



Skillovilla Case 2020

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Setting the stage



Convenience, as a retail concept, once meant and anywhere. You can call this the Amazon providing a product or experience within an Effect or just what modern consumers expect a reasonable walk or drive, perhaps on the way from top-tier modern brands. home from work or in a town nearby. Maybe we could pick up that carton of milk we need. Millennials generally prefer not getting in the morning, or a pint of ice cream for a car to pick something up if cost and product late night sugar fix. Or perhaps, if the needed availability is equal. True convenience, in a were not too urgent, we could order online digital landscape, means the products and and expect a delivery within a few days. services are available to come to you.

Today, Millennial and Gen-Z customers play So the definition of convenience has changed, by a different set of rules and expectations. and the expectations are that retailers must be Driven by technology and on-demand be willing to bring their product closer to this culture, younger generations of consumers and new consumers. That means fast homes have grown up with media and services that deliver at a good value. are available at the push of a button, anytime

Understanding this shift in consumer behavior led to the idea for Taclo in 2012, when the founders realized that there was a huge gap in the food ordering and delivery space. Restaurants often faced manpower problems and their delivery personnel were also not trained to deliver food in time. Taclo started as a small setup in Bangalore in 2012, with a team of six delivery personnel and covering 20 restaurants. However, the idea soon became a huge hit among customers and restaurants alike. Taclo now has operations in 500+ cities and more than 2 lakh restaurants on its platform.



Taclo

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500+
CITIES

200K
EATERIES

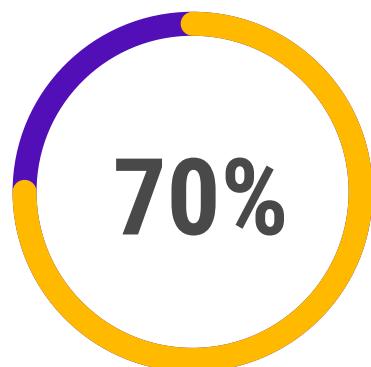
Recent Trends

Consumer appetite for food ordering is set to rise with India's online food ordering market expected to grow at a compound annual growth rate of 25-30% to touch \$7.5-\$8 billion by 2022, up from \$4 billion. Increased access to the internet and changing customer lifestyle are the major reasons behind driving this wave.

Taclo is the market leader and most loved food technology brand in India today. Two most important reason behind Taclo's explosive growth in the recent years are its obsession towards customer's needs and constant investment in technology to deliver the best user experience.

To increase presence, Taclo is also focusing on creating private brands in various cuisines. As a pilot, Taclo is planning to invest significantly towards the development of menus for these brands and building of high-tech kitchen facilities at various strategic locations in Bangalore.

Currently, 70% of the orders are placed on the platform during the peak hours of lunch and dinner. In metro cities, high traffic during these peak hours limits the serviceability of restaurants to a few kilometers. To solve this issue and further improve customer experience, Taclo now intends to explore drone enabled delivery systems for its on demand supply chain.



**Orders during
peak time**

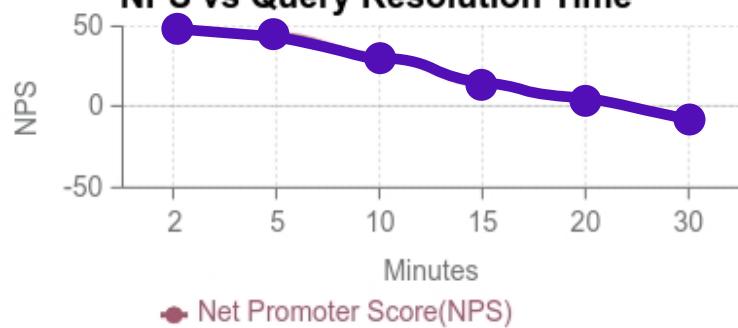
Average monthly orders



Revenue per order



NPS vs Query Resolution Time



NPS movement with Delivery Time



Your Challenge

- Design an efficient drone enabled delivery system
- Figure out whether new delivery structure will create better economies of scale over the current delivery structure.
- Design a rollout plan for the new system including the investment schedule
- Advice on whether to shift to the new delivery structure or not. Support the assertion with cost-benefit analysis.

Ground Rules

- Each team need to submit a ppt (max 10 slides) and 1 supporting document .
- If you are taking any assumptions, please provide a logical explanation of how you derived the value.
- Each team will be evaluated on three parameters:
 - **Case Quality (70%)**: The correctness of the research and data: the manner of presentation of the data: the writing style, the useful life of the case, versatility of usage: the summary of the case and abstract.
 - **Innovation (20%)**: The judges are seeking innovative materials, not necessarily presentation of the case, but new concepts and detailing of the ideas
 - **Interaction with Mentor (10%)**: mentors will allocate some marks to teams based on their interaction with them.

