

## *Conference Proceedings*

# INDIAN FOOD HERITAGE

**History, Evolution, Influences and Modern Trends**

**12<sup>TH</sup> & 13<sup>TH</sup> March, 2018**

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NEW DELHI

## **MESSAGE**

I am glad to know that NCHM&CT Noida, is bringing out a book highlighting the research work of scholars in the field of Hospitality and Hotel Administration. This book is a medium which could aptly be used for recording research, events, fond memories and creative writing. I am sure that this will be informative and resourceful. On this occasion, I convey my good wishes to the NCHM&CT Management, Principals, Students, Faculty and Staff of all the IHMs, FCIs and affiliated colleges across India in their endeavours.

The NCHM&CT has been built on the foundation of sound academic principals in the field of hospitality and a robust academic environment. The eminence of faculty & staff of expertise, latest infrastructure and modern technology are to provide an effective student centric learning environment. Faculty all over provides individual attention to ensure that our students feel inspired, supported and cared. The all-round focus is on meeting the ever evolving demands of the tourism sector. Students under the NCHM&CT umbrella are from varied background with social, economical and cultural diversity. Our scrupulous and experienced teaching-learning processes prepare them in tune with their academic qualification and personal aspiration. The internships provide intervention and enhance the practical application and general awareness of the industry. This multiple approach transforms students into emotionally mature, balanced, intelligent, well prepared, value driven and high performing professionals, capable of taking up the career challenges in a globally competitive market place. Let me welcome the student too, in the exciting journey of achievement and success in their association with NCHM&CT affiliated institutes.

Once again, my best wishes for the success of the Conference and I Wish to see NCHMCT offering more such interactive learning opportunities in future.

**(Rashmi Verma)**  
**Chairperson NCHM&CT**  
**07.03.2018**

सत्यजीत राजन भा.प्र.से.  
**Satyajeet Rajan, IAS**

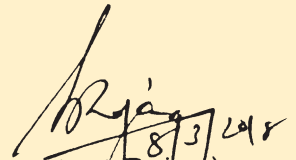


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## MESSAGE

I congratulate NCHMCT for their endeavour in organising a conference on the theme of Indian Food Heritage. It's a very timely intervention in the form of organising deliberations on the subject of history and evolution of our cuisine and providing a platform to the academic scholars in the field to present their research work. The book being published in the process will help in recording and preserving the scholarly work which will serve as a reference material for future.

Food and travel has always been closely interlinked. Our ancient culture of '*Atithi Devo Bhava*' takes the realm of hospitality to a different paradigm. Food has also been a guiding force in national integration. Spices cultivated in south India are an integral part of Kashmiri cuisine up-north while the saffron produced in Kashmir gets used in south Indian delicacies. Food indeed is a unifying force. Travel helps open the doors to intercultural exchange and dialogue. With billions of people now crossing international borders each year, tourism represents a golden opportunity to break down the barriers of ignorance and prejudices. We must leverage our strength as a global destination of heritage, culture, spirituality, well-being and culinary delight by appropriate positioning and marketing. NCHMCT's effort towards that end is truly commendable and noteworthy. I wish them all the best in their endeavours.

  
(Satyajeet Rajan)  
8<sup>th</sup> March, 2018

ज्ञान भूषण आई.ई.एस.  
Gyan Bhushan, I.E.S.



आर्थिक सलाहकार एवं मुख्य कार्यकारी अधिकारी  
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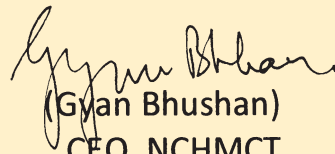
## MESSAGE

National Council for Hotel Management and catering Technology works in the area of coordinated growth and development of hospitality education in the country. In line with our commitment towards fostering quality research and development in the field of hospitality education we are organizing a national level conference.

The theme of 'Indian Food Heritage: History, Evolution, Influences and modern trends' has been chosen after lot of deliberations and brain-storming. We have a glorious tradition of food being a central and integral part of not only our gastronomy but also of our cultural identity, religious practices and social interactions. The scholarly exchange of ideas at the conference and shared research will help in recording the history and practices related to our cuisine.

The Ministry of Tourism, Govt. of India under the reassuring shadow of the able leadership of our Hon'ble Prime Minister and Hon'ble Minister of Tourism will always be the spearhead in acknowledging and delivering the aspirations of our fellow countrymen. I am sure the initiatives taken by the NCHM&CT currently and in the future will play an important role in achieving that goal.

We plan making this conference an annual affair and to increase its canvas by making it international in which global experts on subjects relate to hospitality are invited to share their view. We look forward to the co-operation of all our stakeholders in the success of the event and we thank you all for your continued support and cooperation.

  
(Gyan Bhushan)  
CEO, NCHMCT  
08.03.2018

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## **PREFACE**

Food in India has been an integral part of its glorious history and rich heritage. Indians cook not only for sensory delights but the food has also been an integral part of our socio-cultural life and rituals. Indian cuisine reflects the culture and tradition of the country which comprises of countless landscapes, different languages, magnificent festivals and multi-ethnicity. The presence of diverse climatic condition has also helped the choice and the availability of ingredients and spices. Indian food heritage is a mixture of art and science and is exceptionally vast and diverse. 'Annam Parabrahma Swaroopam' – Loosely translated as 'Food is like God' is a part of our collective conscience and our ethos. Indian cuisine has evolved over a period of time, both, through a process of internal churning and also because of various foreign influences.

Many of our recipes and part of our food heritage is getting lost because of a lack of documentation, recording and research in this field. In the above background context, NCHMCT is organizing this national level conference on the theme of 'Indian Food Heritage: History, Evolution, Influences and Modern trends'. This conference attempts to reflect upon the history and evolution of our cuisine along with deliberations on modern trends such as fusion and health food concepts. Given our rich food heritage, the conference also explores the possibility of developing India as a significant culinary tourism destination in the world. We hope that the deliberations and discussions among the scholars in this discipline and the publication of scholarly articles in this book will help in creating more informed awareness about this great cuisine and its legacy.

**Priyadarshan Lakhawat**  
Dy. Director (Academics & Trg), NCHMCT/  
Conference Organizing Secretary

## **ACKNOWLEDGMENTS**

It's a matter of immense pleasure to show our gratitude towards Smt Rashmi Verma ,IAS Secretary Tourism GoI and chairperson NCHMCT, Shri Satyajeet Rajan, IAS, Director General-Tourism, Shri Gyan Bhushan, IES Economic Advisor & CEO NCHMCT for their support and guidance at every step. We thank Shri L.K.Ganguli, Director ( A&F) and Shri Satvir Singh , Director (Studies) NCHMCT for their notable contribution as our chief advisors. We also thank all the members of the conference advisory board and members of editorial board for their valuable inputs and constant support for making this conference a success. We sincerely express our indebtedness and deep sense of gratitude to all the researchers and article writers for their contribution in this book, without which the proceedings would not have taken the direction and shape as presented in this book.

**Conference Organizing Committee**

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# 1

## CHAPTER

### **Gastronomic Tourism and Local Cuisine: A Relationship Between Preference of Eating Local Food Items and their Affordability as Per the Foreign Tourists Visiting Mumbai City**

**Dr. Lomte D M\* & Amol Kumar\*\***

#### **ABSTRACT**

*The purpose of this study focuses on perceptions about Mumbai gastronomy tourism, based on samples of those foreign tourists visited Mumbai city in the Month of January 2015. Mumbai is the commercial capital of Republic of India and is one of the predominant port cities in the country; also it is capital of Maharashtra and gateway to modern India. The history of food is linked to the growth of this city from the finishing village to a metropolis. As people from different parts of India started settling in the city, they brought their native culture and traditional food to this city. The city has developed some of its unique street food like Vada-Pav. Researcher would like to find out the relationship between "Preference of Eating Local Food Items and their Affordability" through this research paper. Researcher has collected data from 200 foreign tourists through structured questionnaire. Data is analyzed by using quantitative and qualitative methods. A Likert's scale is used to analyze the likeness of local cuisine. Chi-square test used to test null hypothesis. Excel 2007 and SPSS 16.0 are used to prepare tables, graphs and to calculate "p" and "mode" value. Finally we concluded that Main Course is most preferred by the respondents having "Mo=5" and Snacks, Beverages, Sweets and Street Food are also preferred having "Mo=4" while they are in Mumbai. There is very strong evidence of relationship between affordability and likeness of local cuisine food items in Mumbai (Chi - square = 86.716, df = 1,  $p < 0.001$ ).*

**Keywords:** Local Cuisine, Mumbai, Tourism, Gastronomic Tourism, Likeness and Affordability etc.

#### **INTRODUCTION**

Maharashtra is a state in the western region of India and is the India's and also the world's second-most populous sub-national entity. It has over 110 million inhabitants in its capital. Mumbai has a population of approximately 15.2 million. Mumbai is also the financial capital of the nation and the headquarters of all major banks, financial institutions and insurance

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\* Faculty Member, Indian Culinary Institute, Tirupati.

\*\* Faculty, NCHM-IH National Council For Hotel Management & Catering Technology, Noida.

companies in the country. India's Hindi film industry, Bollywood, and Marathi film and television industry are also located in this state. Maharashtra's business opportunities along with its potential to offer a higher standard of living attract migrants from all over India.

Mumbai is the glamour of Bollywood cinema, cricket on the *maidans* (open grassed areas), *bhelpuri* (a spicy sweet Mumbai snack) on the beach of Chowpatty, outstanding colonial architecture and red double-decker buses.

## CUISINE

The metropolis has a roadside fast food consisting of *Vada pavs*, *Dabeli*, *Panipuri*, *Bhelpuri*, etc. South Indian and Chinese food is also popular in the city. Other cuisines in the city are Lebanese, Korean, Thai, Italian and Mexican. Other than Chinese and South Indian cuisines, Mughalai, Punjabi, Mālvani and Continental are also popular.

Mumbai has some of the oldest restaurants in India. *Delhi Darbar*, *Sindhudurg*, *Highway Gomantak*, *Samrat*, *Vitthal Bhelwala*, *Mahesh Lunch Home*, *Kailas Parbat*, *Adarsh* are some of the oldest restaurants in the city. Mumbai is known for its roadside food stalls and its restaurants.

Mumbai being the financial capital has a large number of migrant populations. Members of the migrating families are working with no other family support, hence ordering food from close by restaurants or calling for pre-packaged meal (*dabba* as called locally) is an accepted thing. Owing to these recent trends there have been some online food ordering services that have cropped. Tea is the most popular beverage followed by coffee. There are tea stalls in almost all roads and corners. Other drinks include fruit juices and coconut water. Irani cafés are a part of Mumbai's cosmopolitan heritage

"Local Cuisine of Mumbai is nothing but Cuisine of India and traditional cuisines of permanent settlers of foreign countries in Mumbai like Parsi. Also this is having a dominance of Coastal Maharashtrian Cuisine i.e. Konkan" (LOMTE, D M, 2014)

## SURVEY OF LITERATURE

Culinary or gastronomical activities of a destination are also categorized as part of cultural tourism (CORIGLIANO, M. A., 2002). Richards (RICHARDS, G., 1996) claimed that cultural tourism may include experiencing the cultural attractions as well as sampling the local food. Long (LONG, L. M., 2004) emphasized that savouring the food of others is the way one can really experience and accept different culture without reluctance. Therefore, gastronomy tourism holds potential in Mumbai and it has increasingly drawn tourists' attention as Mumbai's unique food cannot be found elsewhere in the world. Over the centuries Mumbai developed a special, unique cuisine that combined elements of Parsi, Irani, Indian, and even Konkan cooking. As a result, gastronomy tourism combines not only cuisine and tourism, but also cuisine and culture. While promoting the gastronomy tourism, it is necessary to use the unique local cuisine and food culture as the image of gastronomic destination in Mumbai. Therefore, gastronomy tourism offers great potential to be promoted in Mumbai.

