



Business Plan

Bites

Yimei Chen, Natalie Ha, Yue Lan, Guoqiang Liang, Jingjue Wang, Chuan Xu

March 29, 2018

1 The Business

Mission

Connect people with small business in the food and beverage industry.

Summary

The goal for Bites is to provide a platform where we can connect customers with small food and beverage businesses. For customers, we provide them with place to easily find reliable information about small businesses. For small businesses, we provide them an easy way to access their potential customers and analysis to make data-driven decisions. Analyses that will be provided include customer retention rate, lifetime value, and acquisition cost. Businesses will also be able to directly take action through the platform by sending out promotions to targeted customers. First, we will start with food trucks in San Francisco, and extend our product to small restaurants, cafes, and bakeries. We will also extend the platform to businesses in other cities in California, and further to other cities in the U.S.

Data Source

To provide customers with reliable information, we will mostly utilize public data provided from the government. Currently, San Francisco provides open source data about food truck permits, which contains information about the location, operating

hours, and type of cuisine. For more detailed information, we will use data scraped from online webpages. To provide businesses with information about the customers, we will collect customer information by implementing a reward system, online ordering options, and promotions.

2 Market Analysis

2.1 Targeted Users

The users of our product include both ends of the platform. The seller side consists of food truck owners, and the buyers side consist of various diners. The basic version of the product will be entirely free for both sellers and buyers, while additional features such as analytics and customer relationship management (CRM) tools or promotion campaigns will be offered at different prices to business owners. Bites' initial targeted customers are food truck businesses. Food trucks are small businesses and they mainly generate profits by making money from selling lunch in downtown areas during weekdays.

2.2 Willingness to Pay - Motivation

Food truck owners understand their targeted customers. Most of their customers are busy professionals working in the downtown area, who have limited time for lunch break but a desire to try something new or popular nearby. Therefore, food truck owners will have the hope to increase exposure to people in nearby areas to maximize the daily profits.

Even though there are services or products for restaurant CRM, there does not exist any CRM product targeted to small businesses – especially food trucks. However, we consider this as a pain point in the market. Food truck business is competitive, facing competition from nearby food trucks as well as larger businesses in the nearby areas. Utilizing data can help food trucks stand out among their competitors. Bites can provide food truck owners a service to improve customer satisfaction, acquire potential customers, and increase customer retention by tracking the traffic of their businesses.

2.3 Willingness to Pay - Estimation

Food truck owners' willingness to pay can be evaluated by their marginal benefit obtained from our platform. In the first phase, the marginal benefit will be mainly achieved through the increase in exposure from the food truck map in the platform. Even without using any other features, our initial map of the food trucks will provide benefits to businesses. In the second phase, the marginal benefits will be hugely increased by the CRM functionality of the product. By having this extra piece of information, food truck owners can proactively take actions to diversify their food offering

and roll out promotion if necessary. We also consider our product will benefit from the network effect. With more customers connected to this platform, more scalable and comprehensive insights can be derived from the data, therefore, food truck owners will be willing to pay more.

To implement our CRM product, we will adopt free trial strategy to let food truck owners experience the CRM features for free for the first month. After the free trial, we will start to charge a monthly subscription fee. To quantify the exact fee to charge, we will conduct A/B testing by observing the customer retention rate.

2.4 Market Size

According to a research conducted by Statistic Brain on August 5, 2016, the annual food truck revenue amounted to \$1.2 billion at a growth rate of 12.4% over the past five years, and is expected to continue with the growing trend in next five years.

Food Truck Industry Statistics	Data
Annual food truck revenue	\$1,200,000,000
Industry revenue increase over the past five years	12.4%
Total number of food trucks in the U.S.	4,130
Average revenue generated per food truck	\$290,556
Average spending per order at a food truck	\$12.40

Source: <https://www.statisticbrain.com/food-truck-industry-statistics/>

2.5 Marketing Strategy

On the seller side, we will identify them using the registration information from corresponding government department and collect their profile by scraping twitter and yelp website. After the premium features are established based on analysis of diners' behaviors, we will offer each food truck owner a limited-time free trial and charge a subscription fee for continued use after the trial.

On the buyer side, we will reach out to frequent food truck diners identified from active food truck followers on twitter and yelp and advertise our product. We will also award our seed users with promotions to encourage them to share the experience using our product.

2.6 Competition Dynamics

Currently, there are similar apps such as Ritual targets at Food and Beverage business. The app offers online ordering, in-person pick-up and CRM functionality to business owners. However, our product features will differentiate ourselves from the existed apps in the following ways:

1. On business owner side, we will firstly focus on food track owners. Their needs and concerns are exposure to the area and customer loyalty development. So far, the existed apps can not cover their pain points, but our product can emphasize the updated information about their location
2. On customer side, we will focus on professionals who work in the downtown area. Because we narrowed down our targeted market to this niche area, we can tailor make solutions to the business problems in this particular market. This is the weakness of apps that provide generalized service to the whole city.

