



## RESEARCH ARTICLE

# Covid 19: change of perception towards food habit and assessing a new opportunity for Indigenous farmers

V. Vinuchakravarthi, S. Srinivasan

Department of Business Administration, Sri Sankara Arts and Science College, Enathur, Kanchipuram, India

Received: 15.11.2021

Accepted: 04.01.2022

## ABSTRACT

The study aims at understanding changing nature of food habit as Covid pandemic is new to this generation which they never experienced earlier. People started to realize the importance of good food in building good immune system. Many People started to believe in native medicines, remedies etc. And started to give priority in adding fresh traditional/ native foods in their food menu and this paper is an attempt to understand the changes in food habit and mainly acceptability to buy farm fresh native foods direct from the farmers which is an opportunity for the farmers to improve their earnings. This study has thrown some light in peoples acceptability for native foods and also there is a positive change in the prioritizing traditional foods and also their willingness to purchase farm fresh produce.

**Keywords:** Covid 19, organic farming, indigenous farming, agri marketing, direct marketing

**Citation:** Vinuchakravarthi, V. and Srinivasan, S. 2022. Covid 19: change of perception towards food habit and assessing a new opportunity for Indigenous farmers. *Journal of Postharvest Technology*, 10 (1): 62-70.

## INTRODUCTION

Post globalisation there is a considerable change in the lifestyle, dining outside has become a part of lifestyle, traditional food habits were replaced with westernised food culture and dining outside has become a routine, restaurants has different menus and cuisines to satisfy foodies. But the Covid has made a considerable change of perception towards the importance of good food for good life. The solution suggested to the COVID-19 pandemic is maintaining hygiene, wearing masks and also boosting the immune system with Healthy food practices of olden days. AYUSH (Ministry of Ayush, Govt. of India) reiterates immunity boosting measures which also stress the importance of regular exercise and focus on healthy diet which includes herbs. India is the gifted country with each region has set of food crops available which are by in nature has lot of health benefits, we believe food is a medicine for many minor issues, but since it is the fast food generation, people started to forget the traditional foods. Decline in the demand and less yield made the farmers to switch over to high yielding crops. Few farmers group started to practise organic farming and started to produce the traditional crops but the challenge is marketing and pricing of the product.

\* For correspondence: V. Vinuchakravarthi (Email: [drvchakravarthi@gmail.com](mailto:drvchakravarthi@gmail.com))

## INDIAN AGRICULTURE IN BRIEF

India is a global agricultural powerhouse. It is the world's largest producer of milk, pulses, and spices, and has the world's largest cattle herd (buffaloes), as well as the largest area under wheat, rice and cotton. It is the second largest producer of rice, wheat, cotton, sugarcane, farmed fish, sheep and goat meat, fruit, vegetables and tea.

## SOME CHALLENGES

- Reducing rural poverty through a socially inclusive strategy that comprises both agriculture as well as non-farm employment: Rural development must also benefit the poor, landless, women, scheduled castes and tribes.
- Measures to increase productivity will need exploiting, amongst them: increasing yields, diversification to higher value crops, and developing value chains to reduce marketing costs.

## SOME OF THE INDIGENOUS CROPS AND THEIR MEDICINAL VALUES

### Millets

Millets have potential health benefits and epidemiological studies have showed that consumption of millets reduces risk of heart disease, protects from diabetes, improves digestive system, lowers the risk of cancer, detoxifies the body, increases immunity in respiratory health, increases energy levels and improves muscular and neural systems and are protective against several degenerative diseases such as metabolic syndrome and Parkinson's disease. Being rich sources of magnesium, millets help in reducing blood pressure and risk of heart strokes especially in atherosclerosis. Also, the potassium present in millets helps in keeping blood pressure low by acting as a vasodilator and help to reduce cardiovascular risk. Also, the plant lignans present in millets have the ability to convert into animal lignans in presence of microflora in digestive system and protect against certain cancers and heart disease. The high fiber present in millets plays a major role in cholesterol lowering eliminating LDL from the system and increasing the effects of HDL (Dayakar et al., 2017).