Until recently, the contribution of food to tourism has been largely ignored in spite of its apparent importance and potential. It is important to consider the role of food tourism and how it can be utilized and further enhanced to contribute to the effective marketing of a

destination. In this regard it is also essential to consider how food tourism can be incorporated in the marketing and promotional material of a region.

Handszuh (HANDSZUH, H., 2000), argues that local food holds much potential to enhance sustainability in tourism, whereby the tourism planner and the entrepreneur should work hand in hand to satisfy the consumers; contribute to the authenticity of the destination; strengthen the local economy; and provide for the environmentally-friendly infrastructure, including the ways and means by which food resources, both local and imported, are handled. This approach was not always common practice at the local level. Traditionally many local people did not hold their own cuisine in high regard, and often viewed it as not being sophisticated enough and definitely not something a tourist would want (KAPNER, S., 1996). All indications are that this attitude is changing and is in accordance with the market trend where tourists want to experience and “taste” the region they are visiting (BESSIERE, J., 1998) (REFALO, M., 2000), an underlying reason being that culture is playing an increasingly important role in tourism and food is one of the key elements of culture.

Tourists enjoy indigenous food, particularly items of local or ethnic nature (WAGNER, H. A., 2001). Furthermore knowledge of the local, regional and national cuisine has become an interest for tourists (CHAPPEL, S., 2001). Macdonald (MACDONALDS, H. S., 2001) and Bessiere (BESSIERE, J., 1998) report that people interested in travelling for gastronomical motivations are on the increase. In spite of these trends, gastronomy has not been considered for its real potential (BERNARD, A., & Zaragoza, I., 1999), nor exploited conveniently as a tourism resource. It needs to be identified and applied as a branding mechanism for a destination.

## RESEARCH QUESTION

Researcher would like to understand relationship between preference of eating local food items and their affordability as per the Foreign Tourists; visiting Mumbai City

## HYPOTHESIS

$H_0$ : There is no evidence of relationship between affordability and likeness of local cuisine food items in Mumbai

$$H_0: p > 0.001; df=1$$

$H_A$ : There is evidence of relationship between affordability and likeness of local cuisine food items in Mumbai

$$H_A: p > 0.001; df=1$$

## RESEARCH METHODOLOGY

A multi-method approach, utilizing both qualitative and quantitative methods, has been undertaken for this research.

**Secondary Data:** Data from primary and secondary sources such as books and journal articles played a major part in this investigation, either for corroboration or as a point of reference for the study. Secondary resources included tourism surveys and economic surveys conducted by State and Central Government Departments. The Internet also provided a valuable source of secondary data; however, the most important role of the Internet was in providing ‘leads’

to 'original' sources of information through online journal searches. Primary data collected from 200 foreign tourists.

A self-administered questionnaire was developed based on a comprehensive literature review. The questionnaire consisted of three sections: the perceptions of foreign tourist and the intention to visit Mumbai, Likeness about local cuisine, demographic characteristics. First section is utilized to understand the demographic details. The second section is related to the perceptions of foreign tourist about local cuisine of Mumbai. A 5 point Likert scale was used. Respondents were asked to rate the likeness about food items in Mumbai that ranged from 1 = strong dislike to 5 = strong like

### Sample and Procedure

The target population for this study was Foreign Tourists visiting Mumbai City, who was interested in discussing gastronomy of tourist destinations, enjoyed tasting local food and experienced food culture while travelling. The reason selecting this target population meant that we could understand the demand of local cuisine of Mumbai. We could then understand whether they had learned about Mumbai gastronomy while they are in Mumbai. The sample population was obtained from following places in Mumbai

- Causeway
- Nariman Point
- Near Chatrapati Shivaji Vastu Sangrahalaya
- Restaurants
- CST

In order to identify a valid sample in this study, the beginning of this questionnaire had stated the purpose of this study clearly; for those who visited above said places in Mumbai. By focusing on the gastronomy tourists, the questionnaire was only answered by those tourists whose purpose was for tasting and learning Mumbai gastronomy only.

The pilot study was conducted in November 2013. A total of 40 participants were obtained from students of Government ITI, Mulund, Mumbai to check whether the wording and meaning of the statements were clear for them to respond. After modifying some unclear meaning and wording in the questionnaires, the main study was conducted from November 14 to January 2015.

### DATA ANALYSIS TOOLS

The study adopted convenience sampling to collect data and applied SPSS16.0 to analyse data. 205 copies of questionnaires were distributed and 198 copies were returned. Excluding 7 invalid copies, 198 copies of questionnaires are used for data analysis. Thus, the effective response rate was 96%. Data analysis was divided into two phases. In the first phase, frequency analysis was used to analyse respondents' demographic information. In the second phase, Mode (Mo) scores were calculated. *Chi-square* test used to understand the relationship between affordability and likeness of local cuisine food items in Mumbai

## DEMOGRAPHIC PROFILES

The gender of the respondents was almost equally distributed with 58.3% male and 41.2% female. Almost half of the respondents' ages were 19-35 years old (47.7%), and followed by 36-55 years old (36.7%), below age 18 (2.5 %) and above 55 years old (12.6%) also responded.

**Table 1: Age of Respondent**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 to 18	5	2.5	2.5	2.5
	19 to 35	95	47.7	48.0	50.5
	36 to 55	73	36.7	36.9	87.4
	Above 55	25	12.6	12.6	100.0
	Total	198	99.5	100.0	
Missing	System	1	.5		
Total		199	100.0		

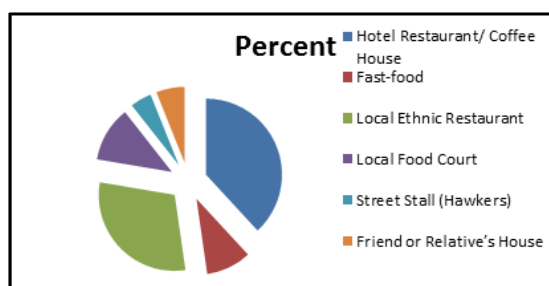
**Table 2: Gender of Respondent**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	116	58.3	58.6	58.6
	Female	82	41.2	41.4	100.0
	Total	198	99.5	100.0	
Missing	System	1	.5		
Total		199	100.0		

## Descriptive Analysis

Total 197 respondents have been responded on "Restaurants or Food outlets often dinned in Mumbai during your visit". 75 respondents (37.7 %) say that they have preferred Hotel / Restaurant / Coffee House. 59 respondents (29.6%) say that they have dinned in local ethnic restaurant. 23 respondents (11.6 %) say that they have dinned at local food court. 12 respondent (6%) say that they have dinned at their relatives or friends house. Only 9 respondents (4.5%) say that they have dined with street stalls (hawkers).

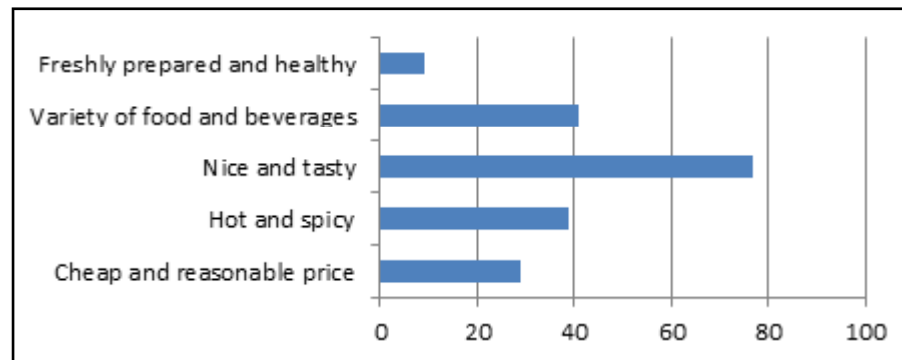
**Table 3: Restaurant or Food Outlet Dined Often in Mumbai during visit**





Total 195 respondents have been responded about “perception about food and beverages from Mumbai. 77 respondents (38.7 %) found nice and tasty. 41 respondents (20.6%) found variety of food and beverages in Mumbai. 39 respondents (19.6%) found hot and spicy. 29 respondents (14.6%) found they are cheap and reasonable priced. Very few 9 respondents (4.5%) found they are freshly prepared and healthy.

**Table 4: Perception About Food and Beverages from Mumbai**



Total 179 respondents have responded on whether local food items are affordable in restaurants. 155 respondents (77.9 %) have responded ‘Yes’; and 24 respondents (12.1 %) have responded “No”.

**Table 5: Are Local Food Items Affordable in Restaurant?**

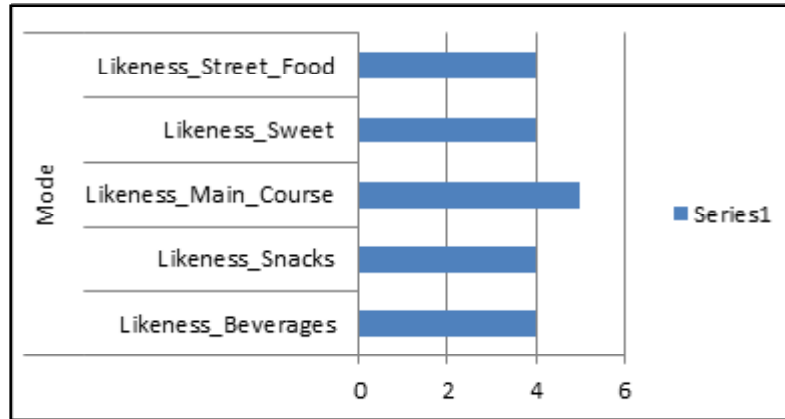
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	155	77.9	86.6	86.6
	No	24	12.1	13.4	100.0
	Total	179	89.9	100.0	
Missing	System	20	10.1		
Total		199	100.0		

Respondents were asked to rate the likeness about food items in Mumbai cuisine that ranged from 1 = Strong Dislike, 2 = Dislike, 3= Neither like nor Dislike, 4= Like to 5 = strong like. These were asked about Beverages, Snacks, Main Course, Sweets, and Street Food having Mode (Mo) 4, 4, 5, 4 and 4 respectively.

