

Innovation and Sustainability: The Story of Indian QSR Foodbox

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Abstract

Sustainopreneurship is a neologism created by merging the words sustainability and entrepreneurship. Today as the world is moving towards the fourth industrial revolution it has now become imperative for businesses to come up with new ideas which can sustain in future. The economy also values such people who can turn our day to day concerns into business opportunities. So was the intent of Mr Satish Chamyvelumani, Founder of Foodbox: "The idea was to serve people with food from their favourite brands while on the move."

In recent years, there have been great strides in the field of food technology. One such stride was made by Satish Chamyvelumani, who is a pioneer in a complete "Indian" Quick Service Restaurant sector. The global market research organization CRISIL states that the Indian QSR is largely dominated by international players (>65%). The reason lies in their western menu which has high shelf life, is compatible with the cold storage set-up, prepared with few ingredients and goes well with quick to serve menu. The present case is about an out and out Indian player in QSR sector- Foodbox now known as Frshly. It not only defies the set pattern of international brands but also keeps itself ahead of them by opting innovation in food retail. It has made a significant entry through its speed, hygiene, packaging and above all the Indian-ness of its menu in this format, which until now is first of its kind. There is also a contrast in the target segment, where the international brands go for casual dining category; it takes care of the utility segment- the working class which requires it as a second option to home-made food in form of lunch/dinner.

It is also not an app based model which we generally find in food tech business rather it is more on the ground model. The innovation comes in the form of the dispenser which dishes out food within 90 seconds fresh and hot!

Key Words: QSR, Innovation, Automated Food Dispenser, World Class Packaging, Multiple Restaurants and Sustainability.

Foodbox is nothing short of a revolution in the food industry. Foodbox founder, Satish Chamyvelumani had a vision- he wanted good wholesome food to be made available to people on the move, at convenient locations.

"We see ourselves as facilitators for restaurant chains

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while solving an age-old problem of travelling families" – **Satish Chamyvelumani (R), CEO.**

"We have an online monitoring system that sends alerts when stocks are low and keeps a watch on when food is packed" – **Rajasekaran Mathuram (M), CTO.**

"We offer customers the comfort that airline passengers have, of choosing from the menu and getting hot meals at their seats" – **Ramesh Narayanan (L), CFO.**

1. Introduction

What seems to be a scene out of a sci-fi has come true for commuters at Chennai's Koyambedu bus stand, simply by entering few commands on the touch screen,

swiping the ATM card, the food arrives on a conveyor belt in just 90 seconds. It surprises many at the busy bus stand at Chennai. The machine contends with several eateries at the terminus and roadside food vendors to win over the customer's palate.

2. Quick Service Restaurant (QSR)

The concept of fast food culture started from North America where people have very busy and fast life style. In our country two types of format dominate the fast food market QSR and street food.

QSR as the name suggests marked not only by speed but also low cost and uniformity. It is also defined by pre-prepared and ready to serve food without too many interventions at the order time and standardized systems and processes. The branded QSRs open many outlets to make the overheads affordable. In India the fast food market is around two decades old and it started with McDonalds and has largely been dominated by international giants like Mc Donalds, KFC, Dominos and Pizza Hut. The menu popular amongst all is varieties of burger, Pizza and Chow Mein. It is interesting to note that the international QSRs are more famous for their non-veg varieties whereas the Indian QSRs like Haldiram's, Bikanerwalas and Sagar Ratnas are popular for their vegetarian menus.

India being a young and developing country has embraced urbanization of living style very fast. This young population is the main consumer of the QSR. The quick service outlets have thrived in India because of the nuclear family systems, women working and having financial independence, expanding middle class, urbanization, youth spending due to peer pressure and better logistics. All this contributing to make the market of QSR worth of 8,500 crores and with the current compounded annual growth rate of 25 % (Assocham) it is likely to touch 25,000 crores by 2020.

The above mentioned statistics reflect the growing demand of quick service restaurants and fast food chains in the country. Also to be noticed is the fact that despite economic slowdown this sector has clearly escaped the trend. Food being a basic necessity it will always be a priority.

CRISIL reports that the rise in the expense on dining out specially in tier 2 cities is also boosted by the increase usage of smart phone food apps, growth in incomes resulting in increase in disposable incomes, changing lifestyle and eating patterns, increased consumer awareness to maintain the life style status and, importantly, greater accessibility of QSR outlets.

