ACARA Challenge

Team A
Cornell-Somaiya
The Prosperity Cart
Executive Summary

In recent years an issue of hygiene and proper food handling has been in forefront for the street vending as this is highly unregulated sector and has no health and hygiene standards to uphold. Our venture addresses the hygiene problem and food handling by the street food vendors.

We will provide state of the art carts to the vendors in order to minimize the exposure of the food to dust and germs. The value proposition to the vendor is an increased customer base and lower costs of operation. The carts are made of durable, long-lasting materials that will improve overall efficiency of the vendors

Beyond Mumbai, it’s been found in many cities across the world that the equivalent of millions of US dollars exchange hands each day as a result of street vendor food. As such, this sector has an immense impact on the agricultural production and plays an important role in the food security chain.

The concept of food security also relates to food cleanliness. According to the 1996 World Food Summit of United Nations, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life." In recent years, street vending has come under fire for the "safe" part of the food security definition: that is to say, issues of hygiene and cleanliness in food preparation. This issue is only exacerbated by the fact that health and hygiene standards for food preparation are already largely unregulated. Therefore, this business venture intends to target food safety and reduce potential health hazards posed unto customers

The management for this venture will be spearheaded by four MBA graduates, who have work experience across various fields ranging from IT, telecom and FMCG marketing.

The target customer is the medium sized street food vendor in Mumbai who on an average makes around Rs. 40,000 to Rs. 50,000 as monthly profit. The main competitors are other local cart makers who can replicate the cart design and sell it to other vendors.

The financial analysis encompasses the best and the worst case scenario after which we can safely say that the business, will break-even within the first year of operation.

In addition to partnering with the local cart manufacturers, we will hire 4-6 sales people since we intend to cover as much market as possible in a short period of time.

Industry Overview

Street foods are significant in socio-economic, nutritional and cultural aspects in India. Street foods have been defined as “ready-to-eat foods and beverages prepared and/or sold by vendors and hawkers especially in the street and other similar public places.” Street vendors are part of an informal sector in India, and they are clustered at the various nodes in the city where people congregate and work: for example, near hospitals, schools, bus and railway stations. Street foods are inexpensive when compared to foods in the formal sector and often less expensive and more

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1 See footnote 1.
2 The U.N. quote will have to be cited. It’s on page 4 of the Acara Challenge, but is from “Report of the World Food Summit 1996.”
convenient then preparing home-cooked food. Besides providing food to the middle- and high-income population, this informal sector provides food and employment to the low-income population.

The street vendor community is ubiquitous in India and the consumption of street food is a daily occurrence for many people. A wide variety of standard and locally specific foods are found across the streets of India.

With an array of food products to choose from, foods representative of each and every community can be found on the streets in India. Vada Pav, Dabeli, Dosa and Sandwich in multiple variations have been satiating taste buds for years. Street vendors can be classified by size (as small, medium and large) as well as by the food products they sell. Small vendors have mobile stalls and don’t have a fixed place for business. A medium stall is generally fixed to the owned or rented location with general dimensions of 5’x5’x4’. The large vendors have wide spaces which can seat 10 to 15 people at a time along with the stall area. These are fixed stall places and are mostly family run.

Over time the face of the vendor community has undergone a radical change. Nowadays, customer relationships are valued. Most of the large and medium stalls have found a niche and established a loyal customer base. Vendors now provide more variation in their offerings, and issues such as price, differentiation, food nutritional value and cleanliness now provide the basis for competition. Along with customer psychographics and demographics legal measures have also changed. Issuing of licence to street vendors is a more robust and strict process now. Most vendors have temporary permission from the municipal authorities to conduct business in a given territory. Those large stalls which have been there for decades had secured licence then and continue to renew them for a fixed fee. Large stalls (many which are decades old), have secured licenses which are continuously renewed at fixed fees.

However, there is no health association which keeps a tab on the nutrition aspects of the food being served by the street vendors. Understanding that the vendors’ community is diverse and highly unorganised, compulsion to adhere to health standards is a very difficult task. As a result, word of mouth is the way of promoting a particular vendor.

Street vendors form a very important component of the urban informal sector in India. According to a study conducted during 1999-2000, by the National Association of Street Vendors of India (NASVI), Mumbai has the largest number of street vendors numbering around 250,000. Kolkata has more than 150,000 street vendors. Ahmedabad and Patna have around 80,000 each and Indore, Bangalore and Bhuvaneshwar have around 30,000 street vendors.

