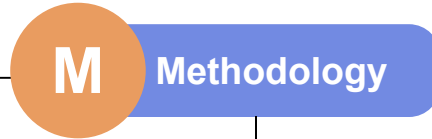


SMS Trend Analysis



Methodology



Define Objectives

Clearly define the goals and objectives of the data analytics project.



Data Collection

Ensure that the data collected is accurate, complete, and relevant to the objectives of the project.



Data Cleaning

Data cleaning and organization to handle missing values, outliers, or inconsistencies.



Analysis

Explore the data to gain insights, identify patterns, and understand the main characteristics of the dataset.



Interpret Results

Interpret the results of the analysis in the context of the project objectives.

Objectives

Objective 1



- To determine the optimal times of day and days of the week to send SMS messages to maximize Payments

SMS Trend Analysis

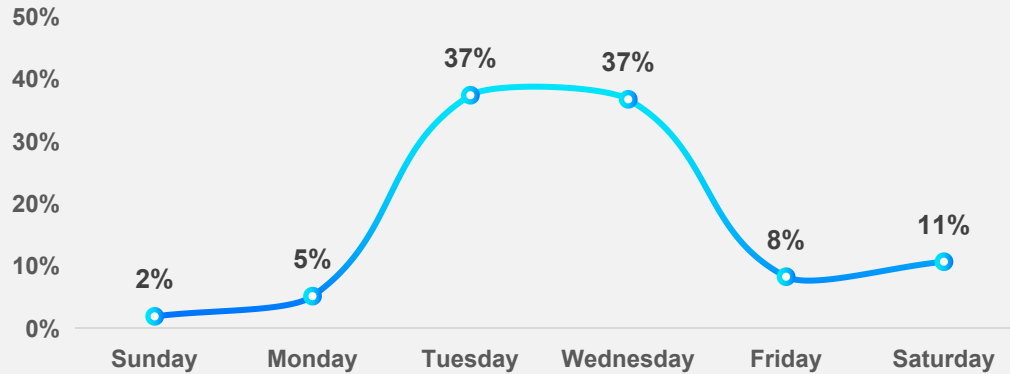


Objective 2

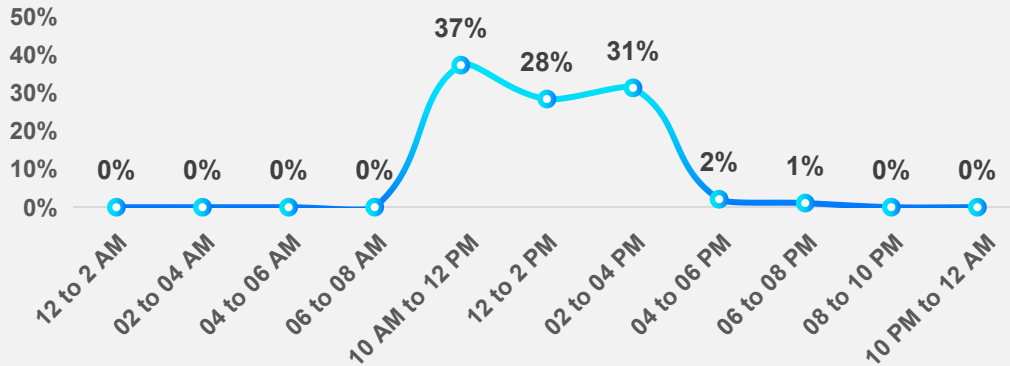
- To determine the optimal times of day and days of the week to send SMS messages to maximize Portal visits

% SMS Sent Trend Analysis

% SMS Sent (Day Wise Trend)



% SMS Sent (Time Wise Trend)



