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GROWTH AND DEVELOPMENT OF ORGANIC FOOD MARKET IN THE WORLD – WITH SPECIAL REFERENCE TO INDIAN ORGANIC FOOD MARKET

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ABSTRACT

Consumers increasingly tend to prefer food with added value such as high quality, health benefits and animal welfare. And organic farming is in tune with the expectations of this growing number of consumers who buy organic food despite the considerably higher prices. Organic method is a better method of agriculture than chemical-based agriculture because it retains the health of soil as well as environment and also producing qualitative agricultural produces. The organic food market revenues in India are expected to increase at a CAGR of around 25% during 2014-19. In terms of metro cities, the organic food sales are high in Mumbai, Chennai, Delhi, Bengaluru, Pune and Gurgaon. The increasing size of the middle income group is an important factor influencing this growth. However, high organic food prices, problems related to certifications and availability, and quality control of the products need to be resolved.

The present study analyzes the growth and development of organic food market in World and India. Parameters taken for this study are increase in organic agricultural land, organic producers, organic sales, organic exports, organic leading companies etc. After the analysis, it is recommended that the need of the hour is to launch an Organic Green Revolution – that fundamentally changes the way we grow our food to maximize yield while mitigating climate change, restoring clean water, building soils, and protecting agricultural production during

times of drought. There is also need to strengthen small farmer organizations and provide them financial and technical assistance for increasing the organic productivity and improving the quality of produce.

KeyWords: Organic Food, Organic Agricultural Land, Global Market, Indian Market, Customer's Preferences

Introduction

Organic foods are the produce from plants that have been grown without the use of synthetic fertilizers or pesticides. There is an increasing demand for organic foods in domestic as well as in international markets. With a Compound Annual Growth Rate (CAGR) of 12.8 percent through 2009-2018, the expected revenue from the global organic food market is USD 149.92 billion in 2018 (FIBL & IFOAM Organic Internationals, 2016). Europe and North America are the major global market for organic food products. The demand for organic food products is growing in these regions due to high purchasing power and huge presence of health conscious customers. As compared with western countries, the organic food consumption in India is very low. In India, organic food market is highly unorganized and fragmented, which offers immense growth opportunities for domestic as well as international players. Among the Indian states, Madhya Pradesh had the largest organic farming area of 2,866,000 hectares. The growth in consumption of organic food in India is also evident from the fact that many organic food stores are opening up in India. Currently, every supermarket has an organic food store and every large city in India has numerous organic food stores and restaurants.

The ill effects of modern chemical-intensive farming has manifested into lowering productivity, shrinking water table; pest- resistance over the last six decades; with many farming communities now shifting back to the traditional organic farming and promoting organic and health foods. Organic farming could well possibly be the panacea for all these problems. Besides the obvious immediate and positive effects organic or natural farming has on the environment and quality of food, it also helps the farmer to become self-sufficient in his requirements for agro-inputs and reduction in input costs; thus ameliorating the reduced yield from organic farming. Organic foods, being free from toxins and harmful chemicals are much tastier and palatable. Given a choice, any consumer would definitely like to eat pure, chemical free food.

Review of Literature

This section outlines the review of existing literature on organic food market at International and Indian and levels.

- Studies on Organic Food Market at International Level
- Studies on Organic Food Market at India Level

- ***Studies on Organic Food Market at International Level***

Vasilikiotis Christos (2000) mentioned in his research paper 'Can Organic Farming Feed the World?' that organic farming systems have proven that they can prevent crop loss to pests without any synthetic pesticides. Furthermore, organic and agro ecological farming methods continually increase soil fertility and prevent loss of topsoil to erosion, while conventional methods have the opposite effect. Additional research studies and reports include a large-scale and comprehensive examination of yield data from 286 farms in 57 countries. The data show that small farmers increased their crop yields by an average of 79% by using environmentally sustainable techniques including organic farming and crop rotation. (Pretty et al. 2006).

Another study of agriculture in the developing world (Badgley et al. 2007) showed that organic methods were two to three times more productive than conventional methods. The researchers concluded that organic farming can produce enough food to feed the world without increasing the agricultural land base. The study of Ndungu S. K. (2013) was aimed at evaluating consumer awareness in East Africa from 2006 to 2013. For this purpose, 698 households were selected from the 8 cities. It was revealed that the awareness of organic foods and organic farming in East Africa increased from 62% to 67% between 2006 and 2013. The awareness is highest in Uganda (83%) followed by Burundi (75%), Tanzania (63%), Kenya (55%) and Rwanda (48%). In another research study, Larue et al (2004) found that households tend to pay extra for functional food with clear health benefits, such as anti-cancer or heart-healthy properties.