**Mode**

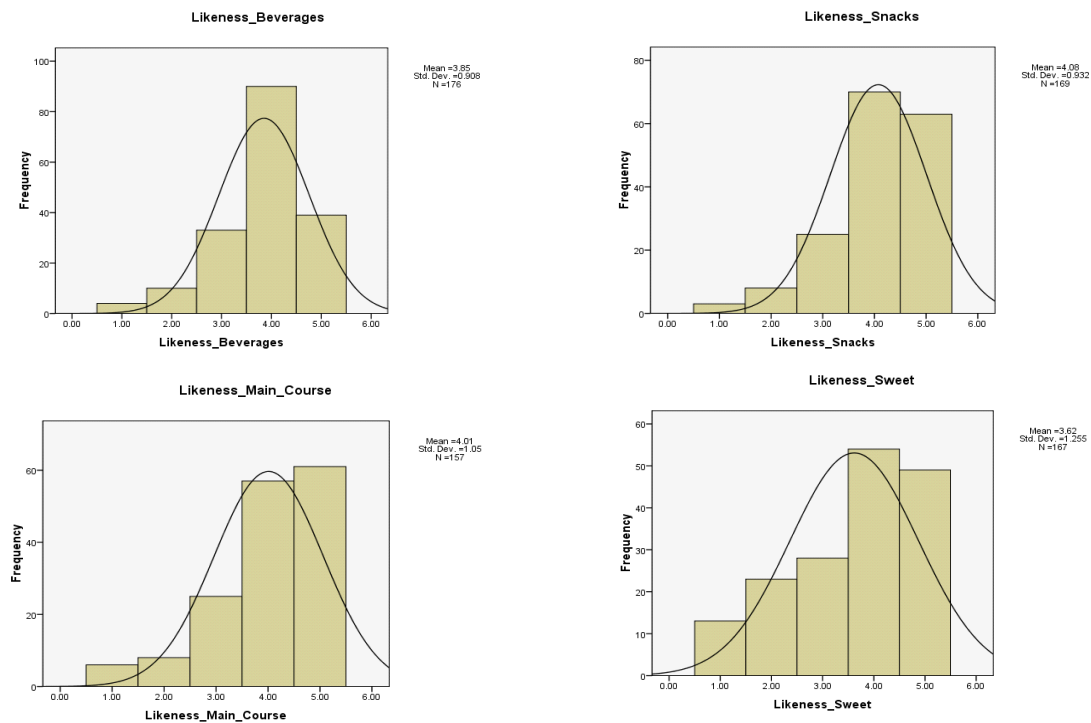
		Likeness_ Beverages	Likeness_ Snacks	Likeness_Main_ Course	Likeness_Sweet	Likeness_ Street_Food
N	Valid	176	169	157	167	177
	Missing	23	30	42	32	22
Mode		4.00	4.00	5.00	4.00	4.00

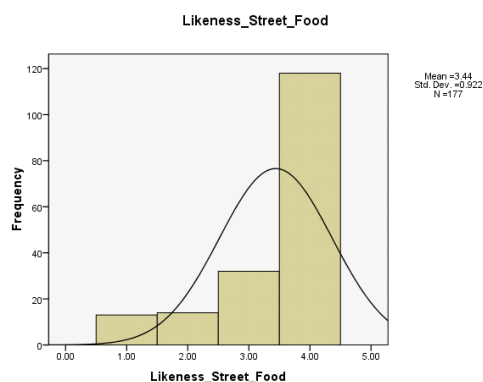
Table 6



In the above all figures we can observe, that foreign tourist visited Mumbai city, have preferred appreciated all the food and beverages; but most of them have preferred Main Course with strongly agreeing the statement. There is definite demand for local cuisine of Mumbai, can branded as Food destination.

Table 7





### Cross tabulation

Cross tabulation conducted between affordability and eating of indigenous Mumbai food. Total 178 respondents have replied to this question; having response rate of 89.4%.

**Table 8: Case Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Are Local Food items affordable in Restaurant? * Eating indigenous Mumbai Food	178	89.4%	21	10.6%	199	100.0%

Total 155 respondents have responded “Yes” to both the questions and Total 12 respondents have responded “No” to both the questions. No respondents have denied having indigenous Mumbai food. Only 11 respondents have responded that Mumbai food items are not affordable in restaurants.

**Table 9: Are Local Food Items Affordable in Restaurant? \* Eating Indigenous Mumbai Food Cross Tabulation**

Count				
		Eating indigenous Mumbai Food		Total
		Yes	No	
Are Local Food items affordable in Restaurant?	Yes	155	0	155
	No	11	12	23
Total		166	12	178

*Chi – Square* test conducted to find out the association between affordability and eating preference. Table-10 gives us the result of this test; Chi – square = 86.716,  $df = 1$ ,  $p = 0.000$ . This result shows that there is association among these variable. The value “ $p$ ” gives strong evidence of association among these variables.

**Table 10: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	86.716a	1	.000		
Continuity Correction <sup>b</sup>	78.616	1	.000		
Likelihood Ratio	56.056	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	86.228	1	.000		
N of Valid Cases <sup>b</sup>	178				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.55.

b. Computed only for a 2x2 table

## HYPOTHESIS TESTING

As observed in Table -10, the value of “ $p$ ” is 0.000; where  $df = 1$ .

$$p = 0.000$$

Therefore

$$p < 0.001; df=1$$

Hence null hypothesis got rejected and alternative hypothesis got accepted. There is very strong evidence of relationship between affordability and likeness of local cuisine food items in Mumbai.

## DISCUSSION AND CONCLUSION

In this study, the researchers attempted to investigate the relationship between affordability and likeness of local cuisine food items. Based on the research findings, this study can be concluded as follows.

### Affordability and Likeness

Study has concluded that, there is strong evidence of association between affordability and likeness of local food items. That means if local food items are available cheaply than the other food items on the menu, tourists will prefer to taste the local food items. Promotion of local food items will have positive socio-economic impact on society. Hence this study recommends that, local food items should be available in all restaurants in Mumbai and their rates should be cheaper than the other food items on Menu. Local authority can prepare standard list of local food items and recommend rates in consultation with stakeholders.

### LIMITATIONS

1. Study conducted at Mumbai, so results of this study cannot be generalized for India.
2. Study conducted with time and financial constraints of the researchers
3. Only white tourist approached for getting responses, so results may be biased.

### FUTURE SCOPE OF RESEARCH

Same study can be conducted having representative sample of India. Apart from affordability and likeness; the variables like hygiene, socio economic impact, designated places and presentation etc can be considered.

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## 2

### CHAPTER

## A Study on the Role of Local Cuisine as a Tourist Attraction

Shweta Misra\* & Anil Kumar Goyal\*\*

### ABSTRACT

**Background:** Culinary Tourism or food tourism is the exploration of food as the purpose of tourism. It is considered a vital component of the tourism experience as it is an integral part of tourism because the tourist who moves out of his home will obviously have food outside.. According to World Food Travel Association, "Food Tourism" includes the food carts and street vendors as much as the locals-only (gastro) pubs, dramatic wineries or one-of-a-kind restaurants. In addition to travelling across country or the world to eat or drink, one can also be food travellers in their own regions, cities and neighbourhoods. The act of travelling is implied because most people travel at least across their own town, if not the region, the country and even the planet. Every tourists eats about three times a day, making food one of the fundamental economic drivers of tourism. **Objective:** Objective of the study was (a) to understand the role of local cuisine as a tourist attraction; (b) to understand the interest of different age groups in food tourism. **Methodology:** Co-relational quantitative design was used. Locale of the study was Bharat Parv 2018, Red Fort, New Delhi. Sample size taken was 130. Interview technique was used as tool. For analysis, percentage, mean and standard deviation were used. **Conclusion:** This study will give an insight to the stakeholders of the food industry about the impact of the local food in attracting tourist to the destination. The restaurants, food street carts, local food vendors will be able to identify which age group people travel for food to their region so that customisation of the product may be done, if required, to suit their palate. A food experience that can sweep the tourist of their feet not only leaves them satiated but also makes them hungry to explore more. We often talk about the rich and diverse cultural heritage of our country but seldom have we realised that the diversity in our cuisines also make our nation in every sense, "Incredible India".

**Keywords:** Food Tourism, Culinary Tourism, Bharat Parv, Food Festivals.

### BACKGROUND

Ontario Culinary Tourism Alliance presented a report on The Rise of Food Tourism (2015) which mentioned that the local food served is to connect people with their land, heritage, and the people around them. Local food is a diverse and dynamic channel for sharing stories,

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forming relationships and building communities. By combining local food and drink with travel, food tourism offers both locals and tourists alike an authentic taste of place while contributing to a sustainable world economy.

According to the Ontario Culinary Tourism Alliance (OCTA), "Food tourism is any tourism experience in which one learns about, appreciates, and/or consumes food and drink that reflects the local, regional or national cuisine, heritage and culture." The 2013 "American Culinary Traveller Report," published by Mandala Research, showed that the percentage of U.S. leisure travellers who travel to learn about and enjoy unique dining experiences grew from 40% to 51% between 2006 and 2013.

As per the website of World Food Travel Association, culinary tourism is said to be food tourism. It may be both far and near. That means a traveller may travel across countries, or world to eat or drink or one can experience food tourism in their own regions, cities and neighbourhoods. If one travels across town to a new neighbourhood to go to a special grocery store or to eat out, he is a "food traveller". The act of travelling is implied because most people travel at least across their own town, if not the region, the country and even the planet. The distance covered is not as important as the fact that one is always on the move. People are all "travellers" of a sort and are all "eaters". Therefore, one can be regarded as "food travellers". "Food Tourism" includes the food carts and street vendors as much as the locals-only (gastro) pubs, dramatic wineries, or one-of-a-kind restaurants. There is something for everyone in the food tourism industry.

Taste trekker's website defines Food tourism (or "culinary tourism") as a matter of travelling beyond once immediate neighbourhood to find great food. Of course, the further one is willing to travel, the broader the range of culinary experiences will be. Whether traveller is heading to Italy for the pasta, Napa for the wine, or Texas for the barbecue, one is said to be food tourist or taste trekkers.

Long (2014) describes Culinary tourism as the focus on food as an attraction for exploration and a destination for tourism. Although food has always been a part of hospitality services for tourists, it was not emphasized by the tourism industry until the late 1990s. It includes a variety of formats and products like culinary trails, cooking classes, restaurants, farm weekends, cookbooks, food guides, and new or adapted recipes and even ingredients.

Different Cuisine, Food and drink are ranked next to climate, accommodation, cost, sports activities and scenery as important destination attributes and an important activity during holiday (Jenkins, 1999).

UNWTO, (2012) published a report on "Global trends in food tourism" which revealed that food tourism has grown considerably and has become one of the most dynamic and creative segments of tourism. UNWTO researchers have pointed out that culinary tourism one of the most dynamic segments within the tourism market. Reza (2014), mentions that local food can be seen as a mean to explore a country's culture, because it represents the geography, history, and people of a country. Henderson (2009) writes in his study tourism in which food plays a primary or supporting role becomes popular and has good prospects for growth. Karim and Chi (2010) article found that significant positive relationships were found between food image and visit intentions.

Kristensen (2017) conducted a case study of Finnmark, Northern Norway, which detailed that general managers in the tourism industry, in Finnmark, view local food as important

symbols of the region. In addition, Kristensen (2017) found that food tourism is part of a community's identity and history. As described by Rand et al (2003), food tourism management and development is a means to preserve a destination's traditional-, agricultural-, natural- and historical- resources.

Copenhagen case study by Li (2016) recognized that food is most effective when combined with other branding tools in a destination branding strategy. One way to preserve the resources is to develop sustainable tourism. An example of this is found in Cornwall, South West England, where farming and fishing traditions have been strengthened by developing food tourism and promoting food tourism as a tourist attraction in this region (Everett and Aitchison, 2010).

Sengel et al (2015) mentioned eating is a physical need as well as a cultural and social activity. When tourists eat at a destination they not only satisfy their hunger but also experience the local culture and interact with their hosts. Tourists' demand for local food occurs however in different levels of intensity. Some tourists travel solely for gastronomy in the region, some see local food as a by-product of their cultural experiences, and some others rather familiar food when they travel. Therefore, there are differences in how tourists approach local food consumption. Sengel et al (2015) study conducted at various locations in the Old City district of Istanbul found various demographic and topographic factors on tourists' perceptions of local food. Berry (2014) indicated that there is growth and popularity of Punjabi Cuisine as a culinary tourism destination amongst domestic and international travellers.

Duttagupta (2013) research results indicated that the sample of foreign travellers' were satisfied with the culinary experiences in the India and recommended India for culinary tourism, in spite of the culinary challenges faced. The results also indicated that cuisine experience featured prominently as one of the most enjoyable aspects of their trip and that foreign travellers patronised Indian culinary establishments on a frequent basis.

Dhora and Dionizi (2014) concluded in their study that the restaurants in Shakodra City are integrating in their menus the local food because there is an increase in the demand for local produce.

Most of the researches worked on food tourism have indicated that food plays an important role in building the image of the destination. It enhances the economic development of the destination. Food tourism has grown considerably in past few years. The perception of the restaurants for food tourism has also been indicted by the researchers. Most of the researches have defined food tourism which includes visiting restaurants, food carts and food fairs, may be far or near all are part of food tourism. Food tourism is an inseparable part of overall tourism. Food tourism shows history, culture, agriculture of a particular place.