3. Foodbox

The makers of Atchayam Foodbox, as the machine is called, claim that it is a first of its kind concept in the food and retail industry world and that it's not just a vending machine.

"This is like an ATM where you withdraw cash by yourself," says Satish Chamy Velumani, the founder and CEO. "Some people call it's a vending machine but it's a lot more than that, it's an 'intelligent restaurant'."

The problem sows the seed of the new idea. As child when Satish used to travel long distances he enjoyed the trip but worry about the food, its availability and hygiene. The problem led him to ponder about the ways he could enjoy fast and hygienic food while travelling, from trusted sources. This thought was put through extensive research to get converted into Foodbox.

Foodbox, an automated eatery point which serves everything from light tiffin to complete meal combo packs from leading restaurants. It serves simple yet important need to get quick hygienic food on the go without the risk of missing the train.

4. Facts

- Founded in May 2013, a first of its kind food-joint, by three Chennai based entrepreneurs, near Koyambedu bus depot in Chennai. It took them three years to create and develop this idea.
- Funding raised initially Rs 4 Crore.
- Restaurant Partners: Aasife Biriyan, Adyar Ananda Bhavan, Amaravathi, Karaikudi, Moti Mahal Deluxe and Mr. Chow's, A2B and Madras Coffee House.
- Employees around 20; Operational efficiency through minimal manpower required Standardized processes across stores.

- By 2015, Chamyselumani set up six more across Bengaluru, Hyderabad and Chennai.

5. The Journey

The CEO, Satish Chamy Velumani - holds masters' degrees in science (majoring in engineering) and business administration (both from the US) - worked at 3M for about eleven years, before returning to India to establish Atchayam Business Solutions. When Satish C Velumani set out with his idea, he knew technology would form the backbone of the venture and counted on his engineering background and experience as project manager at 3M to help. But that's when he discovered that the technology he sought didn't exist. The next three years were spent in developing the technology and giving concrete shape to the concept. Besides him, the core team of Atchayam's Foodbox (which was conceptualized in late 2010) comprises Ramesh Narayanan, co-founder and chief financial officer, and Rajsekar Mathuram, CTO (Chief Technology Officer). The position of CTO is justified by the fact that the whole concept revolves around the robust use of technology.

The CFO is a chartered accountant and has been running a business process outsourcing (BPO) firm in Chennai for a decade, and the CTO, who holds a masters' degree in science (majoring in computer science) and worked at Verizon (a global leader in delivering innovation in communications, information and entertainment) in India and the United States for over twelve years before joining Atchayam.

Ramesh Narayan, co-founder and CFO, Atchayam Foodbox says, "Investment was in R and D. We are still researching on the techniques. Total investment is Rs 5 crore. We are planning on multiple versions of it. It's just a beginning. Encouraged with the response from its first Food Box, Atchayam founders are now planning units at Chennai central station and the airport. The longer-term plan is to go national and so, the next time you're traveling in Chennai, you now know where to grab a bite."

Velmurugan T. is the Chief Sales & Marketing Officer, who joined in 2014. He is Post graduate diploma from IIM (A) and has been on Senior business

development positions with Lenovo, Group M, Cavin Kare and CRI pumps.

6. The Organization Structure and Design and Operational Efficiency

The organization is flat and doesn't have much of a hierarchy. It has the CFO, CTO, CSMO (Chief Sales and Marketing Officer) and Operations manager reporting to CEO along with an HR executive and an Engineer. Managers and executives in each function report into their respective chiefs.

As a CEO of this organization, Satish C. Velumani creates leaders at every single level. To achieve this, they have adopted a matrix organization where every individual with potential is given a program leadership responsibility. Regardless of the hierarchy, everyone reports in to the program manager as they work on that program. They have several programs running at the same time. So, a leader automatically becomes a follower (in another program) and vice-versa. This completely eliminates hierarchy and improves efficiency it also helps the organization to drive ahead at a much higher speed than their competitors. The small but strong team helps the organization to be focused on the future plans to expand.

