



Analytical Study of Organic Eateries

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Humans have manipulated nature in every possible way for the sake of benefits. Their activities have resulted in ozone layer depletion, deforestation, drying of seasonal rivers, lands getting barren, ground water levels going down etc. Besides, the environmental point of view, in the search of earning profits, new threats have emerged for humanity in the form of adulteration in essential commodities like milk, vegetables, fruits, spices, pulses etc. There has been a paradigm shift in the methods of infrastructure creation and operation, because people have understood the importance of shifting towards more eco-friendly ways doing things. The use of fertilizers and pesticides increased the vulnerability of humanity towards threatening diseases. The vegetables and fruits now take less time to grow and the taste is not the same as it used to be earlier. It becomes imperative to go in organic way and create awareness for the same in the rural areas.

In India, there have been numerous cases of food adulteration but according to government officials, 50% of them go unnoticed. That means whatever you are eating at home may not be fresh, pure and healthy. Then how can one get assurance that dining outside will not bring him deformities and diseases caused by adulterated food items. The hotel industries may not do that knowingly but it happens unknowingly and unintentionally as the raw materials procured from the market may not be pure for sure. Thus, the organic restaurants can help to tap the energy in organic way.

Organic Restaurant, based on the use of green energy and organic farming, offers organic food to its customers, which would be cooked using ingredients, grown organically. The infrastructure and interiors of the restaurant are closely related to nature, which would give a glimpse of a virtually created natural cosmos to the customers. Also, these restaurants would have potential to be self-sufficient in terms of energy needs and waste treatment, what is called net-zero building. It is the buzz word today when we talk about energy efficiency. The trends for Organic food have begun to show, thus a need arises to shift towards the concept of Organic Restaurants so that further damage to human race can be mitigated.

This study aims to look into:

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- The current scenario of organic restaurants from international and national perspective.
- Factor on which success of Organic Restaurants depends.
- Future prospects of organic restaurants and,
- To provide suggestions for its efficient working.

A. ORGANIC RESTAURANTS - INTRODUCTION

Organic restaurant is a strategically amalgamated output of two major elements – Human Resource and Infrastructure, which makes it different from other restaurants. It is nothing but an answer to the need of a particular section of the society.

Human Resource is a very vital component of the proposed business model. It constitutes, cooks who will make the food and will make it in a way which is much healthy, waiters who is enough knowledgeable to tell the customers, particulars of a dish and the benefits of those particulars to their health. The infrastructure of the restaurant is designed in such a way that it connects to the customers, in the fast moving urban life, to the nature. Also, the restaurant is built using eco-friendly materials like bamboo interiors, organic terraces, eco-friendly wall paints etc.

The restaurant is self-sufficient, up to a great extent, in terms of energy needs and waste disposal. Following things are used during construction. Some latest technologies have been mentioned below makes the restaurants an organic initiative.

- a) Solar Water Heaters to meet the hot water requirements.
- b) Photovoltaic based solar power systems for electricity, this is an off grid primary power source.
- c) Biomass gasifier for producing electricity, as a back-up to the primary power source.
- d) Subterranean air tunnels for effective insulation so that the electricity consumption by ACs and room heaters are minimized.
- e) Insulation on terrace done with vermiculite and puff insulation topped for efficient heat reflection.
- f) Double insulation glass with heat resistive film is used in external façade with aluminum glazing.
- g) Daylight specially designed skylights, which use the light energy of the sun to laminate the inside area of the restaurant.
- h) Recycling and reusing the waste water for non-cooking activities.

B. PHYSICAL FRAMEWORK OF ORGANIC RESTAURANT

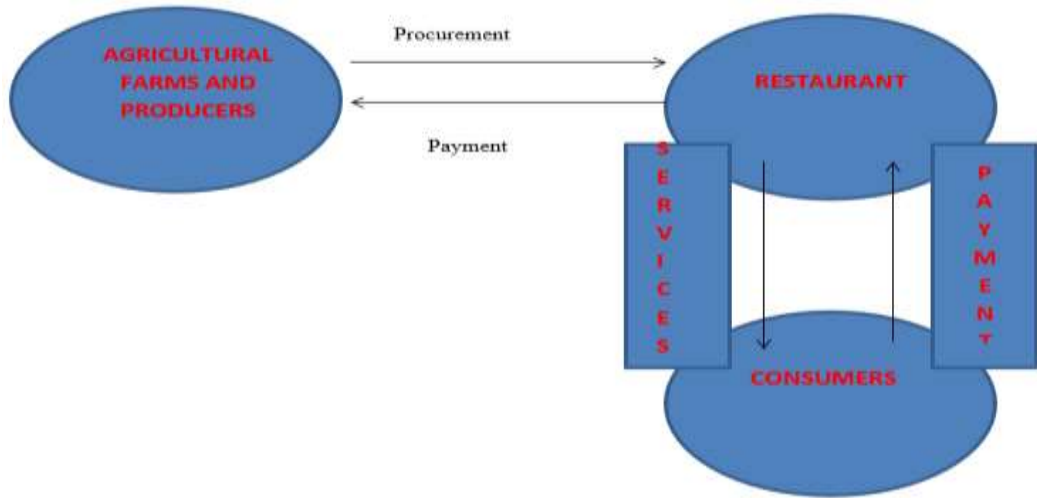


Figure 1: Typical working of organic restaurant

In the above model as shown in Figure 1, there are no middle man costs involved in the procurement of the goods, so there is a cost saving and also the target market for the restaurants is the tourists, to which they can charge comparative price for their service. This way the profits are maximized and existence of organic restaurant are justified.