To sum up, we will face competition to some degree when we enter the market but we aim to position ourselves with distinguished product features and niche market so that we can split some market shares upon entrance.

3 Organization and Management Team

Our team is comprised of six highly motivated individuals coming from different backgrounds. Based on past experiences and expertise, we have assigned a role to each individual.

Product Manager: Natalie Ha

Natalie will oversee the whole project throughout the development phase. She is responsible for setting schedules, tracking progress and resolve disputes among team members when necessary. On the product side, she will also keep track of the market and brainstorm any feasible new features.

Data Scientist: Jingjue Wang

Liz is going to design the user interface of HTML web pages and take care of all the necessary JavaScript and CSS to make sure the features work well on the front end and meet product manager's requirement.

Front-end Engineer: Liz Chen

Liz is going to design the user interface of HTML web pages and take care of all the necessary JavaScript and CSS to make sure the features work well on the front end and meet product manager's requirement.

Data Engineer: Chuan Xu

Chuan has the responsibility of setting up the pipeline of data scraping, data cleaning and transformation. The resulting data files will be stored in a well-designed PostgreSQL database.

Back-end Engineer: Guoqiang Liang

Guoqiang should build and maintain the website server. He needs to work closely with both the Data Engineer and the Front-end Engineer to make sure the appropriate data is fetched and passed onto the interface.

Development Operations: Yue Lan

Yue will create development, staging and production environment used for the web application. She also needs to write some unit tests and deploy the code into production when it's ready.

4 Projection Plan

This project will result in developing a food truck map website that can support our clients to manage their customers in a data-driven method. Bites believes that this project will help food truck lovers explore more food trucks, and facilitate food truck business owners improve customer satisfaction, grow customer retention, and make better decisions with data. The product manager, Natalie, has the overall authority and responsibility for managing and executing this project plan. The project team will consist of people from data scientist, front-end engineer, back-end engineer, data engineer, and development operation. The project manager is responsible for communicating with all the people on the progress and performance of each project resource.

The project plan includes the planning, design, development, and testing. The chart below lists the weekly plans from week 1 to week 7. If there are any delays which may impact product delivery dates, the project manager must be notified immediately so an alternative plan may be taken to mitigate the delay. Any changes in the plans will be communicated to the team by the project manager.

Week	Ojectives	Description
Week1	<ul style="list-style-type: none"> - Decide the business idea of the product. - Build teams. 	An overall idea of the product must be determined by brainstorming ideas. Teams are created and responsibilities are outlined.
Week2	<ul style="list-style-type: none"> - Finish the business plan. 	This business plan should elaborate product description, motivation, market analysis, team organization, project plan, and contract.
Week3	<ul style="list-style-type: none"> - Finish data collection. - Finish creating database - Set up development environment. - Finish data cleaning. - Start web design. 	Cleaning the public data related to food trucks in DataSF. Scraping data from Twitter, Yelp, food truck websites, and etc. Building our database in AWS. Loading the data into the database.
Week4	<ul style="list-style-type: none"> - Finish a baseline food truck map. 	The map can be interactive. And by entering the target location, the food truck logs can be displayed on their locations.

Week5 - Finish adding distance feature.	The user can know how far the food truck is by walking after clicking the food truck logo.
Week6 - Finish adding information from Yelp.	The information from Yelp can be customer reviews, customer ratings, and etc.
Week7 - Finish adding menu information.	The menu data extracted from food trucks' websites can be accessed in a user-friendly way.

5 Contract

5.1 Conflict Resolution Process

As working as a team, we may encounter many conflicts within the team about various topics. The first conflict we anticipate is the technical aspects, such as writing code and implementing various features in our platform. To avoid this conflict, we will all try to follow the PEP8 standards for our code. Moreover, the person who writes the code will test their code before submitting it. Another possible conflict that may arise are time conflicts. There may be conflicting schedules for team meetings or meeting deadlines. We will re-arrange meetings to Thursday lunch or Friday afternoon if there are conflicting schedules to our weekly meeting on Thursday afternoon. The new meeting time will be announced at least 1 day before the meeting. All team members will leave Thursday lunch time open to avoid missing weekly team meetings.

5.2 Work Schedule

We estimate that each team member will spend about 8-10 hours a week on this project. We will have weekly meeting on Thursdays after class to discuss and distribute work and check work against the plan we put together. We will work together on weekly meetings and work individually at home or school to do their assigned parts.

5.3 Equal Work Process

To ensure equal work process, we will create a spreadsheet to record the effort and time spent working on the project. We will check and update the spreadsheet during weekly meetings to make sure no one is slacking.