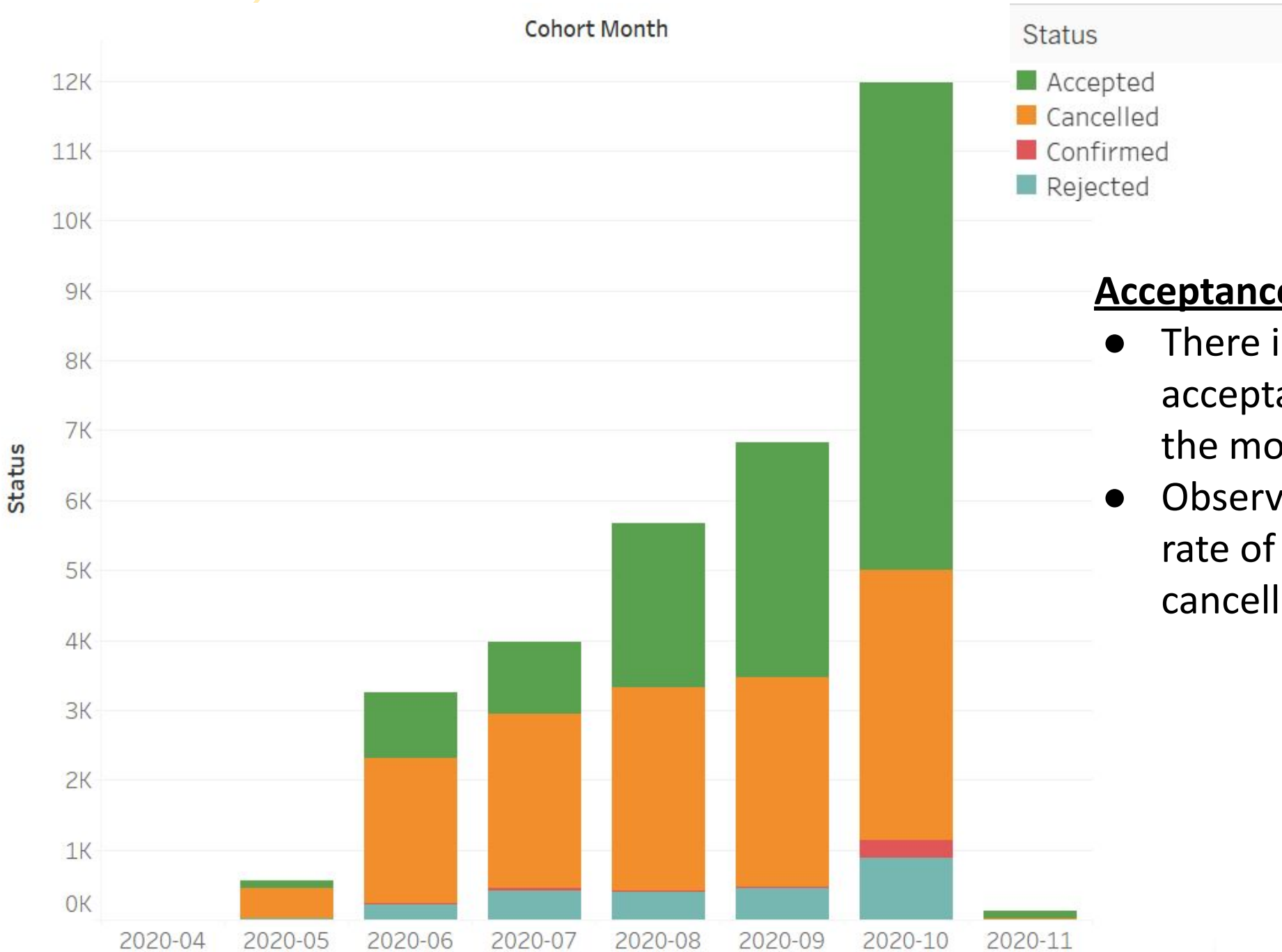


Cash Status

- active
- canceled
- direct_debit_rejected
- direct_debit_sent
- money_back

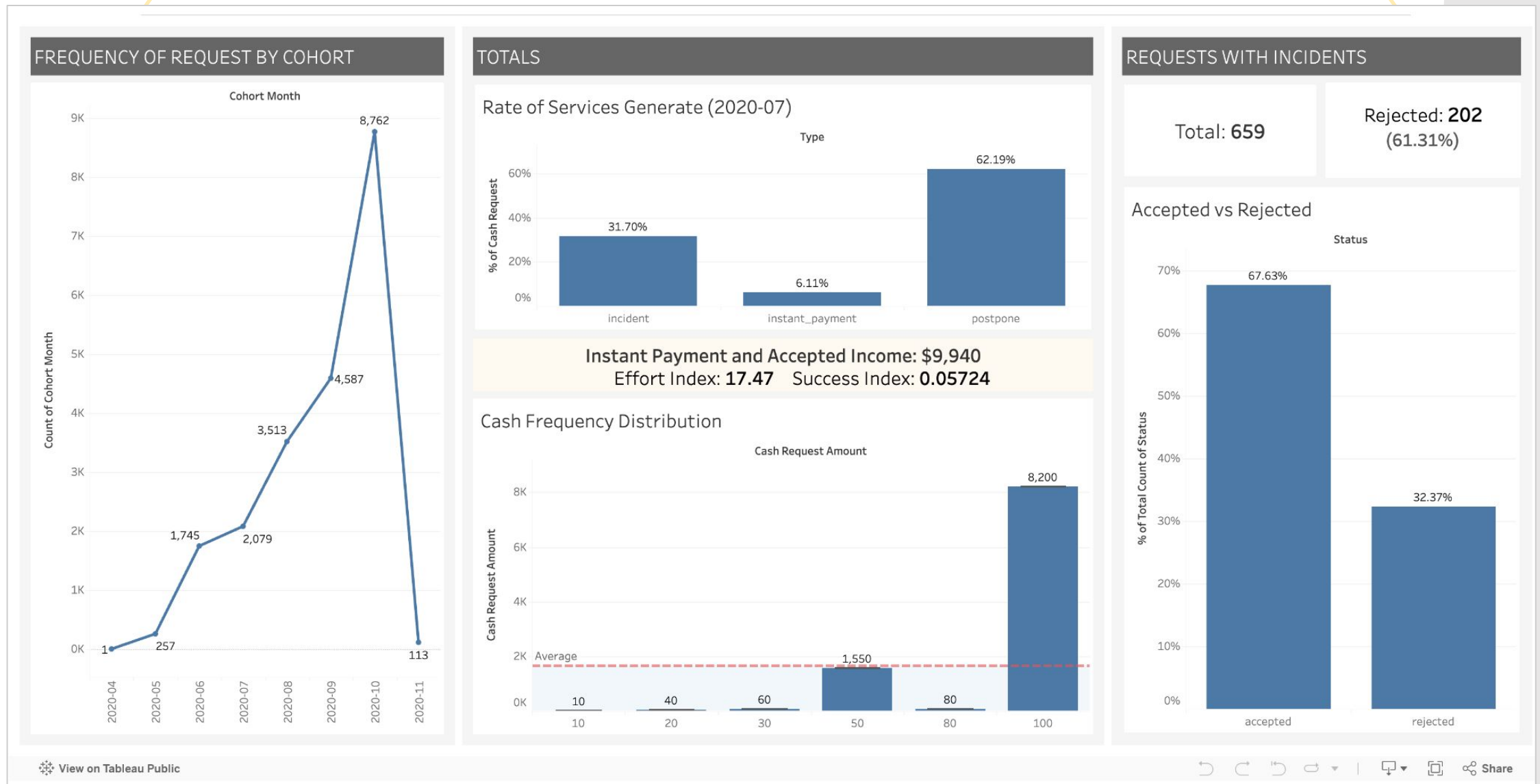
AVG CR





Acceptance rate

- There is an increment in the acceptance rate throughout the months during the cohort.
- Observable difference in the rate of acceptance and cancellation.



Dashboard Publication in Tableau Public

https://public.tableau.com/views/DSMLBootcampProjectI-DemoData/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

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Navigation

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- ☐ Presentation
- ☐ Dashboard

IronHack Bootcamp - Project 1 Dashboard

Business Challenge: Cohort Analysis for Ironhack Payments (Project 1)



Introduction

IronHack Payments, a forward-thinking financial services company, has been offering innovative cash advance solutions since its inception in 2020. With a commitment to providing money advancements for free and transparent pricing, IronHack Payments has garnered a substantial user base. As part of their continuous effort to enhance their services and understand user behavior, IronHack Payments has commissioned a cohort analysis project.

Project Overview

In this project, you will conduct a comprehensive cohort analysis based on data provided by IronHack Payments. The main objective is to analyze user cohorts defined by the month of creation of their first cash advance. You will track the monthly evolution of key metrics for these cohorts, enabling IronHack Payments to gain valuable insights into user behavior and the performance of their financial services.

Objectives Definition

Conclusion

- Cleaned and merged datasets for a comprehensive analysis.
- Identified patterns in service usage, incident rates, and revenue generation.
 - Developed a new metric focused on instant payment efficiency and monthly cohorts.
 - Observed a rise in instant payment acceptance, correlating with client growth.
 - Detected seasonal peaks in service usage during late-year holidays.
 - Detected more effort than necessary is being invested in transaction.
- Recommended prioritizing holiday marketing or incentive programs for instant payments to boost profitability.
- Suggested extracting client location data to identify top-performing regions and demographics.

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THANK YOU

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