7. The Location

The location of outlets and partner restaurants is a key part of the Foodbox business model. While the first was set up at the DLF IT Park, the second is at Koyambedu, Chennai's busiest bus terminal. The founders were clear in their parameters for finding strategic locations. The locations of both the joints are near to the sourcing restaurants and also have high footfall.

The company uses the "Real-Win-Worth analysis" (extensively used by companies like 3M on over 1500 projects bringing profit and success, See Exhibit-1) to determine the feasibility of location and launch.

"The customer response has been very good. It works well for us because we are increasing our sales without additional investments," says KT Srinivasa Raja, MD, Adyar Ananda Bhavan. "As the awareness about

Foodbox increases, Atchayam should be able to scale operations significantly, bringing down costs even lower in the next couple of years.”

At the Atchayam Food Box at DLF IT Park and Koyambedu omnibus stand, customers can walk in and leave with the food in less than five minutes.

To enable people to use food box at public places like bus stand or railway station, they also have an option where people can pay money to the staff at the counter, who in turn provide them with a Foodbox card that they can swipe to get the food. The entire box can hold 225 food packs at one time. Sales at Koyambedu is currently 70-80 packs per day and at DLF IT Park it's anywhere between 200 and 300.

8. The Intelligent Restaurant

The Koyambedu joint is a bright, air-conditioned nook in the not-so-salubrious environs near the bus terminus, and overlooks the grim wholesale vegetable market. Tucked into a small kiosk at the entrance of Hotel Chennai Deluxe, the 'Food Box' is a large, automated vending machine that issues set meals sourced from restaurants across the city. A hulking red-and-yellow contraption, it takes up almost a fourth of the space. Payment can be by card or cash. Barcodes match the order to the right tray inside the food box, and then begins the fun.

It's a concept wherein food is brought from a number of eateries. It cuts down the time spent waiting for an order to arrive. Moreover it is affordable. And most importantly, it keeps in mind the health of the consumers too - on board is a team of nutritionists that strives to make each meal nutritious, without compromising on the taste.

After extensive research and planning Food Box came into reality and the outcome was an intelligent food dispenser. Not only does the dispenser keep the food fresh, the meal is served piping hot like in any of the favorite restaurants. The system is also designed to never serve food that is approaching the end of its shelf life - ensuring that the food at Foodbox is always fresh.

9. Mechanism

Customers queue up like they do in front of an ATM

machine and choose their preferred restaurant along with their choice of pre-determined food combinations. And within 90 seconds, piping hot food in neat packaging slides out of the dispenser, removing human intervention in the entire food packaging and delivery process. It gives convenience to customers. The packing and delivery is also automated and it's compact and convenient. Consumers can stand in the queue to receive their order and go upstairs where they can dine.”

When a customer chooses the meal from the touch screen and pays for it, the combo number is sent to a computer that directs a robotic arm to match it with the barcode on the right food tray from cold storage. It then travels on an automated conveyor belt where a device pierces holes on the cover of the tray, after which it goes into a microwave and comes out on the same belt piping hot. On receiving an order, the combo number is sent to a computer that directs a robotic arm to pick the right box from cold storage. A conveyor belt takes it to the microwave oven and then to the dispenser. At a time it handles two orders.

The outlet has two screens that clearly explain the process of ordering in three steps. Step 1: Select the food from the menu displayed on the screen. 2: Pay the bill using any credit or debit card or by cash to the staff behind the screens, who use the food-box card and swipes it. A printed bill with an order code comes out. 3: Take the bill and watch the screen for the order number and then get the food coming out on the conveyer belt. All it takes is 90 seconds.” We did a six-month due diligence on food testing. The food still remains good for eight hours but we have programmed the machine early as we are very conscious about the quality,” says Velumani.

“My first question was – does the technology for an automated restaurant even exist,” says Satish. As it turns out it didn't and the toughest, fiddliest part of their job was putting it all together. “And now we have India's first fully automated, multi-brand, food retail-facilitator,” he says, with a dramatic sweep of his hand.