Keeping in mind the importance of food tourism this study has been taken up. This study will give an insight to the stakeholders of the food industry about the impact of the local food in attracting tourist to the destination. The restaurants, food street carts, local food vendors will be able to identify which age group people travel for food to their region so that customisation of the product may be done, if required, to suit their palate. Dining out is common among tourists and "food is believed to rank alongside climate, accommodation and scenery" in importance to tourists. A food experience that can sweep the tourist of their feet not only leaves them satiated but also makes them hungry to explore more. We often talk about the rich and diverse cultural heritage of our country but seldom have we realised

that the diversity in our cuisines also make our nation in every sense, “Incredible India”.

Objective of the present study is (a) to understand the role of local cuisine as a tourist attraction; (b) to understand the interest of different age groups in food tourism

## METHODOLOGY

The research design used for the study is co-relational quantitative design. Locale of the study is New Delhi, India. A sample size of 130 food tourists from different age group was taken. Random sampling technique was used for collection of data. Age brackets considered for the study were 21 years and below; 22 years to 34 years; 35 years to 44 years; 45 years to 54 years; 55 years to 64 years; and 65 years and over. The age range for demographic profile has been taken from American Marketing Association. Structured interview was conducted for the food tourist at “Bharat Parv-2018” organised by Ministry of Tourism, Government of India, at Red Fort, New Delhi. “Bharat Parv-2018” was organised from 26<sup>th</sup> January 2018 to 31<sup>st</sup> January 2018. The data collected was compiled and analysed using percentage, mean and standard deviation.

130 people were approached with questions pertaining to the study which included age of the respondent, gender, occupation and would they like to travel for food as primary objective, to what extent would they like to travel for experiencing local food and what kind of outlets they visit regularly for authentic local food. Location: Bharat Parv, Red Fort was chosen keeping in mind the visitors coming will be multicultural, of different religions, interested in culture (including food) of different regions and from varied economic background and mindset. Interview technique was used to collect data keeping in mind all the people visiting such food fair may or may not read and write. All the people approached responded enthusiastically so the response rate of the data collection was 100%.

Details of the demography of the respondents are presented in below tables. Table 1(a) shows the details of the age bracket of the respondent. Table 1(b) shows the gender details. Table 1(c) shows the occupation details.

**Table 1(a): Details of the Age Bracket**

Age Bracket	Frequency	Percentage
21 years and below	42	32%
22 years to 34 years	42	32%
35 years to 44 years	16	12%
45 years to 54 years	4	3%
55 years to 64 years	18	14%
65 years and above	8	7%

In the age bracket of 21 years and below and in between 22 years to 34 years are the highest respondents.

**Table 1(b): Gender Details**

Gender	Frequency	Percentage
Male	56	43 %
Female	74	57 %

Females had high percentage in the respondents.

**Table 1(c): Occupation Details**

Occupation	Frequency	Percentage
Service	30	23 %
Business/ Entrepreneur	10	8 %
Retired	14	11 %
Not Working/ Housewife	20	15 %
Student	56	43 %

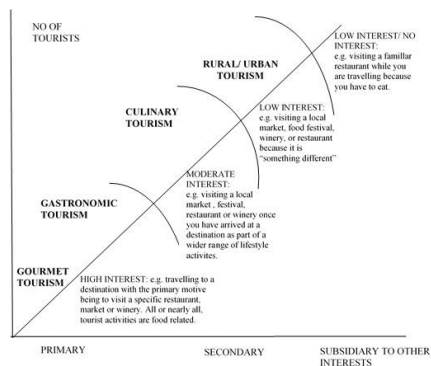
Most of the respondents as per occupation were students followed by people in service sector.

## FINDINGS AND DISCUSSION

The objective of the study were: (a) to understand the role of local cuisine as a tourist attraction; (b) to understand the interest of different age groups in food tourism

To achieve the results for the first objective question asked to the respondent was would they like to travel for food as primary objective where the respondent had to answer on the scale of 5 wherein 5 indicted that respondent will travel for food as primary objective and 1 indicated respondent do not travel for food at all. Extension to this question was if the respondents are willing to travel to what extent they may travel for food as prime motive- within city (nearby only), within city (far off places), to another city, to different states or internationally.

The question for achieving the first objective was based on the research of Hall et al, (2003), wherein they have mentioned that there may be 3 types of food tourist i.e. primary, secondary and subsidiary to other interests as it is mentioned in the fig 1.

**Figure 1: Source: Hall et al (2003)**

Findings for the above questions are mentioned below:

**Table 2: Findings for the First Objective**

Question	Scale	Frequency	Percentage	Mean	Standard Deviation
Would the respondent like to travel for food as primary objective?	5 (travels for food as primary objective i.e. primary food tourist)	28	21%	3.29	1.34
	4 (travels for food as one of the objectives of travel i.e. secondary tourist)	34	26%		
	3 (travels for other reasons but experiences local food i.e. Subsidiary to other interest )	36	28%		
	2 (does not travel for food but may consume local food i.e. low interest)	22	17%		
	1 (does not consume local food at all i.e no interest)	10	8%		

The findings for the first objective indicated that 28% of the respondents (which is highest) visit destinations for other reasons i.e. subsidiary to other interest, like to experience climatic condition, scenic beauty, religious purposes, visiting relatives and friends as primary objective and experience local food of that destination. This strongly indicates that food tourism in India is not main stream tourism but a supportive one. Whereas 26% of the respondents said that they do not primarily travel for food but local food is an important component while choosing destinations for travel. This indicates if an Indian traveller is planning a trip, he/she looks out for scope of consuming local food of that destination in his/her trip. 21% of the respondents travel for experiencing local food as their prime objective of travel. 17% of the respondents do not travel for local food and 10% of the respondents do not get involved in food tourism itself. The findings of the present study are in line with the results of Lee et al (2014), which states that members of Slow Food Organisation do not choose their destinations primary because of food despite their strong interest, but do undertake food related activities in their destination. Simkova & Holzner (2014) suggested in the study that the primary drivers for travelling are needs to escape from daily routine, workplace, but also social.

The results of the present study are also aligned with Enteleca Research and Consultancy, (2000) study which described the food market into 5 groups. Food tourists (6-8% of UK holiday takers and visitors), Seeking local food and drink were a particular reason for choosing their holiday destination. These people may choose destinations in order to have an opportunity of experiencing good food. (Many of them are more sophisticated in their knowledge and perceptions of foods but may not necessarily place particular emphasis on local foods. The results show they are more interested in 'good food' and 'good restaurants'.) Interested Purchasers (30-33% of UK holiday takers and visitors): This group believes that food in general can contribute to their enjoyment of their holiday and they are purchasing and/or eating local foods when the opportunity arises. These people, though they are not preplanning,

are often the most active purchasers of local foods. Un-reached (15-17% of UK holiday takers and visitors): This group believe that food and drink in general can contribute to their enjoyment of their holiday, and say that they are happy to try local food if they come across it, but at present they are not purchasing local foods. Un-engaged (22-24% of UK holiday takers and visitors): These people do not perceive food and drink as adding to the enjoyment of their holiday, but they are not negative towards sampling local foods. Laggards (28-17%) of UK holiday takers and visitors) say they have no interest in local food, and are unlikely to have purchased any during their holiday.

If the overall results are seen, the mean is 3.29 on the scale of 5 with the standard deviation of 1.34 that means more than average people in Delhi travel for experiencing local food.

For the second objective, i.e., to understand the interest of different age groups in food tourism findings are mentioned in table 3.

**Table 3: Findings for the Second Objective**

Age Bracket	Scale (Food Tourism as primary objective)	Frequency	Weighted Average Mean
21 years and below	5	18	4.19
	4	16	
	3	6	
	2	2	
	1	0	
22 years to 34 years	5	5	3.4
	4	14	
	3	16	
	2	7	
	1	0	
35 years to 44 years	5	2	3
	4	4	
	3	6	
	2	0	
	1	4	
45 years to 54 years	5	1	2.75
	4	0	
	3	0	
	2	3	
	1	0	

55 years to 64 years	5	2	2.6
	4	0	
	3	8	
	2	6	
	1	2	
65 years and above	5	0	1.5
	4	0	
	3	0	
	2	4	
	1	4	

The weighted average of the age bracket 21 years and below is highest, i.e., 4.19 on 5 rating scale, followed by age range of 22 years to 34 years to be 3.4; the next highest of the age range of 35 years to 44 years to be 3; whereas age range of 45 years to 54 years was 2.75; the weighted mean of age bracket was 2.6 and the lowest weighted mean was 1.5 which is for age group 65 years and above.

The finding indicates as the age group increases the inclination towards food tourism reduces. Statement by Moghadasian in an article that supports the result of this study is “And as we mature, it becomes harder to welcome new tastes.” There’s a phenomenon in nutrition we call programming,” If you get used to specific types of food or drink when young, then your brain will be programmed to accept the flavours, colours and other features of these foods.” If immigrants are over 35 or 40, he says, they will usually stick to their traditional cuisine, whereas children will adapt to the local food.”

The same results are seen in study of Buffa (2015) as the study mentions that most young tourists say they prefer local food, adapt as much as they can to the traditions and customs of the place in which they are holidaying.

## CONCLUSIONS

Food tourism is an integral part of tourism. Local food is an important element of food tourism. At present, the food tourism in India is not a primary motive of the tourism. As the study reveals, 28% (the highest percentage) of the tourists travel for other reasons but experiences local food where as 21% of the tourists travel primarily to experience local food. So focus on food tourism is important to increase the overall tourism in India but is supportive in nature and not the main stream of tourism. On the other hand, the young age group especially students are more active in food tourism. These findings are concurrent with the findings of the studies conducted by other scholars across various countries and regions. Food tourism is an increasing trend which can be harvested to promote local culture, heritage and history of a region.

For different stakeholders of the tourism industry, the Government or NGOs can come up with campaigns on local food at school level, to promote food tourism. This can help in strengthening the tourism base of our country. Inter-school Essay competitions, local food fairs, themes in annual day or founders day may be selected emphasising regional cuisines,



educational trips focusing on authentic local food may be planned for the school going children like Ontario did Eco School competition in 2013 in the name of Local Food Awareness and Action Campaign. This will help the children to understand the culture, heritage and food of our country making them the brand ambassadors of our rich cultural and culinary heritage. Thus, they will not only learn about the wide variety of regional cuisines in our nation, but will also be hungry to explore more and more options as they grow up.

The restaurants, eating joints or other outlets servings authentic local food should be promoted by giving relaxations in licences fee, marketing support in local newspapers and magazines, and likewise. More food festivals should be organised to promote the authentic local food of India. As mentioned in the annual report, 2016-17, some of the Food Festivals and promotions which were organised recently by the Ministry of Tourism, Government of India were: Navratra Food Festival, Shahi Gulnaar Festival and *Biryani & Shorba* Festival at Hotel Janpath, Biryani and Kebab Festival at Hotel Kalinga Ashok, Bhubaneswar and *Kebab & Sizzler* Promotion at Hotel Jammu Ashok, Jammu. More such food fairs like “Bharat Parv” may be organised not only in Delhi but also in other cities to make more and more people aware about the regional cuisines in India.

NASVI may be given further responsibility of carrying forward the food tourism to every nook and corner of the country by making authentic food available to all the sectors of society.

Not only food but local beverages, such as *Lassi*, *Chaas*, *Kanji*, *Jaljeera*, *Aam Panna*, also should be given an important place in attracting tourists. Temples and other places of worship may be used for spreading the knowledge of authentic local food. *Prasadam* given in the temples should be of the authentic local food product of that region. Also, the temple premises should have take away counters of packed local food. This may be introduced under the scheme PRASADH by MOT, GOI.

Under *Swadesh Darshan* scheme of MOT, food circuits may be introduced. For overall grading, destinations may be audited even on the facilities available for promoting authentic local food. At present, it is not in the checklist.