- ***Studies on Organic Food Market at India Level***

Technopak Report (2012) found out the market for organic food is extremely nascent in India at present, with very few active brands and low penetration even among urban consumers. Estimated Market size of organic fruits and dairy products at present is US$ 80 million and US$ 20 million respectively in 2012. A. C. Nielsen, a leading market research firm, recently surveyed about 21,000 regular Internet users in 38 countries to find their preference for functional foods –

foods that have additional health benefits. The survey revealed that India was among the top ten countries where health food, including organic food, was demanded by the consumers, inspite of knowing, it is priced over 25 percent more than conventional food.

Chandrashekar H. M (2014) collected primary data from 100 consumers of Mysore city in order to understand the demand factors of consumers in organic products. The Findings are as follows:

- The 64 percent of the consumers purchase the organic products daily.
- The consumer opined that organic products maintain good health (58 percent), the quality of food (26 percent) and good tastes (14 percent).
- The 86 percent of the consumers are ready to purchase /consume the organic products, even the price is high only 14 percent of the consumers are not ready to consume.
- The advertisement of organic products is very low when compare to non- organic products.
- Education background of the consumers is one of the important variables which influence the purchase of the organic products.

According to Yes Bank Ltd (2012), organic foods industry currently is predominantly metro-based. At least 95% of the brands market exists in the Top 10 metros viz Delhi (NCR), Kolkata, Mumbai, Pune, Chennai, Bengaluru and the other Tier II cities – e.g. Indore, Nasik, and Nagpur etc. The increase in organic food consumption in India is evident from the fact that many organic food stores are spurring up in India.

Objectives of the Study

Following are the objectives of the study.

- to analyze the growth and development of organic food market in World and India.
- to give suitable suggestion and recommendation on the basis of the study.

Scope of the Study

The present study analyzes the growth and development of organic food market in World and India. Parameters taken for this study are increase in organic agricultural land, organic producers, organic sales, organic exports, organic leading companies etc.

Limitation of the Study

The present study has some like:

- It is restricted to only secondary data collection.

- Few parameters are taken for the purpose of this study.

Method of Data Collection

This research study is based on secondary method of data collection such as FIBL & IFOAM Organic Internationals, APEDA, YES BANK analysis and other websites. All the data and information are properly classified and arranged in tabular form for the purpose of this study.

Growth and Development of Organic Food Market in the World

The market research company Organic Monitor (FIBL & IFOAM Organic Internationals, 2016) estimates the global market for organic food in 2014 to have reached 80 billion US Dollars (more than 60 billion Euros). The United States is the leading market with 27.1 billion Euros, followed by Germany (7.9 billion Euros), France (4.8 billion Euros), and China (3.7 billion Euros).

Organic Agriculture in the World and the Top Countries

Table I: Organic Agriculture in the World and the Top Countries (2014)

Indicator	World	Top Countries
Countries with organic activities	172 countries	New countries: Kiribati; Puerto Rico; Suriname etc.
Organic agricultural land	43.7 million hectares	Australia (17.2 million hectares, 2013); Argentina (3.1 million hectares, 2013)
Organic share of the total agricultural land	0.99%	Falkland Island (Malvinas) (36.3%); Liechtenstein (30.9%);
Producers	2.3 million producers	India (6,50,000); Uganda (1,90,552); Mexico (1,69,703)
Organic market size	80 billion dollars	U.S. (35.9 billion $); Germany (10.5 billion $); France (6.8 billion $)
Per Capita Consumption	11 US dollars (14 euros)	Switzerland (221 euros); Luxemberg (164 euros); Denmark (162 euros)
No. of countries with organic regulations	87 countries (2015)	--
Number of IFOAM affiliates	784 affiliates from 117 countries (2015)	Germany 91 affiliates; China 57 affiliates; India 44 affiliates

Source: FIBL & IFOAM Organic Internationals (2016), p. 23.