**Problem Statement**

**Need Gap Analysis**

Based on the Market survey in the form of questionnaires and personal interviews with both the vendor community and the customers certain insights were obtained. The questionnaires are attached in the appendix for reference. Questions were framed to understand the key drivers for vendor selection from the customers. The street vendor’s questionnaire focused on the daily routine, business details and the difficulties faced on the daily basis. The Mumbai region which has a substantial number of street vendors was the sample territory.

Customer Survey:
<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Parameter</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hygiene</td>
<td>Decisive Factor</td>
</tr>
<tr>
<td>2</td>
<td>Freshness</td>
<td>Important Factor</td>
</tr>
<tr>
<td>3</td>
<td>Availability</td>
<td>Willingness to travel 5 – 10 mins</td>
</tr>
<tr>
<td>4</td>
<td>Loyalty</td>
<td>Generally fixed places for eating</td>
</tr>
<tr>
<td>5</td>
<td>Price</td>
<td>Not a key deciding factor but is important. Willingness to pay extra for value add</td>
</tr>
<tr>
<td>6</td>
<td>Location Selection</td>
<td>WOM</td>
</tr>
</tbody>
</table>

1. Hygiene is important and consumers are health conscious
2. Freshness and taste are vital for customers
3. Word of mouth promotion is a crowd puller
4. Price is a factor, but consumers are willing to pay additional for product value add

The above conclusions are based on the questionnaires filled by customers and customer personal interviews & their subsequent analysis. A ranking scale had been used to determine the rank of the key decision making parameters.

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Parameter</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hygiene</td>
<td>Poor Hygiene, no proper disposal</td>
</tr>
<tr>
<td>2</td>
<td>Freshness</td>
<td>Adequate standards maintained</td>
</tr>
<tr>
<td>3</td>
<td>Availability</td>
<td>Most shops are clusters and in the vicinity of TG</td>
</tr>
<tr>
<td>4</td>
<td>Loyalty</td>
<td>Have a loyal base of customers</td>
</tr>
<tr>
<td>5</td>
<td>Price</td>
<td>Wrong thinking that customers are price sensitive</td>
</tr>
<tr>
<td>6</td>
<td>Location Selection</td>
<td>Trust the existing base to spread the word &amp; bring in new customers. Hence, close to the existing shop or in the same area.</td>
</tr>
</tbody>
</table>

The majority of vendors surveyed were medium & large. Based on their response and our understanding crucial gaps were found which can be addressed. The vendors give very high weight age to a false assumption that customers are extremely price sensitive and hygiene and freshness are secondary factors. The vendors are aware of the fact that taste is important for the customer. However, the customers are conscious about the hygiene and freshness as well as taste. A better understanding of the latent drivers among the customer will help the vendors address it and have an increasing data base of the customers which will translate to higher revenue.

The proposed modular cart will enable the medium sized vendors maintain a systematic routine for hygiene maintenance as well as address the other factors of the finding like freshness, nutrition as well as disposal. Large vendors have a single large unit made as per the dimensions of their space whereas small vendors have a temporary arrangement for conducting business. Medium vendors
have a decent purchasing power and their stalls are limited in size due to space constrains. Optimum utilization of the available space becomes very important for them.

**Value Proposition**
The modular cart is intended for medium size vendors and seeks to provide ease in movement, greater sales for the vendor along with hygiene and nutritious food for the end customer. We will be acting like consultants who design and market the cart. Since cleanliness & hygiene are important to the customer, vendors that change their practices will be at the forefront of the new trend in serving street foods and will capture larger numbers of customers. The freshness of the food depends on the storage facility available to the vendor. The ability to serve instantly on the spot enhances the taste. Efficient ergonomics of the place will allow for higher productivity and proper disposal of waste will help maintain proper hygiene. It is a well know fact that most disease in the sub continent spread through water considering the hot and humid climate. Customers generally prefer to carry their own water or purchase mineral water. A basic filtration unit visible to the customer will provide assurance of complete hygiene. The modular design of the cart will enable optimum utilization of the space while creating positive image of the vendor.

Further, daily cart cleaning services will be included with the cart. The services will be modelled according to the SC Johnson model. Every morning, cleaning crew will service the carts and prepare them for the day. The price of the cleaning services is included in the price of the cart. Also, this service will help preserve the brand and ensure each cart is clean and will offer hygienic food for the day.

**The Product**
After researching the various cart designs available in the market, the design suggested for the cart is the modular one. It has separate sections which are foldable. Also, there are fixtures and space available for the stove, wash basin and waste disposal. The modular cart is portable and also provides the vendor with manoeuvrability.