Local food products take away centres should be in easy to reach areas. Also, efforts should be made to showcase the local vegetation and agricultural regions to all tourists. This may be done by building the roads through the agricultural belts or orchards as has been done in various parts of Kerala.

The cost of food items should be under the control of the authorities of the region. It is quite an astonishing fact that the price of fishes and crabs in the back waters of Kerala is quite high although both products are available in abundance in the region.

Local Fruit and Vegetable festivals should be organised at various locations. The Government does organise Mango Festivals in the summer season and in a similar fashion can promote various other fruits and vegetables which are the signature products of a particular region.

As organised during *Bharat Parv*, Kitchen Studios may be arranged to showcase live cooking shows in public gatherings. This will not only promote regional cuisines, but will also allow the people to get their queries answered on the spot.

It is really heartening to see a large number of shows on television that are promoting food from various parts of the country. The Ministry of Tourism has taken a wonderful step to

promote “*Khichdi*” as the national dish of India. This not only shows the sensitivity of the Ministry towards a humble yet highly popular and diverse local food which is prepared in a large number of ways.

Going forward, research may also be carried out on origin of various popular items, their primary ingredients, methods of cooking and cooking medium used across different regions of the country. Studies can also be done on the USP of various regional cuisines that make them stand out from others and attracts the connoisseurs towards them.

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<b>3</b>
<b>CHAPTER</b>

## **Gastronomy Tourism and Promotion of Local Cuisine: A Case Study of Moplah Cuisine in Kerala**

**Aashish Gupta\*, Bhavana P\*\* & Dr. Lomte D M\*\*\***

### **ABSTRACT**

*Indian cuisine in true sense is an amalgamation of the cultures, traditions and influences of different ethnic communities absorbed and imbibed over the centuries. Indians consider food as an auspicious entity to preserve culture and connect people other than satisfying hunger and perform body functions. The traditional Moplah cuisine from north Kerala has its own distinct flavor and is a popular pick especially during the month of 'Ramzan'. 'Moplahs' are the Malayalam speaking 'Muslims'; in Kerala who stayed back after the invasion of the Arab rulers. The purpose of this research is to find out the popularity of Moplah cuisine and some of the signature dishes of that cuisine; so that it can be promoted and culinary heritage of the region can be preserved. Much of the Moplah cuisine still remains unexplored; researchers have not come across much literature. "Moplah cooking is light on stomach and quite different from the Muslim food compared to other places in India like Hyderabad, Kashmir etc. which use more oil and are heavy on spices." Restricted use of spices and the absence of ginger garlic paste as well as soups and starters besides copious amounts of coconut oil and coconut milk are the hallmark. The researchers have used percentage and cross-tabulation to analyze the data collected; data have been analyzed by using SPSS version 16.0 and graphs have been generated using Microsoft Excel version 2007. Percentage and frequency has been calculated to test null hypothesis. Null hypothesis got rejected and alternative hypothesis got accepted. The results of this study indicate that; the cuisine is not popular among people. During study researchers have realized that the people are curious to know about the cuisine. Study has recommended that stakeholders have to take initiatives to promote and preserve local culinary heritage.*

**Keywords:** *Gastronomic Cuisine, Moplah Cuisine, Kerala, Promotion, Culinary Heritage, etc.*

### **INTRODUCTION**

The cuisine of Malabar also referred as 'MAPPILA CUISINE' or popularly known as 'MOPLAH CUISINE', boasts of a distinct flavor and taste that has been influenced by the Arabs as well as by the locally available spices, products and culinary traditions. Traditional Malabar cuisine

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is spicy, characterized by the regular use of spices like black pepper, clove, cardamom, and almost always, cooked in fragrant coconut oil.

The Mappila community of Kerala owes a lot to the spice trade that had been happening in the Malabar region since 1000 BC. The famed Tellicherry black pepper that brought seafarers from as far as Rome changed the culinary landscape of not just the traders who took the spices to faraway lands and introduced pepper into the diet of Europeans, but also of the local communities. Drawing from the Portuguese, Dutch, English and most heavily, Arab influences, Mappila food is the best sort of amalgamation of local and borrowed food traditions.

The bare bones of Mappila cooking rest on the choice of spices used in the various *aanams* (coconut milk-based curries), *kootans* (yoghurt-based curries) and desserts. Red chili, cardamom and cloves take center stage in this cuisine. Other commonly used flavorings are ginger, curry leaves, and coconut. Tamarind, and in some cases, green mango are used as souring agents. Ironically enough, the Tellicherry pepper that was so instrumental in shaping the history of Mappila cuisine, features very rarely in the food (NDTV, 2016)!

## ORIGIN

It started actually from the 7th AD when the Arabs came in to the 1500 when Vasco-Da-Gama came to Kerala, and they amalgamated and it is still evolving in the 21<sup>st</sup> century.

The Mappila community originated primarily as a result of the pre and post-Islamic Arab contacts with Kerala, which was fundamentally based upon commerce. As per tradition, Islam reached Malabar Coast, of which the state is a part of, as early as the 7th century AD. The uninterrupted associations of the Mappilas with the merchants from the Middle East have created a profound impact on their life, customs and culture. This has resulted in the formation of a unique tradition - although within the large spectrum of Malayali culture - in literature, art, and music (WIKIPEDIA, 2012).

It was with the advent of Islam that the Arabs became a prominent cultural race in the world. The Arab merchants and traders now became the carriers of the new religion and they propagated it wherever they want. When the Prophet Muhammad started his Islam mission in Arabia the Arab traders spread it wherever they went and through them it reached in Malabar also (RATATTANI, Hussain, 2007).

## LITERATURE

Researchers have not come across much literature on Moplah cuisine. The available information only highlights how the Kerala food got influence of Portuguese, Arab traders and Vasco-Da-Gama. The researchers have not found many articles which explain the emergence of Moplah cuisine. We have gone through Kerala tourism websites, Food Blogs, Wikipedia, certain books, TV shows and YouTube channels. The researchers have made best use of the resources available.

## CULINARY TOURISM AS A MARKETING TOOL

A destination can be marketed with the help of local cuisine as marketing tool. As Hjalager and Richards's state, "gastronomy or culinary tourism can be an important marketing tool to promote a destination (HJALAGER, A., Richards, G, 2002)". For example, 'A Taste of Scotland' is marketing programs that repositioning Scotland by providing traditional food

for tourists with Scottish food (HJALAGER, A., Richards, G, 2002). Many marketing organization have realized that travelers are seeking for authentic local and regional food which motivates them to travel and start to use gastronomy or culinary to market themselves (HJALAGER, A., Richards, G, 2002). Wolf has defined culinary tourism fairly different where it is “the development and promotion of prepared food/ drink as an attraction for visitors” (WOLF, E., 2006). There are many ways to promote an appealing destination with food such as packaging, product development, positioning and the promotion of the attraction (DU RAND, G. E., & Heath, E., 2006). Moreover, researchers find that image of food use as a tool to market a destination can be effective.

Prof. F R Allchin, a UNESCO consultant visited India in 1969 and expressed his views about cuisine of India. *“In our view an entirely new orientation is needed, and Indians should begin to take a justifiable pride in their own cuisine. (ALLCHIN, F R, 1969)”*He specially emphasized on the promotion of the local cuisine as cultural heritage and advised Indian community to take justifiable pride in their own cuisine. He also advised to make rule and put compulsion on hoteliers to make available local cuisine as an option to the western food in hygienic manner. So tourist can consume local food without fear. Spicy food should be available as per the convenience of the foreign tourist

#### SIGNATURE DISHES

- 1) **Alisa:** Alisa is actually wheat and chicken, its porridge. It is traditionally eaten with ghee and sugar. People don't know and find it hard to believe how a savory dish can be eaten with sugar and ghee. Different people eat things differently and it is all unexplored.
- 2) **Muttamaala:** It is made by using duck egg (it is much creamier) and egg white. The base is like a cake made of egg white. It is originally a Portuguese dish which is adapted by the Moplah cuisine and is one of their most popular dishes.
- 3) **Thalassery Dum Biryani:** Made of *jeerakasala rice* (also known as *wayanadan kaima*), a short and thin variety, Thalassery biryani could include fish, mutton or chicken. While cooking heat is applied on both the top and bottom.
- 4) **Unnakkaya:** Egg, Grated coconut, Nuts and Raisins stuffed inside smashed banana and deep fried. Oval shaped and golden brown in color, it is a must-have for many to break their fast during Ramzan.
- 5) **Pazham Nirachattu:** Banana filled with dry fruits and coated with white flour and deep fried.
- 6) **Ari Pidi:** The intense taste of grated coconut is a unique characteristic of *Ari Pidi* recipes. *Ari Pidi* is a recipe comprising of a number of small rice dumplings in a thick sauce made of grated coconut and rice flour.
- 7) **Chatti Pathiri:** *Chatti Pathiri* is a layered pastry made in North Malabar and Malabar region, of Kerala, India. It is made in both sweet and savoury variations.
- 8) **Irachi Ada:** *Irachi Ada* also known as *Irachi Pathiri*, is one of the popular and tasty crescent shaped Malabar snacks, which is prepared during Iftar and also served as an evening snack.

- 9) *Paal Choru*: It is a simple dish; rice is simmered in milk along with jaggery, cardamom powder and ghee.
- 10) *Meen Pathiri*: One of the favorite dishes from Malabar cuisine, it is a rice pancake stuffed with fish and steamed.
- 11) *Thari Kaachiyathu*: It is a sweet dish made with a mixture of milk, sugar, cardamom powder and salt to start with and then boiled semolina is added. It is served hot garnished with shallots and cashew nuts browned in ghee.
- 12) *Kums*: It is a fatless cake to be simple. The ingredients used include eggs, caster sugar, green cardamoms and plain flour.
- 13) *Kaipola*: It is a unique dish which is also known as banana cake or steamed plantain cake. It is one of the most authentic Malabar dishes. The dish is a sweet combination of egg and banana.
- 14) *Kallummakkaya Nirachathu*: Originally it is famous as a snack, in which mussels are cleaned and split opened; marinated with Kashmiri chili powder and turmeric. It is stuffed with dough which consists of grated coconut, fennel seeds, chopped onions which made into a fine paste and are added in a batter of rice flour and salt which is then steamed. The shell is removed and the steamed mussel is dipped in a batter of Kashmiri chili powder, salt, turmeric and deep fried till golden brown.
- 15) *Ghee Rice (Nei Choru)*: Ghee Rice is an aromatic and delicious one pot rice recipe made with ghee and spices. Due to use of cashew nuts and ghee it is rich in taste.
- 16) *Thari Unda*: It is a simple dish made with roasted semolina, and then sugar, coconut, raisins and ghee are added. Put off the flame and make into lime sized balls.
- 17) *Ney Pathiri*: *Ney Pathiri* or *Neypathal* is a deep fried *Pathiri* or deep fried rice roti and is a very common breakfast item in Malabar area.
- 18) *Panineer Petti*: It is a crepe stuffed with sweetened mixture. It is a usual item on Iftar Table.

## RESEARCH QUESTION

After understanding the importance of Moplah cuisine and its origin, we would like to know:

- a) Whether people are aware about Moplah cuisine?
- b) Are people interested to know about Moplah cuisine?

## OBJECTIVE

To find the popularity of Moplah cuisine among people.

## HYPOTHESIS

Percentage and frequency has been calculated to test null hypothesis. Null hypothesis got rejected and alternative hypothesis got accepted. The results of this study indicate that; the cuisine is not popular among people.



## RESEARCH METHODS

### QUESTIONNAIRE DESIGN

The tool used to conduct survey was a self designed questionnaire which started by enquiring people if they have tasted any Moplah dishes and ended with if they are interested to know about the Moplah cuisine.

### SCALE

Yes, no questions are used to understand the popularity of Moplah cuisine in India.