Insights:-

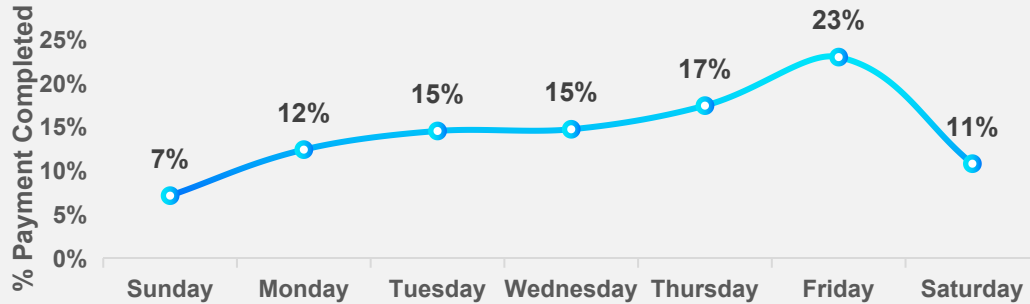
1. In day wise trend, we observe that a combined total of 74% of our SMS communication occurs on Tuesdays and Wednesdays.
2. Based on time wise trend, we are currently sending a total of 96% of our SMS messages between the hours of 10 am and 4 pm.
3. Out of the entire dataset, only 38.1% of the SMS messages are successfully getting delivered to the customers.

#Note:

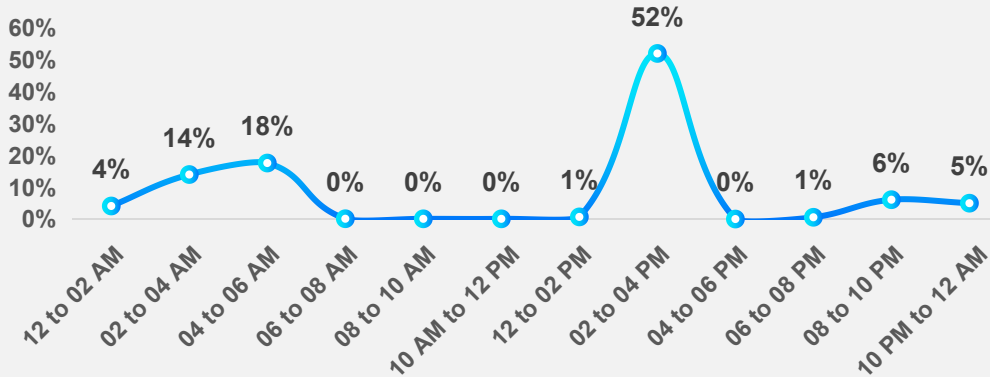
1. These charts depict trends specifically focused on successfully “delivered” SMS messages.
2. Analysis is done considering IST timezone.

% Payment Completed Trend Analysis

% Payment Completed (Day Wise Trend)



% Payment Completed (Time Wise Trend)



Insights:-

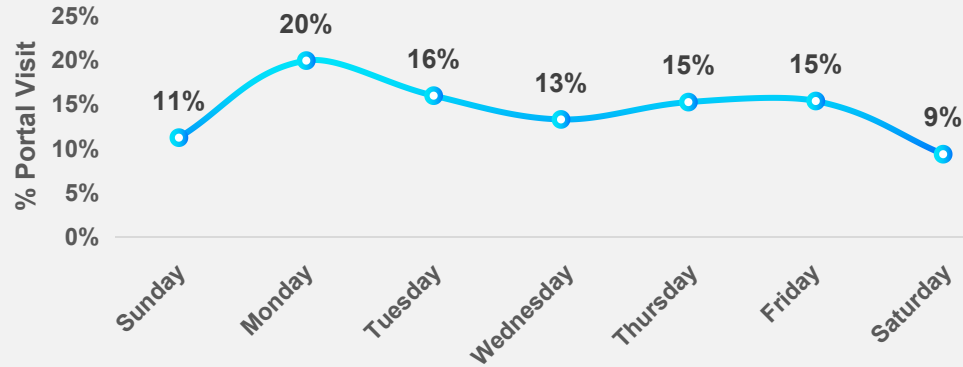
1. When analyzing the daily trends, we notice that a cumulative 70% of payments are made between Tuesdays and Fridays, with Fridays accounting for the highest proportion at 23% of payment entries.
2. According to the time-wise trend analysis, we are receiving 52% of payment entries between 2 PM and 4 PM.
3. As per the Payment Log dataset, we've managed to receive just 13.3% of the payments successfully.

