



VAHAN REPORT

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Company Profile

At Vahan, we're helping 300M+ low-skilled workers in India find jobs using WhatsApp. We're a Y Combinator company that is backed by marquee investors such as Khosla Ventures and Founders Fund; several executives from Google and Flipkart are also investors in the company.

With 96% of smartphone users already using WhatsApp, there is no need for them to download anything else to use Vahan's job assistant. Now reaching over 100K job seekers per month across 1206 cities in India, the product generates millions of data points every month.

Objective :

1. Calculate efficiency and effectiveness of tele-calling operations
2. Things to recommend to the efficiency and effectiveness of tele-calling operations
3. Some other ways in which the dataset can be utilize to add value to Business, Operations or Product

STEPS INVOLVED

Majorly this project involves 3 steps which are very interconnected and are iterative steps.

1. Data Understanding

Data comprises of 3 files : leads, lead_calls and telecallers.

leads contain around ~10k records for each lead obtained from different sources in different states.

lead_calls is the logs of calls and status of the calls made to different companies for each lead.

(leads and lead_calls can be mapped using id and leadId respectively)

telecallers is the calling information regarding 5 operators working at Vahan for lead calls.



2. Data Cleaning

This step constitutes the 80% of the project time as there are so many vague values as the categories and in date-time as well.

To treat all the vague values some dictionaries have to be created beforehand for each table and date-time values need to be replaced with the correct ones.

Apart from that some columns need to be removed as they have got redundant values like id(For internal storage), phone numbers and comments etc.

3. Exploratory Data Analysis

This step is divided majorly into 2 parts:

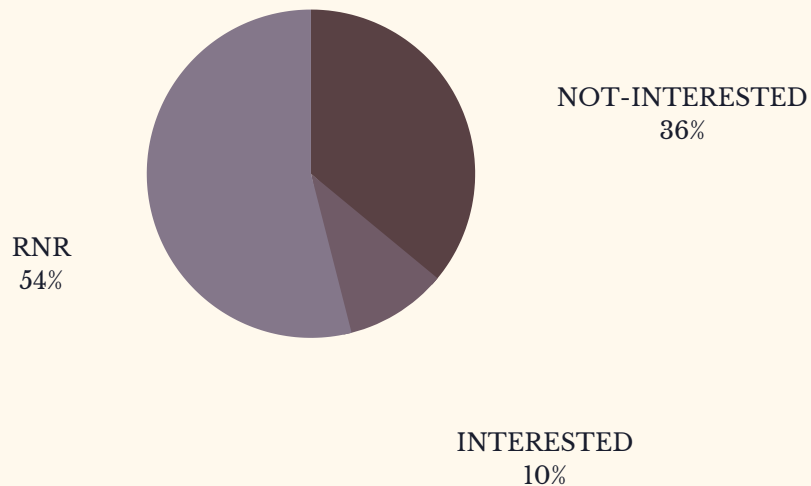
1. Univariate analysis : Distribution of each categories and date time variable is analysed in all the tables.
2. Bivariate Analysis : Pivot tables using group-by's have been created to analyse efficiency for each category.

EFFICIENCY AND EFFECTIVENESS

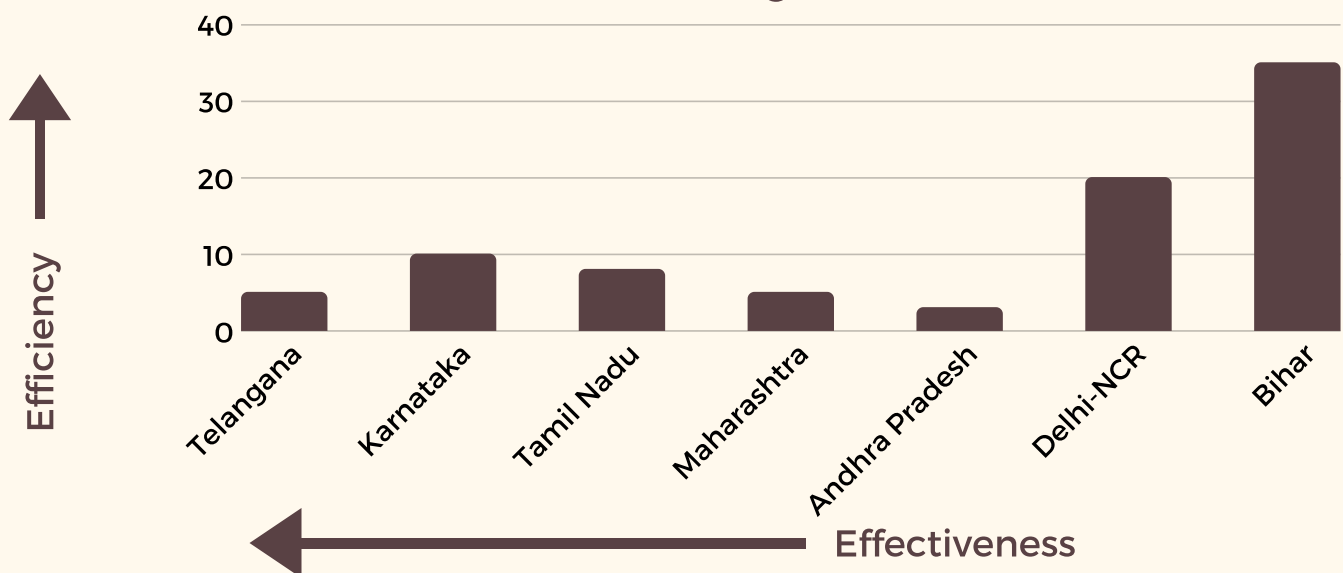
Comprehensive

Overall Efficiency is the proportion of Interested people from the overall leads received which would be $1000/9916 \times 100 = \sim 10\%$

Also, high proportion of RNR reduces the effectiveness of the overall efficiency. The RNR should be less.