1=Yes

2=No

### SAMPLING

A pilot study of about 5 questionnaires was conducted and appropriate changes were made accordingly. The study conducted was across sectional study of the young students studying BSc (Culinary Arts) and BSc (Hotel and Hospitality Administration) at Indian Culinary Institute, Tirupati and State Institute of Hotel Management, Tirupati respectively. Convenience sampling method is used to select the sample, as no financial support was available to conduct the study. Researchers have used their own resources. The sample size is 40 (approx.), considered for study. Reason behind choosing these students as respondents, is that these youngsters are associated with food in their studies and are future food professionals; were conveniently available for the response.

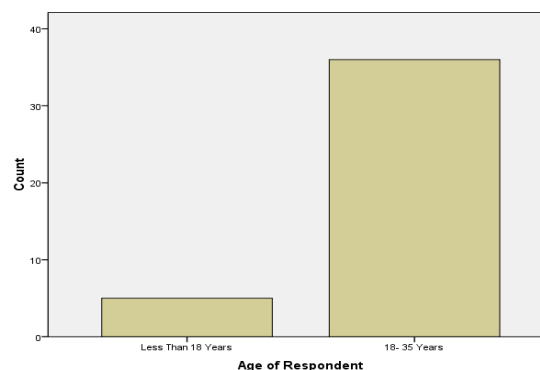
### DATA AND STATISTICAL ANALYSIS

Data collected was analyzed using SPSS version 16.0 and graphs were generated using Microsoft Excel version 2007.

### DESCRIPTIVE STATISTICS

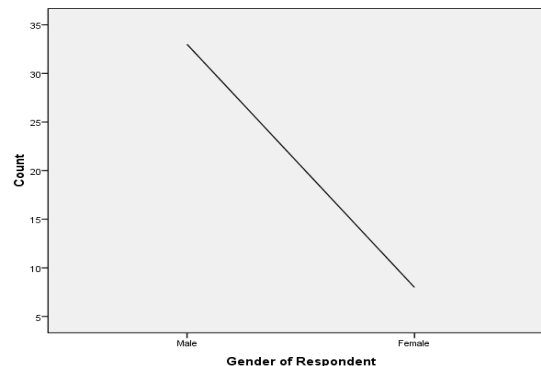
#### Age & Gender

Out of 41 respondents, all have replied on the age. 87.58% of the respondents are between the ages of 18 to 35 years, while 17.2% of the respondents are below 18 years of age. That means majority of the respondents are youngsters.



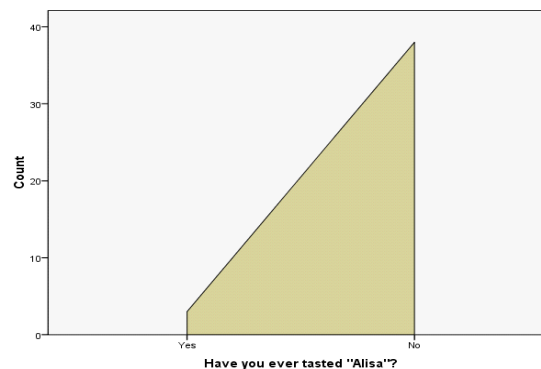
### Gender of Respondent

Out of 41 respondents all have responded on age, 33 are male and 8 are female which means 80.5% of the respondents are male and 19.5% of the respondents are female. Though female representation is comparatively less than men, but here equal representation is not required.



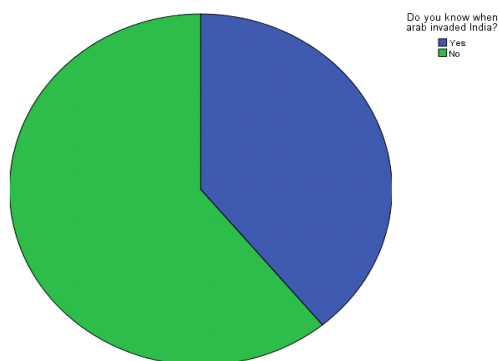
### Have you ever tasted *Alisa*?

*Alisa* is a savoury which is served as a sweet. It came to India along with the Arabs in 1500 B.C. From the graphs we can observe that only 3 respondents i.e. 7.3% of the 41 respondents have tasted this dish. We should promote it so that people may come to know what it is, as having savoury which is sweet in taste is not something we find easily. As India is very diverse in its culture, we should exchange our traditions and habits so that people can enjoy what originally was not a part of their routine, which can be good, just for a change.



### Do you know when Arabs invaded India?

As we can see from the below graph that only 16 out of 41 i.e. 39% of the total respondents are aware of the invasion of the Arab rulers. This question is lesser related to cuisine when compared to history or general knowledge as a subject. This should be a part of General Knowledge or History at basic level, not only this but all such topics should be included.



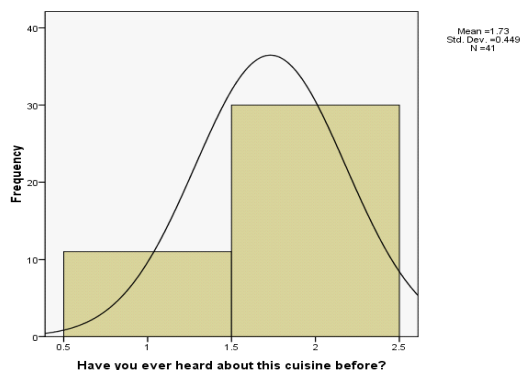
### Have you heard about this cuisine before?

As majority of the respondents are youngsters we can observe that there is an urgent need of promotion of local cuisines. As the analysis was done among culinary arts students and hotel management students i.e. they have food production as a part of their curriculum. When the people of our country who deal in food production are unaware about this, then how the people from other field can be known about this?

At least some promotion of different-different cuisines should be done by the state governments to promote their culture and habits. If some initiative is taken in this regard it will help students get a wider vision of Indian cuisine, Hence will justify the slogan Incredible India. Nowadays the technology has become so advance that anything can be transferred from one place to another within fraction of seconds.

Some online classes should be held or some demonstrations should be conducted to promote the local cuisines.

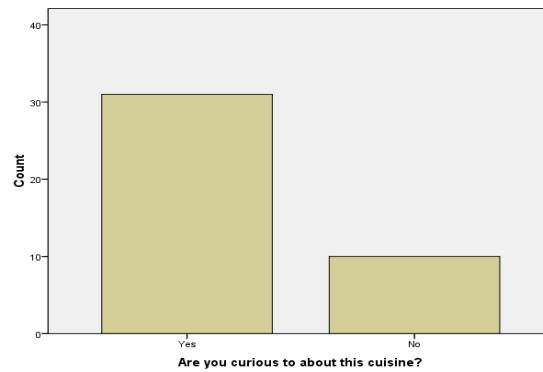
As we can see from the table that out of 41 respondents, only 11 people have heard about this cuisine earlier i.e. only 26.8% people are aware. 30 respondents were unaware about this cuisine i.e. 73.2% were unaware about this cuisine. This shows that there is urgent need of promotion of local cuisines in order to preserve these old cultural heritages.



### Are you curious to know about this cuisine?

As we can see from the below graph that only 31 respondents out of total respondents (41) i.e. 75.6% of the total respondents are actually interested in knowing about the cuisine. As

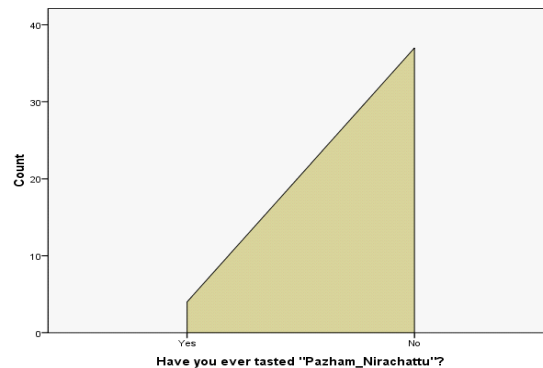
majority of the respondents in our survey are youngsters we can see that a big part of them i.e.  $3/4^{\text{th}}$  of them wants to explore the cuisine and know about it. This shows the interest of people in learning about something new and unheard. If people are given some counseling on the local cuisines, they may be able to learn about new dishes and know the importance of preserving food heritage.



#### Have you heard about the dish 'Pazham Nirachattu'?

As discussed above in the signature dishes of 'Moplah Cuisine', *Pazham Nirachattu* is a dish made using banana which is filled with dry fruits and coated with white flour then deep fried.

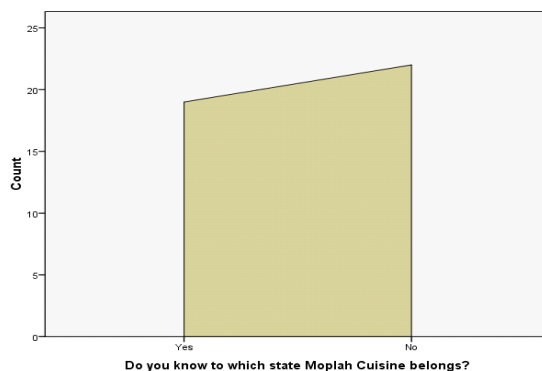
We have to start by taking a banana which may be ripe or semi-ripe, depending on the consumer's choice/preference, then the banana is slit from the middle and filled stuffed with grated coconut, nuts and eggs, then it is deep fried in ghee.



#### Do you know to which state 'Moplah Cuisine' belongs?

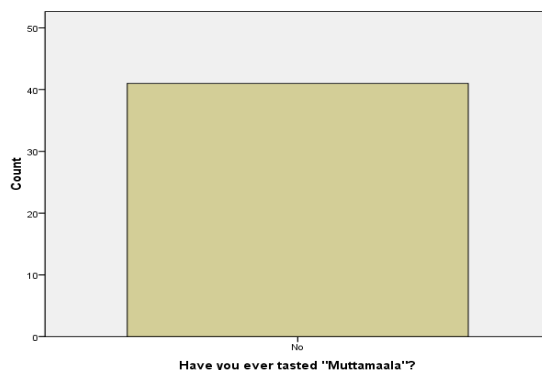
The word 'Moplah' itself means the Malayalam speaking Muslims of Kerala. Moplah cuisine of Kerala still remains one of the undiscovered and unexplored cuisines of Kerala. Food being an important aspect of any food culture, strong Arabic influences has seeped into the community's cuisine too. But this food also draws inspiration from trading groups that came to these shores later- the Portuguese, the Dutch, the French, and of course, the dear old Brits- producing a perfect blend of local ingredients with borrowed concepts. As we

can see in the below graph that only 46.3%; of the total respondents are aware about the state to which Moplah cuisine belongs.



### Have you ever tasted 'Muttamaala'?

As mentioned above in the signature dishes of Kerala's Moplah cuisine *Muttamaala* is prepared by using duck egg (as it is much creamier) and egg white, and then it is deep fried. The base is like a cake made of egg white. It is originally a Portuguese dish which is adapted by the Moplah cuisine and is one of their most popular dishes. But as we can see from the below graph, that none of the respondents are aware about *Muttamala*. It may also be possible that the respondents may have not even heard about *Muttamala*, but as we asked their opinion about tasting, so an accurate conclusion cannot be drawn on what we have not asked. But this can definitely work as an eye opener in showing the popularity of the Moplah Cuisine.



### Cross-Tabulation Summary

#### Cross-Tabulation Chart 1:

From the below cross-tabulation chart we can draw a relation between 'Curiosity and Awareness'. We can observe that people are curious to know about the cuisine especially those who have not heard about the cuisine; those people are curious. A direct relation can be seen between awareness and curiosity. It will be of great help if the curiosity of respondents is met with a solution.