At meal times, the food items are prepared and packed by the partnering restaurants. The supply chain picks up the food and delivers it to the outlets ahead of every

meal. The meals are then stored in a climate-controlled, automated system which heats the food just before serving. It is the coolest part of the establishment. There are rows upon rows of slots, 250 of them, stacked with trays here. The dishes like curd rice are issued in a separate container as it can't be heated. The automated system allows constant replenishment of food, based on stock and demand thereby minimizing wastage. The online monitoring system sends alerts when stocks are low and keeps a watch on when the food is packed. Though the food trays come with an eight-hour expiry, it automatically stops selling any food item that is beyond six hours to ensure quality. Till the lid is opened, no can touch the food after being sent off from the restaurants. Everything is automated. The meals are packed in 100% virgin polypropylene, food-grade packaging materials at the

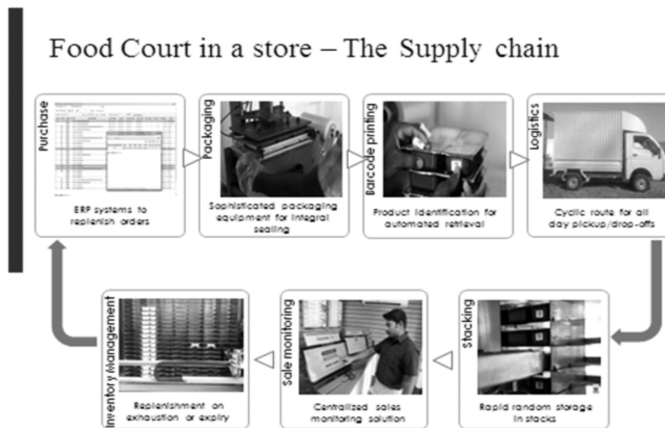
partnering restaurants.

Un-bought food goes back to the restaurants; they bear the food cost while Atchayam is responsible for transport and packaging. Other expenses include rental for the location and the cost of the machine. Its revenue: a share on every sold meal. The average ticket size of a meal is Rs 130, of which Atchayam gets Rs 40 as facilitation fee.

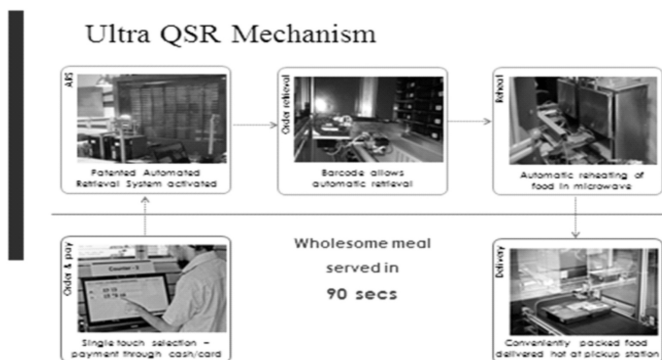
Travelers also order by phone or online, and meals are delivered to them at their seat in the bus. For the moment, however, novelty outweighs utility at the Food Box. Most customers prefer to eat at the spot.

The Foodbox was designed at Synetics Automation, Coimbatore, but the software was put together by the company's CTO, Rajasekaran Mathuram.

How This Mechanism Works:



Source: email exchange with Foodbox



Source: email exchange with Foodbox

10. Funds

Now, Atchayam is working on reducing the cost of its equipment, which will help it achieve break even faster. Currently, store break-even at the operating level takes six to 12 months, depending on location and size. While the first machine cost the firm nearly Rs 35 Lakh to set up because of the learning (technology) and subsequent corrections, it has since come down to Rs 14-15 Lakh. The aim is to lower the cost further to Rs 10 Lakh in the next year. Chamyvelumani has also applied for a patent for the technology, both in India and overseas.

Foodbox started with Rs 4 crore from funding through family and friends and a private investor in the US. Now, it is looking for its next round of funding not only pan-India through tie-up with local restaurants but also in Singapore and West Asia. That means reaching out to more cities and restaurants across border also. "We see ourselves as facilitators for restaurant chains while solving an age-old problem of travelling families," Satish Chamy Velumani says.

For expansion, the Company takes the help of venture capitalists and angel investors to raise funds.

Restaurants like the model because it increases sales without too much investment. "Their packaging technology is superior. Also, we have restrictions in terms of having outlets in places such as railway stations and bus stands. This box can be set up easily," says KT Srinivasa Raja, managing director of Adyar Ananda Bhavan. "For us, it saves the cost on establishing retail outlets. Once they reach the scale, I see a big scope for their service." Therefore, it's a win-win-win situation for partnering restaurants, customers and Foodbox.