Since different vendors sell different types of foods, one size cart does not fit all the vendors’ needs. Different vendors require different amenities and this is addressed by making the cart customizable and mixing and matching components becomes possible. It helps the vendor to address all his needs without paying for something that he doesn’t want.

Also it is possible for existing vendors who already own a cart to consider specific modules to be added onto their carts as their business grows. The vendor need not discard the old cart so as to purchase a new bigger one. Special add-on’s can be purchased and attached to the existing cart. The unique modular design will help the vendor serve the customers better and meet their latent needs. At the same time, any vendor using the modular cart will be perceived to be hygiene & cleanliness conscious and at the same time serve tasty food.

The modular design of the cart will enable optimum utilization of the space while creating positive image of the vendor.

**Key Features**

*Water Filtration*
This unit will be offered as a part of the standard cart in order to ensure pure water is available for the consumption and cooking. Possible partnership with a big brand name as “TATA” would establish a high quality brand image for our product.

*Fuel Efficient Stove*
Depending on the vendor’s needs, they can opt out to purchase a counter top that contains fuel efficient stove. Vendors have expressed that one of their biggest expenses is kerosene and the efficient stove will save on average 30% of their kerosene usage, lowering their expenses and increasing their profit margin.

*Counter/Storage Space*
Depending on vendor’s needs, they can choose from solid surface counters (to be used as preparation surfaces) or counters that already have cut-in compartments for fruit and vegetable storage (similar to the condiments station, where each compartment has a cover, limiting the exposure of fresh ingredients to the outside factors). Exploring the possibility of using microbial counter surfaces to limit the possibility of contamination of food during the preparation stage.

*Purell Sanitation Station*
The sanitation station will be offered as a part of the standard cart. The station will be behind the cart and used only by the vendor. The visibility of the station is crucial to establish the trust and the image with the customer, that vendor sanitizes his/her hands before handling the food.

**Additional Features**

*Solar Panels*
Solar Panels will be part of the second phase. Solar panels will be used to power the lights and refrigeration unit. As cost might be prohibitive, our company will partner with a local solar mini-farm or own a mini-solar farm so that vendors can charge their batteries at our company’s location.
Refrigerator
The solar refrigeration unit will be a part of the additional modular components and the batteries can be powered at our company’s location.

Services
Waste Disposal/Compactor
Since the individual trash compactors are cost prohibitive, as an additional service our company offers trash composting.

Cart Cleaning
The vendors indicated in the survey that they spend the most of their time cleaning the cart. In order to alleviate this burden as well as protect the brand, daily cart cleaning services will be included with the cart. The services will be modelled according to the SC Johnson model. Every morning, cleaning crew will service the carts and prepare them for the day. The price of the cleaning services is included in the price of the cart. This service will help preserve the brand and ensure each cart is clean and will offer hygienic food for the day.

Market Description

Market size estimation
Our primary target will be medium size vendors due to the following reasons:

i. Our cart provides many value added features which requires a capital investment. Only medium size and large size vendors can fulfil such a capital requirement.

ii. Our promise is to increase street vendors’ income by appealing a great customer’s base which is caring about hygienic practices. Yet, Hygiene is an increasing concern especially for medium level economic class, which has been found to be the typical customers’ base of medium size vendors. Thus, medium-size vendors are the one who will need the most to comply with their customer’s new requirements and will have the opportunity to win more customers if they make the difference through high hygiene standards.

iii. In the first phase of our business we will focus on medium size vendors as the capital requirement is low and learning from this stage can be carried forward when we diversify into large size vendors.

We do not have any concrete data from secondary research about our market size, i.e., the number of medium size vendors in Mumbai. Thus we conducted a primary research on the number of medium size street vendors in Ghatkopar East and then extrapolated the findings for the rest of Mumbai. Below are the findings.

<table>
<thead>
<tr>
<th>No. of Street vendors</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of Ghatkopar (sq.km)</td>
<td>6.91</td>
</tr>
<tr>
<td>Area of Mumbai (sq.km)</td>
<td>603.4</td>
</tr>
<tr>
<td>Estimated no. of medium size street vendors in Mumbai (Extrapolated)</td>
<td>3056</td>
</tr>
</tbody>
</table>
Alternative Market Sizing Methodology
According to one study, there are approximately 10 million street vendors in India, and 6 million of these sell food. We assume that medium and large vendors comprise the top 20% of street food vendors. We assume the top 5% are large vendors, and the remaining 15% is our target market segment, medium-sized vendors. Under these assumptions there are roughly 900,000 medium-sized street food vendors in India. With the city of Mumbai’s population of 12.5 million people we use its relative population to the total population of India to estimate that there are approximately 11,250 medium-sized street vendors in Mumbai. Since on average street vendors’ purchase a new cart every 10 years, if 11,250 is evenly distributed over a 10 year time period, the yearly market size is 1,125 vendors.