State-wise Efficiency & Effectiveness

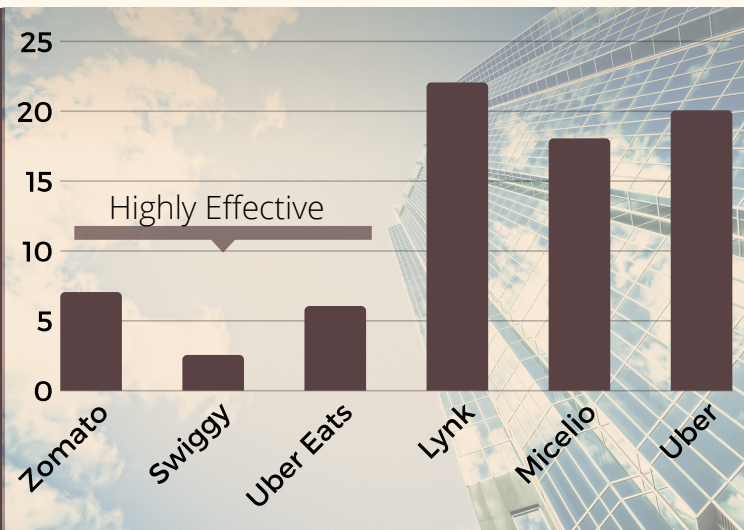


From above bar-plot, it is clearly evident that the tele-calling operations are very effective in southern states such as Karnataka, Tamil Nadu, Telangana, Maharashtra as they are providing high number of leads and ~10k callings have made in the time period BUT Delhi-NCR, Bihar also sees high conversion rate therefore are highly efficient.

RECOMMENDATIONS TO THE EFFECTIVENESS & EFFICIENCY

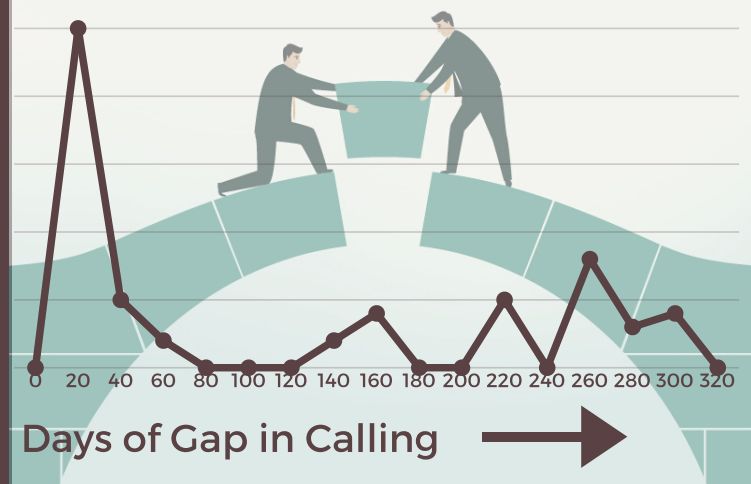
Edging Up On Efficient Clients

Although food delivery companies are highly effective but companies like Lynk, Micelio, Uber gives high efficiency but are less approached to. More calls can be made to these companies.



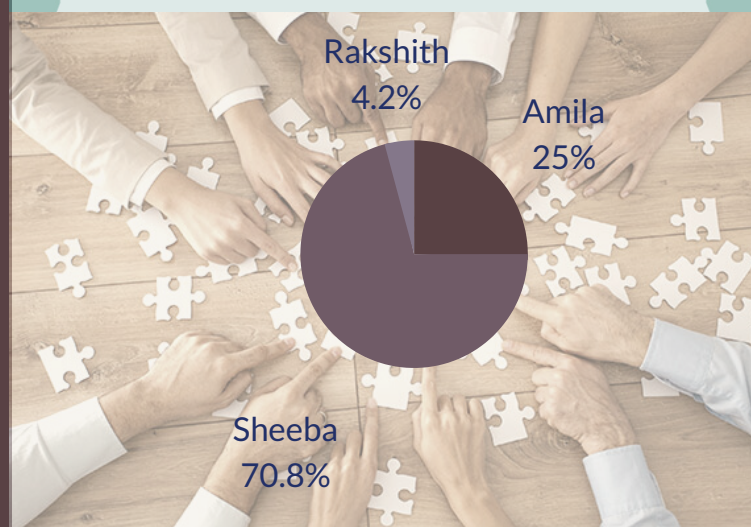
Mind the Gap

The spikes after 200 days indicates that there is a huge gap of days from leads received to leads called. This should be reduced.



Increase Callers Engagement & Productivity

Only 3/5 callers are involved in calling. And even then there is a huge gap in the number of calls made by them. This effect overall efficiency. So needful measures should be taken for this.



SOME WAYS TO UTILIZE THE DATASET

PREDICT ATTRITION

We can utilize this dataset to predict the attrition rate and the factors for attrition for any employer. This helps companies to retain any employee who is about to attrite and saves a lot of money in hiring and training of new employee.

REFERRAL AUTOMATION AND SOCIAL HIRING

Combining public available data and the referral data of this dataset, a network for each employee in a particular company can be build for specific job-posts and then used at the time of hiring required by the same company.

B2B+B2C WEB PRODUCT

A web application for the sources of the leads and for the leads too can be created which acts as a central repository of the candidates pool. It can be used to track all the applications during the complete hiring process and hence enhance user-engagement.