### Indigenous Rice

Some traditional South Indian rice varieties. Red Kavuni, Kaivara Samba, Kuruvi Kar, Poongar, KattuYanam, Koliyal, Maappillai Samba, Black Kavuni. Kavuni possesses anti-microbial activity. Kaivara Samba lowers blood sugar levels. Kuruvi Kar is resistant to drought and consumed by the locals for its health benefits. Poongar is consumed by women after puberty and is believed to avert ailments associated with the reproductive system. Kattu Yanam lowers glucose level in blood and also imparts strength. Koliyal is widely consumed as puttu, a specialty dish. Maapillai Samba has a hypocholesterolemic effect and anti-cancer activity and also improves fertility in men. Black Kavuni is resistant to drought and is popular among locals for its health benefits (Priya et al., 2019).

### A Brief note on Chennai

Chennai, the capital city of the state of Tamil Nadu, India, is the largest industrial and commercial center of South India. Recent estimates of the economy of the Chennai Metropolitan Area have ranged from US\$79 to US\$86 billion (PPP GDP),

ranking it from fourth to sixth most productive metro area of India, and the third highest by GDP per capita .The metropolitan area doesn't include the nearby industrial zones of Sholinganallur, Siruseri, Oragadam and Sriperumbudur, due to which these regions' economy doesn't get included in the total economy of Chennai. If these regions are included, the economy of Chennai would be somewhere around \$167 billion to \$210 billion.

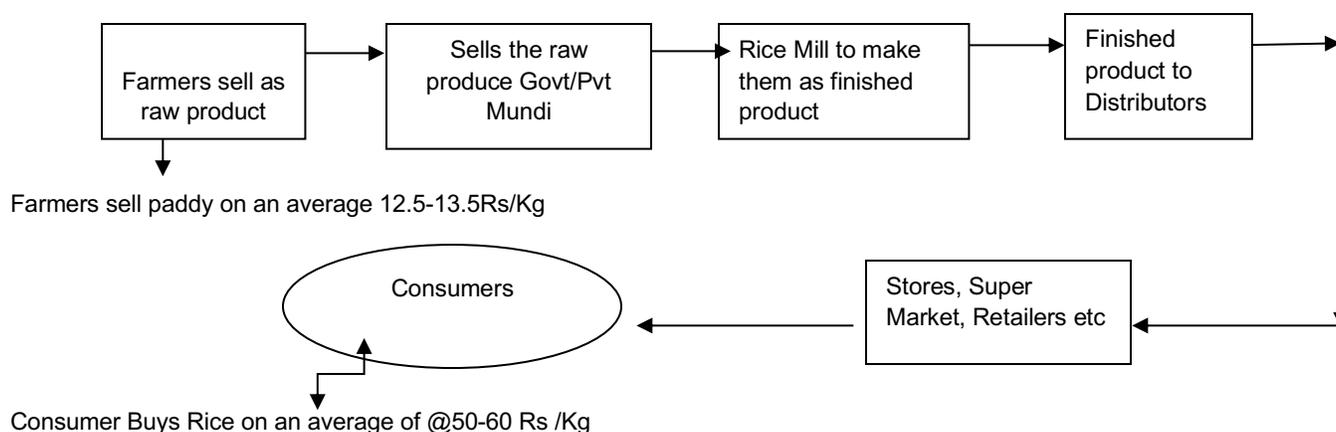
### FARMER TO CONSUMER MODEL – AN EXAMPLE

Aguglia and Salvioni (2014) found social movements have contributed to increasing awareness on environmental and health problems connected to the intensive use of chemicals in industrial food production. There is also an increased awareness about a range of environmental problem including the long distances food products travel from farms to consumers in the modern globalized agro-food system and the large amount of wastes produced by supermarkets. Social movements have also pointed out how the modernization of farming, based on the concentration of production in large units and in more productive territories has caused many socio-environmental problems. It exacerbated the economic marginalization of already disadvantaged territories, such as mountainous areas consisting of small family farms. In reaction to all these problems a movement has emerged that has sought to 'respatialize' and 'resocialize' agro-food systems. This movement is particularly strong in urban areas, where food demand is concentrated and where consumers have small or no alternatives to buy other than globalized and industrialized food offered by supermarkets. These are also spaces where social movements are more vibrant and active. In this sense urbanization is an important driver of rural restructuring (Jarosz, 2008).Localized agro-food systems (SYAL) have been adopted by these movements. This approach is a response to the demand of urban dwellers for food that is safer, fresher and that has a territorial identity.