Competitor Analysis
Manufacturing of carts in unorganized sector acts as a direct competition. Second hand carts can also be used extensively. So we can say it’s a low Entry and medium Exit Barrier. With respect to new entrants we have medium entry barrier. Licensing our design will prevent imitation.

The Business Model
Revenue Stream
We have identified two sources of revenue first as direct sales to vendors and second as advertisements on the carts.

Direct Sales:
1. Sale of carts to medium vendors
2. Sale of Modules specific to requirement
3. Charged service for modules or replacing old with new.
4. Sale of upgrades

In year three we plan to expand our market share by offering a leasing/lending model as well. This would include centralized storage of carts, charging stations and fuel sales as well as regular maintenance. Leasing could be short-term (hourly, daily) or longer term (weekly, monthly).

Advertisements on Carts: We will be sharing revenue from advertisements with vendors on percentage basis.

Marketing Strategy
Customer Segmentation
We will be catering to the Medium Sized vendor. A medium sized vendor is identified by the size of the cart with the general dimensions of 5*5*4 feet. These are the vendors who have fixed place on the streets selling Dabeli, Sandwich and Vada Pav.

Channels of distribution
We will start with awareness, evaluation through prototyping and training methods. For direct sales we will have dedicated sales force consisting of interns and a representative among us. We will be delivering carts through our own transport.
A three stage approach will be followed:

- First we will raise awareness among our target market, through behavioural prototype. Carts will be incorporated into our sales pitch to vendors by bringing them to the marketplace for trial by vendors and sales staff will educate vendors on the various components. At the same time sales staff
can reach out to street food consumers, educating them on benefits of these carts thus driving demand on the consumer side as well.
- Then, we will be giving vendors a cart for a trial period to examine and evaluate their requirements.
- Once they have provided feedback from their trial we will be going forward with sales pitch by guiding them on benefits they will be getting through our cart over others.
For direct sales we will be having dedicated sales force consisting of interns and a representative among us. We will be delivering carts through our own transport on payment of additional fee depending upon the distance of service.

Promotions

Customer Relationships
Customer relationships are established and maintained with each customer segments. The key accounts are going to be the vendor community. Cordial relationship will be established by educating them and helping them understand how the modular carts will provide additional revenue. We will be providing personal assistance as well will have community support for word of mouth publicity.

A 3-tier relationship will be established for existing vendors.
  1. Pre Sales – We will establish relationship by Community Support and emphasizing on financial objectives which they can achieve.
  2. On Purchase – Our direct Sales team will interact and guide them along on usage of carts and about benefits that cart offers.
  3. Post Sales – We will be providing service/maintenance or replacement of modules for a fee. We will refurbish old parts for resale at a discount.

For new entrants in the market our focus strategy for relationship building will be creating awareness among them about benefits achieved by old vendors on usage of our carts. We will advertise in public areas.

A database for both types of customers will be maintained for future.

Behavioural Prototype
The behavioural prototype will be tested with the vendors and depending upon their suggestions, the cart will be modified to suite their individual requirements.

Pricing
We will set our medium size cart at 21000Rs including all modules. We will be selling modules at different price.

For example: The module for waste disposal will cost 3000Rs.
Social and Environmental Impact
The vendor can keep his food free from dust, bacteria and mosquitoes which spread various diseases and cause a substantial number of deaths each year in India. The maximum fatalities caused due to these diseases take place among the lower income group since they are a major consumer of this inexpensive street food. So this business model in the long run will also bring down the spread of the diseases among the lower strata of the society.

Potential for Growth
The venture is aimed at building a brand rather than just a product and establishing an image of hygienic and sanitary food. In order to preserve the standards and the safe food handling practices, in the second year of operations we will introduce a sanitation/food testing program. By the second year the large customer base will be established and it will make introduction of safe food handling practices viable. The program will increase vendor awareness of the techniques for proper food handling. Each cart will be graded for proven safe food handling techniques, cleanliness and a demonstrated concern for the health and safety of consumers. The letter grades will need to be prominently displayed on the cart for the customer awareness. The possible issues of enforcement may arise but also open an opportunity for the potential partnership with the local government. The venture will perform inspections and testing which will culminate in the licensing of the street food vendor. Retention of the license should be dependent on the safe food handling practices and the participation in education and training sessions at regular intervals.