Current Delivery Model

1



The customer selects a restaurant on Taclo's mobile application and places an order.

2



Restaurants have their own Taclo application which receives the order. It takes 20mins on average for a restaurant to prepare a customer's order.

3



A broadcast signal is sent to all the drivers in the vicinity on driver application. Those willing to accept the order can choose to accept and deliver it. On average, the distance between the delivery boy assigned and the restaurant is 3 Kms.

4



Taclo has integrated the Google Maps API which lets the customers know where their order is and the amount of time it will take for the order to get delivered in real-time.

Drone Specifications and Costs



Autonomous flight features

Outdoor navigation systems

Flying range: 7-8km

150-300 ft flying altitude

Flight time: 30 minutes

GPS & Visual Sensing

Max carrying capacity :5Kgs

Top speed: 50kph

3 Direction Obstacle Sensing

Return to home feature

INR 130K Cost per Drone

40 Km/hr Average Speed

3 months Avg. Battery life

INR 6.5K Maintenance Cost/month

INR 13K Cost per battery

Appendix



Taclo commands one of the biggest fleet of delivery executives in India. A Taclo delivery executive earns INR 55 (inclusive of bonus) from a successful delivery on top of his fixed salary of INR 4000. A Delivery executive delivers 350 to 500 orders per month.

City wise orders

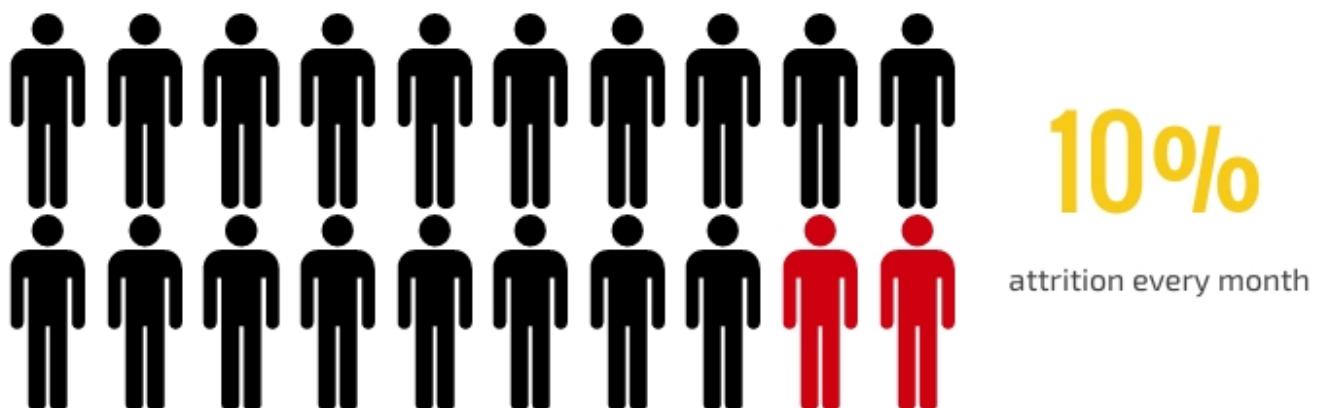
City wise orders



■ Bangalore	24%	■ Hyderabad	16%	■ Delhi NCR	12%
■ Chennai	11%	■ Mumbai	9%	■ Kolkata	8%
■ Pune	8%	■ Other Cities	12%		

The attrition rate of delivery boys is very high across the industry. As a result, Taclo replaces -10% of its delivery fleet every month.

Due to high churn rate of the Delivery executives and high traffic, the company is facing difficulties in serving orders during high demand hours. Taclo's algorithm is also designed in such a way that it automatically reduces the serviceability of a restaurant for closer distances if active orders per delivery executive increase drastically.
attrition every month



Following is the distribution of orders received by a typical restaurant as a function of customer distance from the restaurant.

KMs	<=3	4	5	6	7	8	9
Distribution	40%	35%	20%	5%	0%	0%	0%

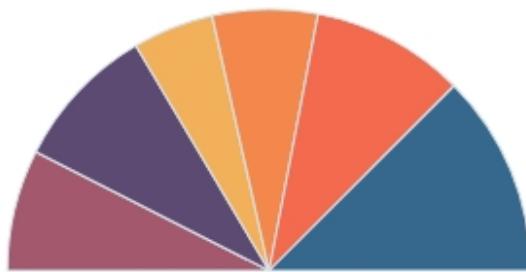
Distribution of orders in a week

Day of week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Order Distribution	12%	12%	13%	13%	14%	17%	19%

Cuisine Consumptions



Complaints



■ Missing Items	15%	■ Quality Issue	18%
■ Quantity Issue	10%	■ Wrong Delivery	13%
■ Packaging Issues	19%	■ Late Delivery	25%