### OBJECTIVES OF THE STUDY

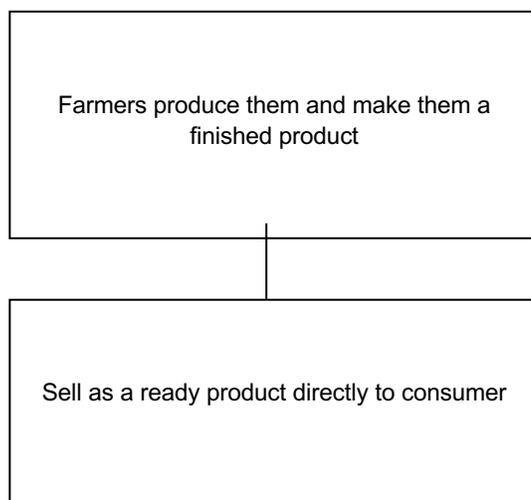
- To analyse the change of opinion towards traditional foods
- To understand the opportunity for direct selling of farm fresh products by farmers themselves
- To identify the preferred channels to buy traditional foods

#### Existing farmers produce distribution patter



In this model the farmer who producesells his work at much lower price due to the various channels involved and the consumer is in a position to pay high at the same time not able to get fresh products.

**Proposed direct buying model from farmers**



In this model, farmer knows his consumer base, he make the producee as the end product and directly sell them to the consumer, in this model it is the win- win situation for both the parties as farmer can also get better price for his produce and the consumer will also get a fresh, trusted and healthy foods.

**MATERIALS AND METHODS**

**Research methodology**

The primary objective of the study the changes in Food habit post Covid and identifying an opportunity for traditional foods which opens up an opportunity to farmers a new market. The research design for this study is descriptive in nature. Data were collected based on the convenience Sampling. A Sample of 126 respondents from with various age groups and gender were collected. Data Collected during a period of April 2021.

**Data Analysis and interpretation**

**Table No. 1 : Frequency distribution of demographic variables**

Particulars		Frequency	Percent
Age	25-30	14	11.1
	30-35	59	46.8
	35-40	24	19.0
	Above 40	29	23.0
	<b>Total</b>	<b>126</b>	<b>100.0</b>
Gender	Female	22	17.5
	Male	104	82.5
	<b>Total</b>	<b>126</b>	<b>100.0</b>
			Contd.....

Educational Qualification	Diploma,ITI	7	5.6
	Post Graduate	99	78.6
	Under Graduate	20	15.9
	<b>Total</b>	<b>126</b>	<b>100.0</b>
Profession	Business	28	22.2
	Others	9	7.1
	Private Employment	89	70.6
	<b>Total</b>	<b>126</b>	<b>100.0</b>
Monthly Earning	25-35k	49	38.9
	36-45k	32	25.4
	45-55k	27	21.4
	Above 55K	18	14.3
	<b>Total</b>	<b>126</b>	<b>100.0</b>
Preferred source to buy native foods	Direct from Farmers	100	79.4
	Farmers/Self helpGoups	29	23.0
	Social Media	20	2.4
	Super Market	18	14.3
	Grocery Stores	30	23.8
	E-Commerce Portal	13	10.3
	<b>Total</b>	<b>126</b>	<b>100.0</b>

**Chi Square test was conducted to study the relationship between Variable**

**H<sub>1a</sub>: There is a significant relationship between Monthly earnings of the Respondents and Frequency of eating outside food.**

Since p-value is greater than 0.05(i.e 0.064 with Chi-Square value of 20.141), Null hypothesis Accepted. So, there is no significant relationship between Monthly earnings of the Respondents and Frequency of eating outside.

**H<sub>2a</sub>: There is a significant relationship between Age of the Respondents and Frequency of eating outside food.**

Since p-value is less than 0.05(i.e 0.029 with Chi-Square value of 22.853), we reject null hypothesis. So, there is a significant relationship between Age of the Respondents and Frequency of eating outside.