In terms of strict sales growth, we will first penetrate the market in Mumbai in year one. In year two we will expand into another city with high potential for growth such as New Delhi. In year three we will roll out leasing/lending models in these two cities as well as continue our expansion to include two additional cities. In future years we will continue to expand to more cities and implement strategies to capture more share in cities where we already have a presence.

Key Resources

Cornell Team Composition

Aleksandra Janjic
- Master of Public Administration with focus on Economic and Fiscal Policy (MPA ’12).
- Experience in Design and Urban Planning.

Claudia Mei
- B.S. in Design Environmental Analysis with focus on Ergonomics and Human Factors (B.S. ’11)
- Experience in design and planning.

Anne Robine
- Master of Business Administration with focus on Social Entrepreneurship (MBA ’11).
- Experience in Social Business.

Christopher Walsh
- Master of Business Administration with focus on Strategy (MBA ’11).
- Experience in strategy and operations management.
Somaiya Team Composition

Tarun Sethi

• He is currently pursuing MBA (Finance) at SIMSR.
• He has a fulltime 2-year experience as a RF Planner (System Engineer) in Vodafone-Network Operations that gives him a strong foot in Operations domain.
• His 1 year long experience as a Member (currently Head-Project Warli) of Somaiya Social Cell enables him understand the behavior, needs & decision making methods of the BOP strata.

Rohit Katyal

• He is currently pursuing MBA (Marketing) at SIMSR.
• He has a 4 years experience across various companies like Infosys, Merrill Lynch and RBS as a software engineer.
• He has earlier taught students from the slums.
• He has also done a project for the hospitality industry and thus understands the business model, segmentation and the business strategy used by various restaurants.

Atul Mirje

• He is currently pursuing MBA (Marketing) at SIMSR.
• He has close to four years of experience in the marketing of fast moving consumer goods. His core competency will be very useful while pitching the cart to potential customers (vendors).

Saumya Sethi

• She is currently pursuing MBA (Marketing) at SIMSR.
• Saumya Sethi has a prior experience in project management in TCS and she has also worked for social activities earlier so she understands the consumer.

Central Office:

We will have our central office located near Khar railway station. Khar is centrally located with ease of connectivity to all corners of Mumbai.

Below is the address of a commercial building that rents offices. If feasible we can have our office in this building.

Cosmos Commercial Centre, Near Khar Railway Station, 3RD Road, Khar, Mumbai – 400052
A garage will be provided in the building where we can keep 3-4 carts for display.

Key Partnerships

Cart Manufacturer

We have identified two cart manufacturers located in Mumbai. There contact details are as below:

1. Hemani Industries
   17 Sitafal Wadi, Opp Khoja Kabrastan, Mount Road, Mazgaon, Mumbai – 400010
2. New Bombay Hand Carts
   159 Shroff Bhuvan, Carnac Bunder, P Dmello Rd, Masjid, Mumbai - 400003
Aluminium Sheet Provider
Aluminium Sheets can be procured from Virama Laminates Private Ltd. The company is an ISO-9001:2008 certified company. Below is the address of the company.

No. 17/40, Taloja Industrial Area, P. O. Taloja Audog, Vasahat, Panvel, Raigad
Thane, Maharashtra - 410 208, India

Water Filtration
Tata Group has recently launched the water filtration product. Partnership with Tata will be highly beneficial for the venture. Citizens are familiar with their name and brand and they trust the high quality products that come with Tata name. Displaying Tata water filtration units at our carts will position our product as a high quality.

Energy Efficient Kerosene Stoves
Servals Automation Pvt Ltd is a social enterprise in pursuit of sustainable rural energy products. One of their product offerings is energy efficient kerosene stove that on average uses 30% less kerosene than standard kerosene stove.

Servals Automations Pvt Ltd
5/1, (UPSTAIRS)
Balaji Nagar 1st Street,
Eekatuthangal
CHENNAI – 600 097

Food Testing
Partner with ‘SWACH’ Cornell/Somaiya team that offers food testing kits and services. This venture will ensure the food served by the vendors and the overall cleanliness of the cart is hygienic and up to the standards.

Cleaning Services
Partner with Johnson and Johnson to include Purell stations at each vendor’s cart.

Risks and Assumptions

The design might be easily replicated by the other manufacturers. This risk will be mitigated by applying for the patent in order to prevent design imitations.

Cost Structure, Sales Projections, Income Statement, Breakeven analysis