**Are you curious to about this cuisine? \* Have you ever heard about this cuisine before?**  
**Cross tabulation**

Count				
		Have you ever heard about this cuisine before?		Total
		Yes	No	
Are you curious to about this cuisine?	Yes	10	21	31
	No	1	9	10
Total		11	30	41

### Cross-Tabulation Chart 2

From the below chart we can draw a relation between 'Do you know to which state Moplah cuisine belongs?' and 'Do you know the meaning of the word "Moplah"?'. We can observe that people are aware more about the state to which Moplah cuisine belongs rather than the meaning of the word Moplah! Respondents have only heard about the Moplah cuisine but never knew the meaning of word 'Moplah' or the dishes for which this cuisine is known for. If people know the meaning of word 'Moplah' then, there is a possibility that they may know about its history as well. But vice-versa may not be a possibility. If promotion is done about the dishes of Moplah cuisine rather than explaining the origin or the history of this cuisine; it will be easy for people to learn about this cuisine.

**Do you know to which state Moplah Cuisine belongs? \* Do you know the meaning of word "Moplah"? Cross Tabulation**

Count				
		Do you know the meaning of word "Moplah"?		Total
		Yes	No	
Do you know to which state Moplah Cuisine belongs?	Yes	7	12	19
	No	2	20	22
		9	32	41

### CONCLUSION

With above descriptive analysis researchers have reached the conclusion that, as per the youngsters at Indian Culinary Institute and State Institute of Hotel Management & Catering Technology & Applied Nutrition; Most of the respondents are unaware of the cuisine and its history along with its dishes. Even though it has Arabic influence which is evident in some of its dishes and flavors. Moplah style of cooking also has the traces of Yemini flavors. It is Muslim food but unlike the Muglhai cuisines of India from Lucknow, Kashmir and even Delhi, they are less heavy and not rich in gravies & fat. It uses chili powder, coriander powder, turmeric, cumin and a few whole spices. This cuisine is a popular pick in the month of Ramzan and the true colors of the food come out during this holy month with the aroma

of ghee and coconut oil wafting through the by-lanes of any town, but the popularity of this cuisine is only restricted to the Moplah kitchens (INDIAVIVID). Malabar cuisine is in slim volume. Calicut (Kozhikode) is the hub of Moplah cuisine. Better results can be retrieved if the government sponsors some programmes in the interest of preserving unexplored culinary heritages like Moplah cuisine.

### RECOMMENDATION

- 1) Study has recommended that stakeholders have to take initiatives to promote and preserve local culinary heritage.
- 2) If promotion of local cuisine is not done, it may soon be categorized under 'Dying Culinary Heritage'.
- 3) Media houses can contribute in publishing and advertising many articles regarding Moplah cuisine.

### LIMITATIONS

- 1) The researchers have collected data only from two institutes i.e. Indian Culinary Institute, Tirupati and State Institute of Hotel Management & Catering Technology & Applied Nutrition, Tirupati; insufficient sample size and convenience sample procedure, results of this study cannot be generalized for researches done on unexplored and Tribal cuisines of India.
- 2) The sample is collected from institutes where students are doing their graduation so; the age is only ranging from 18-25 years.
- 3) Though the students in these institutes are from different states and cover most of the India, still the response of these students cannot be treated 100% accurate as a base for research.
- 4) Researchers have not come across much literature. Researchers have collected important information in traces from food and travel blogs, websites and some books which are mentioned in the references respectively.
- 5) The work has been done keeping in mind the time constraint, but researchers have made the best use of the available resources.
- 6) The religion of the respondent has not been taken into consideration; there is a possibility that Muslims living in other regions of India may be aware about this cuisine.

### SCOPE FOR FUTURE RESEARCH

There is demand from the respondents that the cuisine should be promoted as there is scope for popularity worldwide. This kind of study can be conducted at prominent places in Kerala to start with; gender, age and religion can also be taken into consideration. Moplah cuisine has Ethnic values. This cuisine was brought to India by the Arabs and the Yeminis, but has not gained any popularity and a major part is yet to be explored. It can also be promoted in Food Fests, Food Exhibitions, through culinary books, Food Blogs & state website. As Arabs came from Middle East countries, it can also be promoted at international level. The cuisine can be included in textbooks, magazines and some articles can be given time to time in newspapers; along with some advertisements through Media.

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<h1>4</h1>
CHAPTER

## **An Explanatory Study of Gastronomic Tourism of Kashmir: Issues and Challenges with Special Reference to the Tourists Visiting the State**

Ashwani Kachroo\* & Vinod Kumar\*\*

### **ABSTRACT**

*Gastronomic tourism, Food Tourism, or Culinary tourism applies to tourists and visitors who plan their trips partially or totally in order to taste the cuisine of the place or to carry out activities related to gastronomy. If people travel to various destinations due to local food and beverages as main motivating factor for travel, they will form part of Gastronomic tourism.*

*Food tourism may be defined as “visits to food producers, food festivals, restaurants and specific locations where the taste of food and/or experience of the specificity of typical food products are the main reasons for the trip” (Hall & Mitchell, 2001). The International Culinary Tourism Association (ICTA) defines culinary tourism as “the pursuit of unique and memorable eating and drinking experiences”*

*Vale of Kashmir has been known for its natural beauty, delightfully planned gardens, Lakes, Temples, Caves; the food in Kashmir is heavenly as well. Kashmiri cooking developed through the ages as two schools of culinary thoughts & craftsmanship-Kashmiri Pandit cuisine and the Kashmiri Muslim cuisine. Kashmiri Cooks are known as Wazwan, these cooks are descendants of the master chefs who migrated from Samarkand and parts of Central Asia at the beginning of the 15th century and formed a vital part of the followers that came to Kashmir during the reign of Timur the lame.*

*This research paper will investigate the contribution and influence of various rulers of this princely state i.e. Afghans, Persians, Mughals, Arabs, Dogras etc in formulating various mouth watering delicacies, which were world over recognized as parts of Kashmiri cuisine by food experts and gourmets. The paper will conclude with exploring the present day scenario of popularity of various gastronomic delights of this cuisine through guest feedback.*

**Keywords:** *Gastronomic Tourism, Culinary Tourism, Cuisine, Kashmiri Cooking, Issues and Challenges.*

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## INTRODUCTION

Gastronomic tourism is not a new phenomenon; it existed during the early days of human existence as humans searched for food to survive. This concept is growing since time immortal due to the fact that human beings are not stable with their food needs. Food is a basic need for any human being to survive in life and thus travelling in search of food both quantity and quality needs to be explored, modified and further developed. Food culture depends upon the geographical and climatic condition of that area. Food is related to the mind and soul of human beings. A famous proverb states that healthy mind resides in a healthy body, and for that food plays a vital role.

"In Indian gastronomy, emphasis is laid on senses which we can term as 'Gastro- semantics; our food is deeply rooted in the five elements, the five senses, the three strands, the three humours, the six savours and the nine feelings. "The touch is a great sense to have which enables us to feel the texture and temperature the food. Eating with fingers creates sensational and emotional references in the brain". (Gill, 2017) Founder President. IFCA

In Modern era most of the developed country have their cuisine and food style for day to day life and requirement for better taste and nutrition. People interested in travelling for gastronomic motivations were increasing gradually (Bessiere, 1998) "Culinary Tourism" was a term first suggested in 1998 (Long, 2003) Culinary or food tourism is defined as the pursuit of unique and memorable eating and drinking experiences (WFTA, 2013). Culinary tourism, also referred to as gastronomic or wine and food tourism, is a niche area of tourism studies that has grown rapidly in recent years in terms of tourism research and education (Hjalager & Richards, 2002).

## LITERATURE REVIEW

The French term "Gastronomy" can be traced back to the nineteenth century where it was described as the "enjoyment of food and drink at the very best" (Berchoux, 1804) Food has always been a basic necessity from the time immemorial. As stated by (Scarpoarto, 2002)" (Au & Law, 2002) stated that food tourism signify that the three major aspects around which the tourist's interest revolves are the destination to which people travel, the nearby place of interest and the local delicacies.

(Corigliano, 2002) argued that each destination has different level of attraction that can draw tourist from different countries; hence the relationship between food and tourism cannot be overlooked. Food reflects the culture and lifestyle of a region hence plays a key role in attracting tourists, which is the major reason behind the growth of food and wine tourism in France.

(Quan & Wang, 2004) developed a conceptual model of the tourist experience by describing the experiential components while identifying food consumption as either a peak experience or supporting experience. Focusing on the experiential marketing in regards to hospitality and tourism operation.

(Keng, Huang & Zheng, 2007) Perceived playfulness is clarified as an inner experience pursuing an intrinsic enjoyment to escape from routine by engaging activities (e.g., entertainment, escaping from routines, instant gratification).

(Namkung & Jang, 2008) identified two more that influence dining satisfaction. These two are atmosphere (spatial layout, interior design, and music) and services (promised service, willingness to help, and competency). In their studies, “appealing food presentation, tasty food, spatial seating arrangement, fascinating interior design, pleasing background music, reliable service, responsive service, and competent employees” were identified as important attributes in contributing to diners’ high satisfaction. Further, in a recent research of food attributes it was observed that, the satisfaction level of local and regional food varies depending on diverse food attributes.

(Jang, Ha & Silkes, 2009) examined and compared the attributes of six types of Asian foods, namely Chinese, Indian, Japanese, Korean, Thai, and Vietnamese for American customers. They found that taste, edibility, and quality are ranked as the top three among Asian food attributes overall, and that Japanese food was most highly rated among the six types of Asian foods. Food-related attributes have been known as critical factors influencing dining preferences, but other factors also should be identified in further examination of dining satisfaction. In addition to food-related attributes (including presentation, taste, and freshness).

(Jang, Ha, & Silkes, 2009) by incorporating perceived value - in particular, the concept of experiential value in studying the Japanese restaurants’ dining popularity and diners’ satisfaction - this particular study proposes to extend previous studies. Perceived value is as an important concept to understand customers’ satisfaction in the service industry, and significantly influences customers’ purchase decision-making

(Ha & Jang, 2010) This study adopts four dimensions of the experiential value, proposed and tested by other researchers.

(Horng & Tsai, 2012) developed a strategic framework for culinary tourism, which includes four dimensions (i.e., resources, capabilities, strategy, and education). This framework is used to help destinations improve culinary.

(Tewari, Jatashankar R & Dixit, Manoj, 2014) This study find out the cuisine of Awadh is a fusion of Persian, Mughal and local cuisine of Awadh. It is a mix of Vegetarian and Non-vegetarian dishes. The *bawarchis* (Cooks) and *rakabdars* (Senior Cooks) of *Awadh* evolved the Cuisine of *Awadh* to highest level of perfection in cooking style and garnishing the cooked food.

The study revealed that most of the respondents were nu-aware about the various dishes of *Awadhi* cuisine and at the same time it was also found that the dishes they have tasted in city were acceptable to them. The vendors of *Awadhi* cuisine should take care about the aspect hygiene in preparation of the food so that the tourist feels free to consume the tasty dishes of *Awadhi* cuisine without hesitation on grounds of their health concerns.

## OBJECTIVES OF THE PRESENT PAPER

The present paper embraces the following objectives:

1. To investigate the contribution and influence of various rulers of this princely state on formulating various delicacies of this cuisine.
2. To analyze the popularity of various gastronomic delights of this cuisine among the travelers to this state through their feedback.

3. To identify various issues and challenges in gastronomic tourism with special reference to Kashmiri Cuisine.

## METHODOLOGY AND APPROACH

The paper is primarily based on secondary data collected from travel portal- trip advisor. This study is partly descriptive and partly exploratory. There have been many studies around culinary tourism and corresponding literature is available for different domains. The secondary sources include books, journals, electronic journals, encyclopedias, newspaper related websites research articles Books, Magazines, UNWTO Report, Report of Ministry of Tourism, Report of World Travel and Tourism Council.

## SAMPLING PLAN

To check the popularity of the Kashmiri Cuisine the guest feedback as available on the Travel Portal-Trip advisor was retrieved on 1<sup>st</sup> Feb, 2018. We selected specialty four food outlets serving Kashmir food in Srinagar. Sampling Size- includes 686 tourists.