Organic Agricultural Land in World and Region's Share

Table II: Organic Agricultural Land in World and Region's Share - 2014

Region	Organic Agricultural Land (hectares)	Region's Share
Africa	12,63,105	2.9%
Asia	35,67,474	8.2%
Europe	116,25,001	26.6%
Latin America	67,85,796	15.5%
North America	30,82,419	7.1%
Oceania	173,42,416	39.7%
Total	**436,62,446**	**100%**

Source: FIBL & IFOAM Organic Internationals (2016), p. 38

It is inferred from the above table that the total area under organic agricultural land in the World was 436,62,446 hectares in 2014. Out of that, Oceania countries had maximum share in the total area i.e. 39.70%, followed by share of European countries with 26.60%, Latin America's share with 15.50%, Asian countries' share with 8.20%, North America's share with 7.10% and Africa's share of 2.90% in the total area under organic agricultural land in the World.

Organic Producers in World and Region's Share

Table III: Organic Producers in World and Region's Share - 2014

Region	Organic Producers	Region's Share
Africa	0.59	26%
Asia	0.92	40%
Europe	0.35	15%
Latin America	0.40	17%
North America	0.02	1%

Oceania	0.02	1%
Total	**2.30 million**	**100%**

Source: FIBL & IFOAM Organic Internationals (2016), p. 59.

Above table exhibit that the total number of organic producers in the World was 2.30 million in 2014. Out of that, Asian countries had maximum share in the total number of producers i.e. 40%, followed by share of African countries with 26%, Latin America's share with 17%, European countries' share with 15%, North America's share with 1% and Oceana's share of 1% in the total number of organic producers in the World.

Retail Sales in Global Market

Table IV: Global Market: Distribution of Retail Sales Value by Countries (2014)

Countries	Retail Sales (million euros)	Share in %
U.S.A	27,062	43%
Germany	7,910	13%
France	4,830	8%
China	3,701	6%
Canada	2,523	4%
U.K	2,307	4%
Italy	2,145	3%
Switzerland	1,817	3%
Others	10,640	16%
Total	**62,935**	**100%**

Source: FIBL & IFOAM Organic Internationals (2016), p. 65.

Growth and Development of Organic Food in India

Growing awareness about the health benefits accruing from the consumption of organic food is driving the global market for organic food. The rising market size of organic food may be attributed to global awareness about the benefits of organic food and health consciousness among the people. With a Compound Annual Growth Rate (CAGR) of 12.8 percent through 2009-2018, the expected revenue from the global organic food market is USD 149.92 billion in

2018. Organic food sales are high in India's metro cities like Mumbai, Chennai, Delhi, Bengaluru, Pune and Gurgaon. The increasing size of the middle income group is an important factor influencing this growth.

Table V: Development of Organic Agricultural Land in India (2011 to 2014)

Years	Organic Agricultural Land (hectares)
2011	10,84,266
2012	5,00,000
2013	5,10,000
2014	7,20,000

Source: FIBL & IFOAM Organic Internationals (2016), p. 48.

It can be concluded from table V that India had total area 10,84,266 hectares under organic agricultural land in the year 2011, which decreased to 500,000 hectares in 2012. It increased in the year 2012 to 510,000 hectares and further increased to 720,000 hectares under organic agricultural land.

Table VI: India – Domestic Market - Organic Segment

Product	Sales (Tons/ Kl)	Total Size in Cr
Tea	1500	150.00
Coffee	750	45.00
Spices	500	22.50
Rice	5000	42.50
Jaggery, sugar	6000	45.00
Wheat & flour	3000	12.00
Pulses	2500	21.25
Fruits and vegetables	5000	20.00
Millets flour	2000	8.00
Oils & ghee	2000	50.00
Squashes, Jams	500	5.00
Snacks	500	2.50
Honey	2000	25.00
Others (essential seeds, etc)	5000	100.00
Total	**36250**	**548.75**

Source: APEDA, YES BANK analysis (2012), "Indian Organic Food Market" p. 20.

Table VII: Leading Organic Companies - Turnover

Turnovers (includes exports) of leading organic products companies of India such as Conscious Foods, Ecofarms, Down To Earth etc. are as follows:

Company	Turnover in Crores
Conscious Foods	120
24 letter mantra	65
Ecofarms	85
Morarka "Down To Earth"	75
Pristine Foods	15
Navdanya	25
Suminter organics	15
Fab india	20
Organic India	175
Total	**1000**

Source: APEDA, YES BANK analysis (2012), "Indian Organic Food Market" p. 21.

Organic foods industry currently is predominantly metro-based. At least 95% of the brands market exists in the Top 10 metros viz Mumbai, Delhi (NCR), Kolkata, Pune, Chennai, Bengaluru and the other Tier II cities – e.g. Indore, Nasik, and Nagpur etc.