**H<sub>3a</sub>: There is a significant relationship between Covid and respondents opinion about preference to add native food in the diet for better health.**

The Null Hypothesis is rejected with Chi-Square value of 67.749 at 5% level of significance. So, There is a significant relationship between Covid and respondents change of opinion about adding native food in the diet for better health.

**H<sub>4a</sub>: There is a significant relationship between Covid and Interest towards learning more on the traditional food menus**

The Null Hypothesis is rejected with Chi-Square value of 43.033 at 5% level of significance. So, there is a significant relationship between Covid and Interest towards learning more on the traditional food menus

***Kruskal Wallis Test was conducted to study the level of distribution of opinion among income groups***

**Income Group**

**H<sub>5a</sub>: Covid has an impact and change in the thought on outside food is different across Income group.**

Retained Null Hypothesis with p-value of 0.208 with test statistics of 4.551. So, there is no difference in lockdown impact and changes in outside food. All income groups had a influence on covid and change of thought towards outside food.

**H<sub>6a</sub>: Change in Opinion towards preference of native food are different across Income group.**

Retained Null Hypothesis with p-value of 0.306 with test statistics of 3.616. So, there is no difference in change towards native food habits. People from all income groups have change in opinion towards native food habits.

**H<sub>7a</sub>: learning for New menus of native foods is different across Income group.**

Retained Null Hypothesis with a p-value of 0.078 with test statistics of 6.806. So, people from all income group started learning for different menus of native food post covid.

**H<sub>8a</sub>: Lockdown has given chance to avoid outside food and eat native food is different across Income group.**

Retained Null Hypothesis with a p-value of 0.528 with test statistics of 2.220. People from all income group has availed the chance to avoid outside food and ate native food during lockdown.

**H<sub>9a</sub>: People from different income groups believe that the traditional foods are good for health.**

Retained Null Hypothesis with p-value of 0.647 with test statistics of 1.654. People from all income groups believe that traditional foods are good for health

***Kruskal Wallis Test was conducted to study the level of distribution of opinion among age groups***

**Age Group**

**H<sub>10a</sub>: Covid-19 had an impact and changed the thought of outside food is different across Age Group.**

Retained Null Hypothesis with p-value of 0.215 with test statistics of 4.471. So, there is no difference in impact and changes in the thought on outside food. People from all age group were has an influence in though post Covid 19 and change of opinion towards outside food.

**H<sub>11a</sub>: Change of Opinion towards native food habits are different across Age Group.**

Retained Null Hypothesis with p-value of 0.148 with test statistics of 5.350. So, there is no difference in change towards native food habits. People from all age group have positive change in opinion towards organic food and native food habits.

**H<sub>12a</sub>: learning of new menus of native foods is different across Age Group.**

Null Hypothesis is rejected with a p-value of 0.016 with test statistics of 10.321. So, people differ in the opinion towards searching and browsing for different menus of native food during lockdown. People in the age group of 31-35 has very much interested in learning new menu that can be prepared.

**H<sub>13a</sub>: People are interested to have traditional foods but don't know the cooking procedure is different across Age Group.**

Null Hypothesis is rejected with a p-value of 0.037 with test statistics of 8.370. People are interested to have traditional food but don't know the cooking procedures, some age group don't know the procedure and some group has good idea about cooking procedure.

**H<sub>17a</sub>: People from different Age Groups believe that the traditional foods are good for health.**

Retained Null Hypothesis with p-value of 0.085. People from all age group believe that traditional foods are good for health

## **RESULTS AND DISCUSSION**

Chi square test conducted to find the relationship between the variables and the output is

- There is no significant relationship between Monthly earnings of the Respondents and Frequency of eating outside food.
- There is a significant relationship between Age of the Respondents and Frequency of eating outside food.
- There is a significant relationship between Covid and respondents change of opinion about adding native food in the diet for better health.
- There is a significant relationship between Covid and Interest towards learning more on the traditional food menus

The results clearly indicates that there is an impact from of covid and there is a change of opinion to reduce having food and to add native/indigenous food in their menus.