This model also acts as a better integration between the rural areas where agricultural and dairy products are produced and the use of these products in the urban market. The farmers in our country are always underpaid for the crops produced by them due to the existence of the middle men in between. The end buyers pay a fair enough price to purchase the farm produce but the money is channelized through the middle men, who take their cut from that money and pass it on to the farmers, which is comparatively low to what farmers should get in return to the farm products produced by them. Therefore, a suggestive ways of integration could be -

- i) Direct purchase from the farmers.
- ii) Contract farming.

Direct Purchase

It is purchasing the agro products directly from the farmers on a contract basis, in bulk or with mutual understanding. In this method the risk of crop production

stays with the farmer and the buyer (restaurant in this case) is only responsible to the tonnage it procures from the farm.

Contract Farming

It involves leasing out the land by the farmer to the buyer of the crops and the farmer is responsible to grow the crops and he is compensated based on the revenue sharing method i.e. percentage of what the total value of crop is. In this, the risk of crop production is allocated to both buyer and farmer, according to their share in the revenue.

C. ORGANIC RESTAURANT CERTIFICATION

Organic Restaurants or green restaurants have certification norms given by Green Restaurants Association (GRA). The Green Restaurant Association certifies restaurants, it has been doing so since last two years. Green or Organic Restaurant provides a comprehensive and user-friendly way of authorizing existing restaurants and food service shops. It gives points in each of the GRA's Seven Environmental Categories for assessment and evaluation -

- i) Water Efficiency
- ii) Waste Reduction and Recycling
- iii) Sustainable Furnishings and Building Materials
- iv) Sustainable Food
- v) Energy
- vi) Disposables
- vii) Chemical and Pollution Reduction

Three Types of Certifications

- i) Restaurants
- ii) Sustainability
- iii) Events

Restaurants - Certified Green Restaurants must fulfill the following criteria:

- Accumulate a total of 100 Points for 2 stars and so on.

- Meet Minimum Points in each Category.
- Have a full-scale recycling program.
- Be Free of Polystyrene Foam (aka Styrofoam).
- Yearly Training to Personnel.
- Communication Protocol.

Break up of points are summarized in Table 1.

Table 1: Break up of Rating Points

	2 Stars	3 Stars	4 Stars
Water Efficiency	10 points	10 points	10 points
Waste Reduction & Recycling	10 points	10 points	10 points
Sustainable Furnishings and Bldg. Materials	0	0	0
Sustainable Food	10 points	10 points	10 points
Energy	10 points	10 points	10 points
Disposables	10 points	10 points	10 points
Chemical & Pollution Reduction	10 points	10 points	10 points
Points that can be received from any category	10 points	10 points	10 points
Minimum requirement	100 points	175 points	300 points

Continual Changes for improvement:

As the market changes and provides more plentiful and better environmental solutions, it is important that, over the years, restaurants continue to make improvements. So, part of Green Restaurant is that element of continual improvement, described below in Table 2. To reach certification, a restaurant must meet a minimum of 100 points.

Table 2: Summary of Sustenance Points

By	Year	1,	restaurant	-	maintain	100	points.
By	Year	2,	restaurant	-	have	110	points.
By	Year	3,	restaurant	-	have	120	points.
By	Year	4,	restaurant	-	have	130	points.
By	Year	5,	restaurant	-	have	140	points.
By	Year	6,	restaurant	-	have	150	points.
By	Year	7,	restaurant	-	have	160	points.
By	Year	8,	restaurant	-	have	170	points.
By	Year	9,	restaurant	-	have	175	points.
By	Year	10,	restaurant	-	have	180	points.

By the end of Year 11, restaurant must have 185 points. Each year thereafter, each restaurant must earn an additional five points per year.

Under the Green Restaurant standards, restaurants will have the ability to reach one of three levels of Certified Green Restaurants:



2 Star Certified Green Restaurants have a minimum of 100 points



3 Star Certified Green Restaurants have a minimum 175 points



4 Star Certified Green Restaurants are trailblazers that have tallied at least 300 points

Sustainability - Certified Green Restaurant Sustainability

This option is geared towards new builds and renovations. To receive this designation, a restaurant must meet the following criteria –

- Accumulate a total of 205 Points.
- Accumulate minimum points, per Matrix Below.
- Have a full-scale recycling program, including construction recycling.
- Be Free of Polystyrene Foam (aka Styrofoam).
- Yearly Training to Personnel.

- Communication Protocol.

Break up of points are summarized in Table 2.