Table VIII: Exports of organic products from India

Product Category	Export Volume (MT)	% Share
Oil Crops (except Sesame)	17966	25.73
Cotton & Textiles	17363	24.86
Processed Food	8752	12.53
Basmati Rice	5243	7.51
Tea	2928	4.19
Sesame	2409	3.45
Honey	2409	3.45
Rice	1634	2.34
Dry Fruits	1472	2.11

Cereals	1348	1.93
Spices-Condiments	1174	1.68
Medicinal & Herbal Plants/Products	627	0.9
Coffee	320	0.46
Vegetables	167	0.24
Aromatic Oil	39	0.06

Source: APEDA, YES BANK analysis (2012), "Indian Organic Food Market" p. 18.

Table IX: Major continents – India's Organic Exports

Continent	Quantity (in MT)	Value (Crores)
EU	30814	365
Canada	15061	100
USA	13392	115
Asia	8867	108
Australia	910	8.3
New Zealand	609	1.9
Africa	185	0.9
Total	**69837**	**699**

Source: APEDA, YES BANK analysis (2012), "Indian Organic Food Market" p. 19.

According to Agricultural and Processed Food Products Export Development Authority (APEDA), India exported 86 items of organic products in 2010-11 with the total volume of 69837 MT. The export realization was around USD 157.22 million registering a 33% growth over the previous year. Organic products were mainly exported to EU, US, Australia, Canada, Japan, Switzerland, South Africa and Middle East. Oil Crops (except sesame) leads among the products exported at 17966 MT.

Conclusion

Extensive dependence on chemical farming has shown its darker side, with passing time. The land is losing its fertility and is demanding larger quantities of fertilizers to be used. Pests are becoming immune, requiring the farmers to use stronger and costlier pesticides. Due to increased cost of farming, farmers are falling into the trap of money lenders, who are exploiting them no

end, and forcing many to commit suicide. Both consumers and farmers are now gradually shifting back to organic farming in India. It is believed by many that organic farming is healthier. Though the health benefits of organic food are yet to be proved, consumers are willing to pay higher premium for the same. Many farmers in India are shifting to organic farming due to the domestic and international demand for organic food. Further stringent standards for non-organic food in European and US markets have led to rejection of many Indian food consignments in the past. Organic farming, therefore, provides a better alternative to chemical farming.

Organic food sales are high in India's metro cities like Mumbai, Chennai, Delhi, Bengaluru, Pune and Gurgaon. The increasing size of the middle income group, from 14.5 million households in 2005 to 63.9 million households in 2015, is an important factor influencing this growth. The high production of organic spices is another factor responsible for India's expanding market size of organic food. It is expected that the popularity of organic food will continue to drive market size. Increasing health awareness among Indians and a rising middle income group will be important stimulants. However, high organic food prices, problems related to certifications and availability, and quality control of the products need to be resolved.

Suggestions

- Organic farming is in tune with the expectations of a growing number of consumers who buy organic food despite the considerably higher prices. Consumers increasingly tend to prefer food with added value such as high quality, health benefits and animal welfare.
- We can feed the world and must restore ecological health to our planet. To do this we need to launch an Organic Green Revolution – that fundamentally changes the way we grow our food to maximize yield while mitigating climate change, restoring clean water, building soils, and protecting agricultural production during times of drought.
- A regenerative system improves the capacity of the farming systems we are using. When properly managed with respect to local conditions, a natural, organic system will:
  - Increase global yields.
  - Improve adaptability to climate change by improving drought and flood resistance.
  - Empower the world's poorest farmers through a sustainable system that does not depend on unaffordable chemical and petroleum-based inputs.
  - Increase the carbon content of the soil, thereby improving its quality and capacity.

- Promote human health and well-being through greater access to more nutrient-dense food from a wider variety of crops.
- By contrast, chemically-based degenerative farming systems lead to declines in resource abundance and environmental quality, leaving natural systems in worse shape than they were originally by depleting soils and damaging the environment. Because regenerative organic agriculture uses local and regional resources in natural systems, even small-scale farmers can be self-sufficient – a great benefit to the farmers and their local customers seeking fresh, nutritious food.

- There is also need to strengthen small farmer organizations and provide them technical assistance to increase productivity for the cost competitive market, provide help in improving quality of produce, and to encourage them to participate more actively in the marketing of their produce in order to capture value added in the supply chain. Finally, the problem of financing the small producers needs to be tackled by finding innovative ways to provide finance.

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