Kruskal Wallis is employed to identify the level of distribution of opinion among income groups, The results indicate there is an influence and change in thought across all income groups change of thought towards outside food. And it is to be noted that all income groups has positive change of opinion towards indigenous food products. And all income group people has also

started to learn about more new menus in native crops. People also started to avoid outside food and developed a belief that native foods are good for health.

Kruskal Wallis Test was conducted to study the level of distribution of opinion among age groups; People from all age group have an influence in thought post Covid 19 and changed their opinion towards outside food. Also People from all age group have positive change in opinion towards organic food and native food habits. People in the age group of 31-35 has very much interested in learning new menu that can be prepared. Some age group has an awareness of cooking procedures of traditional procedure, but not all age group of people are aware about cooking procedures. Irrespective of age group all people accept that those traditional foods are good for health

Home food procurement (HFP) (i.e. gardening, fishing, foraging, hunting, backyard livestock and canning) has historically been important ways that people obtain food. Recently, some HFP activities have grown (e.g. gardening), while other activities (e.g. hunting) have become less common in the United States (Niles et al., 2021) 1% increase in daily new COVID-19 cases led to a 0.0556% decrease in daily restaurant demand, while stay-at-home orders were collectively associated with a 3.25% drop in demand (Yang et al., 2020). The Italian lockdown highly affected FC behaviours, leading to positive and sustainable habits towards food purchase and consumption. Public health interventions are needed to keep these new positive effects and avoid negative consequences in case of future lockdowns (Scacchi et al., 2021). Major studies has also found that there is an impact post covid and there is an impact in the food habit and this studies further carried in detail and found that across income and age group there is a change of opinion towards the outside food and positive change in people opinion on Home based organic and indigenous food, people are interested to learn more menus in native food and there is an opportunity for native food farmers and there is an opportunity for the farmers to directly market their produce.

## CONCLUSION

It is found that post covid there is a significant change in the change of mindset among people and they have an increased awareness about the traditional food items. Though India is agri based economy and majority of the population depends on agriculture for employment, the farmer's life is challenging due to the increased expenditure for farming and labour cost traditional crop can reduce the expenditure and on the other hand due to the increased awareness towards the traditional food has opened a new avenue for the farmers. This will help both the consumers and also the farmers, consumer will get a good food on the other hand farmers can get better pricing for their produce if they sell directly to consumers as finished product. This will be a win- win situation for all.

## REFERENCES

- Aguglia, L., and Salvioni, C. 2014. Direct selling in Italy: Marketing strategy to promote localized agri-food systems. *Food and Rurality in Europe-Economy, Environment and Institutions in Contemporary Rural Europe*, 105-128.
- Dayakar Rao, B., Bhaskarachary, K., Arlene Christina, G. D., Sudha Devi, G., Vilas, A. T., and Tonapi, A. 2017. Nutritional and health benefits of millets. ICAR\_Indian Institute of Millets Research (IIMR): Hyderabad, Indian, 112.

- Jarosz, L. 2008. The city in the country: Growing alternative food networks in Metropolitan areas. *Journal of Rural Studies*, 24(3): 231-244.
- Niles, M. T., Wirkkala, K. B., Belarmino, E. H., and Bertmann, F. 2021. Home food procurement impacts food security and diet quality during COVID-19. *BMC Public Health*, 21(1): 1-15.
- Rathna Priya, T. S., Eliazer Nelson, A. R. L., Ravichandran, K., and Antony, U. 2019. Nutritional and functional properties of coloured rice varieties of South India: a review. *Journal of Ethnic Foods*, 6(1): 1-11.
- Scacchi, A., Catozzi, D., Boietti, E., Bert, F., and Siliquini, R. 2021. COVID-19 lockdown and self-perceived changes of food choice, waste, impulse buying and their determinants in Italy: QuarantEat, a cross-sectional study. *Foods*, 10(2): 306.
- Yang, Y., Liu, H., and Chen, X. 2020. COVID-19 and restaurant demand: early effects of the pandemic and stay-at-home orders. *International Journal of Contemporary Hospitality Management*, 32 (12): 3809-3834.



© The Author(s)

This is an  Open Access article licensed under a Creative Commons license: Attribution 4.0 International (CC-BY).