Table 2: Break up of Sustainability Points

	Sustainability
Water Efficiency	30 points
Waste Reduction & Recycling	12.5 points
Sustainable Furnishings and Bldg. Materials	20 points
Sustainable Food	10 points
Energy	90 points
Disposables	10 points
Chemical & Pollution Reduction	30 points
Points that can be received from any category	2.5 points
Minimum requirement	225 points

Events

This option is for the foodservice portion of an event. To receive this designation, an event must meet the following criteria –

- Accumulate a total of 80 Points
- Accumulate minimum points in each category, per Matrix Below
- A full-scale recycling program
- Be Free of Polystyrene Foam.

Break up of points are summarized in Table 3.

Table 3: Break up of Event Points

	Level 1	Level 2
Water Efficiency	0 points	0 points
Waste Reduction & Recycling	15 points	20 points

Sustainable Furnishings and Bldg. Materials	0	0
Sustainable Food	25 points	55 points
Energy	0 points	15 points
Disposables	15 points	50 points
Chemical & Pollution Reduction	5 points	15 points
Points that can be received from any category	20 points	0 points
Minimum requirement	80 points	160 points

Recent Green Restaurants around the world

The recent list of 8 Organic Restaurants:

- i) **The Vine** in Grants Pass, Oregon, doesn't have a microwave, because everything is cooked fresh to order. Foods and wines are purchased locally. There also are vegetarian and gluten-free dishes.
- ii) **Cafe 27** in Stevens Point, Wisconsin, has a menu of "seasonal bounty produced by local farm families," according to its website it has Solar panels on the roof and greenhouse garden.
- iii) **Four Cafe** in the Eagle Rock neighborhood of Los Angeles, is featured in the L.A. Times for its healthy, organic, American contemporary and vegetarian cuisine.
- iv) **Fuel Cafe**, in Memphis, Tennessee, boasts that their meats and poultry are grass/vegetarian fed, antibiotic-free and humanely raised without use of hormones, chemicals or additives. Their seasonal seafood is always wild caught and they offer tasty vegan and vegetarian as well. They recycle waste and water.
- v) **Raw Aura** in Port Credit, Ontario, is reportedly beautiful, healthy and organic, besides being a place that serves raw food.

- vi) **Magpie Caterers and Cafe**, in Sacramento, California, follows the Monterey Bay Aquarium Seafood Watch list of sustainable fisheries when designing its menus.
- vii) **The Daily Grub**, Omaha, Nebraska, offers discounts to eaters who skip the car and ride their bikes.
- viii) **Tupelo Honey Cafe** in downtown Asheville, North Carolina, offers a fresh take on Southern cuisine. The restaurant also sells a cookbook that benefits Manna Food Bank and the Appalachian Sustainable Agriculture Project.

List of Organic Restaurants in India

- i) Green Restaurants
- ii) Sea Green Restaurant
- iii) Greens Restaurants and Bar
- iv) Green Chillyz Restaurant
- v) Green Field Restaurants
- vi) Green Park Restaurant

Factors affecting Organic restaurants

- i) Usage of Recycled Products - Restaurants create large portions of food to serve many people. With this large amount of production comes a lot of waste, and waste costs money, both in uneaten or spoiled food and trash handling fees. Along with the environmental benefits, there are several other reasons for a restaurant to engage in a recycling program.
- ii) Use of Eco Products - Eco-Products has been providing greener solutions to the market place and seeks to “close the loop” with its offering of eco-friendly product. It includes cutlery made of vegetable starch, eco-friendly bag, disposable cups made of corn-based bio-plastic and are fully disposable and sugarcane made bowl and plates.
- iii) Use of Efficient Lightning system - Efficient lighting has the potential to be one of the simplest and most cost effective ways to reduce energy consumption and save money in a foodservice establishment. Lighting accounts to 11% of a restaurant's energy bill. Use of CFLs instead of heavy voltage tube lights can also help a lot in saving energy.

- iv) Use of handmade paper - The bags are required in carrying packed food in case of delivery orders. The jute handles used with bags constructed of recycled paper to give greater carrying strength while the paper bags themselves are reinforced with board at the base. The paper used in making the bags come in different gsm and are can carry varying weights.
- v) Recycling waste water - It's common to recycle deep fryer oil, however recycling oils from kitchen wastewater has proven more elusive.
- vi) Use of Biomass - Organic Restaurants utilize the waste from the kitchen like sugarcane waste, bagasse, corn residue, etc. to generate electricity in coordination with the restaurant process.
- vii) Usage of photovoltaic System - It is used in generation of power using solar heat. It is also used in heating restaurant water in Organic Restaurants.
- viii) Use of sub- terrace - Sub- terrace is terrace with green garden around. It is used in Organic Restaurants to give environmental greenery and ambiance to customers.

D. CONCLUSIONS

Sustainability of any technology depends on how well it is implemented and how well it is accepted by the people and fellow competitors. The usage of ecofriendly technology not only helps the environment but also makes the people to behave in an ecofriendly manner. The various factors of organic restaurants make it a very special technology. With the mass implementation of various technologies and instigating awareness about the Organic Restaurants, other hindrances in the path of sustainable development of organic restaurants will also be cleared off.

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