#Note:

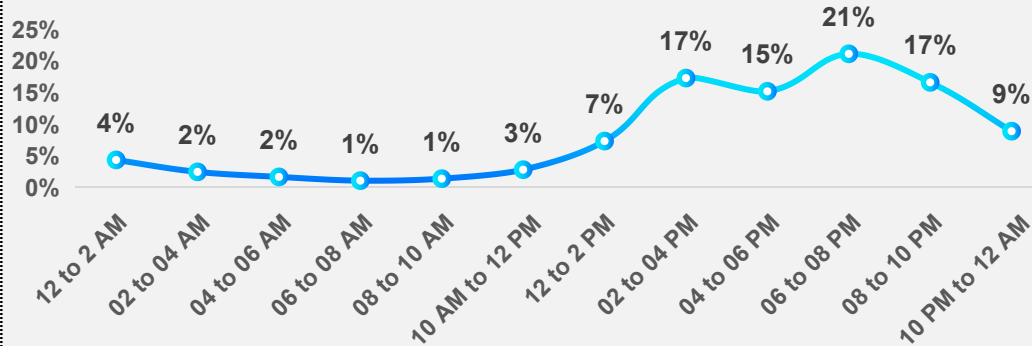
1. These charts depict trends specifically focused on "TRUE" payment entries.
2. Analysis is done considering IST timezone.

% Portal Visits Trend Analysis

% Portal Visit (Day Wise Trend)



% Portal Visit (Time Wise Trend)



Insights:-

1. When examining the trends by day, we note that portal visits are nearly evenly distributed, with Mondays showing the highest number of customer visits (20%).
2. Throughout Monday to Friday, a cumulative 79% of customers engage with the portal.
3. Based on the time-wise trend analysis, it's apparent that the 70% of customer visits to the portal occur between 2 PM and 10 PM.

#Note:

1. Analysis is done considering IST timezone.

Recommendations

01

→ To align with customer payment trends, our objective should be to send 90% of the SMS by Thursday, as payments are primarily made on Thursdays and Fridays.

02

→ We need to investigate the root cause behind the cancellation or failure of SMS delivery to customers, considering that only 38.1% of SMS are currently being delivered to the customers.

03

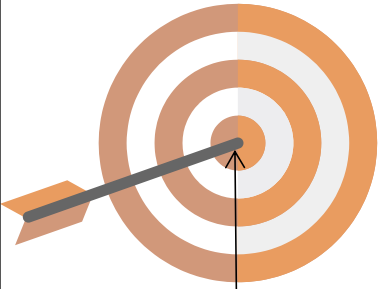
→ With 52% of customers making payments between 2 PM and 4 PM, it's essential to ensure that 90% of SMS are sent by 2 PM or at the latest by 4 PM. Additionally, guaranteeing the delivery of all SMS will likely increase the percentage of received payments.

04

→ Considering the significantly low percentage of payments received i.e. 13.3%, we must investigate the reasons behind the failure or non-receipt of payments.

05

→ Within the time frame of portal visits from 2 PM to 10 PM on weekdays, it's imperative to investigate why customers aren't completing payments despite their portal engagement.



Conclusion

01

To maximize payments, it's advisable to send SMS messages between Tuesday and Thursday, particularly from 10 AM to 4 PM. This aligns well with the fact that most payments are made on Thursday and Friday, predominantly between 2 PM and 4 PM.

02

The number of SMS sent in a week does not show any correlation with portal visits throughout the week. Customer portal visits remain evenly distributed from Monday to Friday, regardless of the days when SMS messages are sent.

03

To enhance portal visits, the optimal time to send SMS should be from 2 PM to 12 AM throughout the week, aiming to boost customer engagement on the portal.

Thank You !