What is exciting and revolutionary about Atchayam's Foodbox? The sustainability Factor:

- Foodbox is a retail facilitator. It feeds people local dishes on the move. Fresh and fast is the unique selling proposition (USP). Thereby, saving the most important resource, time.
- Automated Food Dispenser.
- Takeaway Friendly world class packaging assuring fresh and hygienic food made from 100% virgin food grade material.

- Multiple Restaurants at one place. Order from multiple restaurants & pick up at one point.
- It empowers and creates an ecosystem for the restaurants for a wider out-reach to its consumers and tap new markets.
- With the help of IoT (Internet of things) it makes a User-Friendly Ordering Station for better services.
- Ultra Quick Service - The food delivery mechanism is not just intelligent-it's really fast. 90 seconds is the average time taken to serve a meal!
- Easy to use.
- Indian dishes in erstwhile westernized fast food market.
- The model of this concept is sustainable not only in terms of packaging and maintaining the quality but also it provides a unique economic model which requires minimal investment and benefits its partners to get higher revenues. It gives its consumers an open transparent platform to assess the best food and compare it against their own set of parameters. Thus, giving the consumers a free choice.

11. Future Plans: The Journey of Foodbox to Frshly

The company with its plan to go international has also changed its name from FoodBox to Frshly. As the name Foodbox denotes frozen food in international market. So Frshly is the new name adopted by the founders for Foodbox.

At present there are 15 outlets of Frshly in Chennai and Bengaluru with expansion plans to move towards Delhi, Mumbai and Pune corporate and IT parks and food courts in shopping malls as possible locations to set up outlets.

The company is looking to install such automated delivery mechanism devices at airports, bus depots and railway stations and is in talks with the concerned authorities.

Atchayam has already tied up with the second largest online ticketing portal for buses in India - Ticket Goose, where customers can order food online and have it

delivered to their seats. The same comfort that an airline passenger gets, choosing from the menu and getting a hot meal at their seats. The firm is also in talks with the railways to set up its next Foodbox at Chennai Central. “We are also looking to take the machine to trade shows and exhibitions,” says Chamyyvelumani.

The company is eyeing about 500+ stores in the next 5 years. Foodbox is the best alternate for a place where a food court is not practical.

12. Conclusion

The largest band like Dominos having over 750 outlets in over 150 cities works on casual dining and delivery model. Its menu is restricted and dominated by different variety of pizzas. The second largest player Subway also has casual dining model but the ordering process is very lengthy; sandwiches made to order with 30 different options for a single sub! Faaso's which is the biggest Indian fast food player has 64 outlets across India but it only dishes out wraps and not the complete Indian meal. Travel Khana which falls in the category of travel food has an online ordering portal for food delivery by restaurants only in trains is restricted by minimum order quantity ranging from Rs. 150 to Rs. 500 depending on the restaurant/city.

Therefore, the concept of aggregation for fresh food and delivery through fully automated outlets is something that has never been done before. The customer gets his favorite restaurants' food all under one roof, for about the same price. The restaurants can reach more customers (outlets) without incurring any additional fixed cost. So this is a true gain for all (including the business).

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The model allows setting up a national or even global chain by collaborating with local vendors (in each region).

The model works on collaboration basis and being innovative, it has no competitors also. So the competition comes from other food options available at each locality. However, the choices (multiple restaurants under one roof) and convenience (best in class packaging, super fast delivery, and fully automated delivery for consistency and improved hygiene) are our biggest advantages over others.

It also gets a competitive edge over other QSR players that by the fact that the international players have found it relatively difficult to adapt Indian food into an assembly line production model. They are at ease to offer foreign cuisine which can be served quickly, and is more amenable to the cold storage format and a centralized kitchen.

13. Exhibit 1

The R-W-W (“real, win, worth it”) screen allows companies to evaluate the risks and potential of individual projects by answering questions in three broad topic areas: “Is it real?” explores the nature of the potential market and looks at the feasibility of building the product. “Can we win?” considers whether the innovation and the company can be competitive. “Is it worth doing?” examines the profit potential and whether developing the innovation makes strategic sense.

Source: “Is It Real? Can We Win? Is It Worth Doing? Managing Risk and Reward in an Innovation Portfolio” George S. Day. Harvard Business Review, December 2007.

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