## LIMITATIONS & SCOPE OF THE PRESENT RESEARCH PAPER

1. This research study is only limited to Kashmir and its reliability in case of food tourism available in the state
2. This Present research paper is based on Primary data and secondary data, which may not be completely reliable.

## HISTORICAL BACKGROUND OF KASHMIRI CUISINE

Most of us are aware & has been fascinated by the natural beauty, fountains, lakes, temples, caves of this northern Indian place; the food in Kashmir is heavenly as well. Kashmir has been influenced by Chinese, Indian, Central Asian and Persian civilizations and cultures. Kashmir is said to have close cultural relations with present day China, Tibet, Central Asian cities, Afghanistan and Iran. (Sheikh & Shabina, 2011)

## GASTRONOMICAL OVERVIEWS OF KASHMIRI CUISINE

Kashmiri's are rice eaters. Rice was, as now, the staple food of Kashmiri's in ancient times. (Banzai, 1994) In past, perhaps the most popular items of the Kashmiri cuisine were meat and rice. (Kaw, 2004) Since Kashmiri's consume meat voraciously and statistics reveals that on an average 3.5 million sheep and goat are slaughtered annually for consumption, the skin can be utilized for production. ( Gulzar & Sumab, 2009)

Kashmiri cooking developed through the ages as two schools of culinary thoughts & craftsmanship- Kashmiri Pandit cooking and the Kashmiri Muslim cuisine. The basic difference between the two was that the Hindus used '*heeng*' (asafoetida) and curd to flavour their food while the Muslims used onions and garlic. The liberal use of spices like cinnamon, cardamom (both black and green) and cloves adds warmth and comfort to its curries. Pungent feature of food is due to use of mustard oil. The fragrance of saffron and *saunf* (Aniseed) powder sets kashmiri meals apart. The red chilies of this place are famous in the world for its lively colour and less pungent character. There are significant differences in preparation

between the Hindu and Muslim dishes in Kashmir: Muslims use *praan*, a local shallot tasting of garlic, and petals of *maval*, the Cockscomb flower, for colouring (and for its supposed “cooling” effect); Hindus do not use *praan*, onion or garlic but add yogurt to give additional body and flavour. (Punjabi, 1995).

*Kashmiri Pandit* cuisine evolved in the valley several centuries ago and in the course of time adopted some of the delectable elements of Mughal cuisine, thus enriched and acquired a distinct personality of its own. Though Brahmins, *Kashmiri Pandits* have generally been great meat eaters. (Dar 2000) Curd plays an important part in the cuisine. No meat delicacy, except certain kebabs, is cooked without curd. Even in vegetarian dishes, it is often added.

Kashmiri muslim cuisine is a gold mine of gourmet cooking to explore. The origin of the Kashmir’s ethnic/heritage cuisine-Wazwan dates back to the 14th century when the Mongol ruler Timur invaded India in 1348 during the reign of Nasiuddin Muhammad of the Tughlaq dynasty, who brought skilled persons of various professions including cooks from Samarkand to Kashmir (Ahmad M & Masoodi, 2012)

The Kashmiri dishes reflect Persian (Iran), Turkish, Arabic, and Central Asian influences. The origin of kebab is from Arabic, *Korma* from Turkish, and *rogan josh*, *Yakhni*, *Aab gosh*, *rista* and *goshtaba* from Persia. (Sheikh & Shabina, 2011) Various spices are used for the preparation and processing of wazwan like saunth (dried ginger), *dalchini* (cinnamon), *elaichi* (cardamom), *laung* (cloves), *badyan* (fennel), etc. The spices used in its preparation give special taste and aroma to the dishes.

As in days of old, the traditional Kashmiri muslim banquet known as Wazwaan is a feast fit for kings. The Wazwaan consists of 15-36 dishes of various varieties of meat. Many of the delicacies are cooked through the night under the expert supervision of the *Vasta Waza* (Head Chef). The credit for popularizing wazwan dishes goes to Persian and Sanskrit immigrants. The origin of term has also been derived from a Persian ‘*ashpaaz*’ that means a special cook and with the passage of time the term became ‘*waza*’. The basic prerequisite of a wazwan is that freshly slaughtered meat is used for its preparation. After acquiring the meat, the waza sorts it out for the different types of dishes e.g., ribcage is used to make *tabakh maaz* while as boneless meat is grinded and is used for preparation of *kebab*, *rista* and *goshtaba*, Meat with bones for *Roganjosh*, *Aab Gosh*, etc. A number of dishes are prepared in wazwan among them seven important meat based are *kebab*, *tabak maaz*, *aab gosh*, *rogan josh*, *nate-yakhni*, *rista* and *goshtaba*. (Ahmad M & Masoodi, 2012)

Wazwan dishes are traditionally prepared in copper utensils named in Kashmiri ‘*Degs*’ over simmering fires of wood, preferably obtained from old fruit trees. In Kashmir, Wazwan is not only a ritual, but a ceremony. Guests are seated in groups of 4 on a ‘*Dastarkhwaan*’ - the traditional cushioned seating on the floor- and share the meal on a large metal plate called a ‘*Trami*’. A ‘*tashtnaari*’ or washbasin is taken around by attendants so that the guest can wash their hands. The only way to eat is with your fingers. The *trami* arrives heaped with rice and the first few dishes. A typical *trami* consists of a pile of rice with *seekh kebabs*, *methi qorma*, and *tabak maaz* and *trami murgh*. Curd and chutney are served in small earthenware pots.

Table 1: List of Famous dishes of Kashmiri Cuisine

Non Vegetarian Dishes	Vegetarian Dishes
<ul style="list-style-type: none"> <li>• <i>Rogan Josh</i></li> <li>• <i>Tabak Maaz / Qabargaah</i></li> <li>• <i>Harissa</i></li> <li>• <i>Gushtaba</i></li> <li>• <i>Rista</i></li> <li>• <i>Aab gosh</i></li> <li>• <i>Yakhni</i></li> <li>• <i>Shabdeg/Shab daig</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Chaman Kalia</i></li> <li>▪ <i>Chook Wangun</i></li> <li>▪ <i>Dum Aloo</i></li> <li>▪ <i>Haak</i></li> <li>▪ <i>Nadroo Yakhni</i></li> <li>▪ <i>Rajma Gogji</i></li> <li>▪ <i>Munj Haak</i></li> <li>▪ <i>Gogji Nadir</i></li> </ul>
Desserts	Beverages
<ul style="list-style-type: none"> <li>❖ <i>Phirni</i></li> <li>❖ <i>Modur Polav</i></li> <li>❖ <i>Khir</i></li> <li>❖ <i>Shufta</i></li> <li>❖ <i>Lyde</i></li> </ul>	<ul style="list-style-type: none"> <li>○ <i>Qahwah,</i></li> <li>○ <i>Sheer Chai or Noon Chai</i></li> </ul>

Some non-vegetarian dishes to be taken note of are:

- ***Rogan Josh*** is a meat preparation, cooked with brown onions, spices, curd and liberal use of chillies which impart lively red colour to this curry.

*Rogan josh* is a dish which was originally brought to Kashmir by the Mughals, whose cuisine was in turn influenced by Persian cuisine. *Rogan josh* consists of pieces of lamb or mutton braised with a gravy flavoured with garlic, ginger and aromatic spices (cloves, bay leaves, cardamom, and cinnamon), and in some versions incorporating onions or yogurt. (Collingham, 2006)

After initial braising, the dish may be finished using the *dam pokht* slow cooking technique, its characteristic deep red colour traditionally comes from dried flowers or root of *Alkanna tinctoria* (*ratan jot*) and from liberal amounts of dried, deseeded Kashmiri chilies (*lal mirch*). Saffron is also part of some traditional recipes. (Wahhab, 2016)

- ***Tabak Maaz / Qabargaah*** is again a meat preparation made with mutton ribs cooked in milk and spices, and deep fried in desi ghee over mild heat for longer period so that the meat becomes crispy and golden in colour.
- ***Harissa*** is a very popular meat preparation which is made for breakfast during cold winter months. It is made with minced meat mixed with fennel seeds, cooked rice, cinnamon, cardamom and salt to taste.
- ***Gushtaba*** is a velvety textured meatball preparation in curd based gravy. This dish is eaten at the end of the feast called Wazwan. *Gushtaba* is a popular meat dish of wazwan and is made from pounded meat emulsion cooked in *yakhni* gravy made with curd, water spices and condiments. It is served at the end of Wazwan meal.
- ***Rista***- Meat balls in fiery red gravy made from water, red chilli extract, hydrogenated vegetable oil and a ground spice mixture and condiments. *Rista* is a restructured

meat product of Kashmiri wazwan prepared from meat emulsion with added fat salt, cumin and cardamom seeds. The emulsion is manually pounded along with fat using a specially designed wooden hammer called '*Goshpare*' (*Gosh* means meat and *Pare* means hammer) over a stone platform called '*Maz-kaane*' (*Maz* means meat and *Kaane* means stone) and spices, salt and small quantity of chilled water is added while being minced. The meat emulsion is then pressed by hands and rolled between palms into compact balls. The meatballs are then processed in gravy to get *rista* as the finished product.

- ***Aab gosh***- Lamb or mutton cooked in boiling water with salt, ginger, garlic paste and aniseed powder and then added to milk which is boiled with spices like green cardamom, onions, pepper and ghee to which the lamb or mutton is added. The meat along with milk curry is then stirred thoroughly until it boils well.
- ***Yakhni***, is yoghurt-based mutton gravy without turmeric or chili powder. This is a mild, subtle dish, flavoured with bay leaves, cloves and cardamom seeds, eaten with rice often accompanied with more spicy dishes. (Davidson, 2014) this product is made from meat chunks of approximately 5-6 cm in size, precooked in boiling water for 20 min and are then separated from broth. *Yakhni* is prepared by homogenizing curd at high heat with vigorous stirring until boiling. While boiling salt, spices, condiments, ghee and meat broth are mixed with the curd and boiling continued until a desired consistency is obtained (*yakhni*). The *Nate* i.e., precooked meat chunks are added to the *yakhni* and boiled further to obtain *nate-yakhni* (Sheikh & Shabina, 2011).
- ***Shabdeg/Shab daig*** is a very delicious dish of Kashmir origin. *Shab* means Night, *daig* means large cooking pot. *Shabdeg* is cooked on a simmering heat for whole night for a unique taste and aroma of full tender lamb/meat and *Gongloo* (Turnip) with blend of spice
- ***Kebab*** a traditional meat product of wazwan made up of minced meat, eggs along with spice blends are added while mincing and then wrapped around iron rod of 20-30 cm long for cooking. Traditionally *kebabs* are cooked by charbroiling but nowadays they are also prepared by grilling, roasting and stewing.

Some vegetarian dishes to be taken note of are:

- ***Chaman Kalia*** is a rich Indian cottage cheese preparation sprinkled with black and green cardamom, slowly cooked in milk till its tender.
- ***Rajma Gogji*** is a kashmiri delicacy prepared with Red Kidney Beans and Turnips flavoured with aniseed, ginger powder and other spices
- ***Chook Wangun*** is golden fried egg plant laced in a thick, spicy and zingy tomato and tamarind based gravy which is served as a side dish.
- ***Dum Aloo*** is made by golden fried potatoes which are mixed with gravy of curd and aromatic spices, including red chillies.
- ***Haak*** is a green vegetable; the leaves are cooked with mustard oil and spices for a healthy meal.
- ***Munj Haak*** is a soupy curry prepared with mustard oil, asafoetida, roughly chopped Knol Khol (Ganth Gobhi) along with leaves, green chillies, salt and water.

- **Nadroo Yakhin** i.e *Nadroo* means Lotus stem. It is a popular yogurt based Kashmiri curry and this version is made with crunchy lotus stem. It's infused with cardamom ginger, bay leaves and balanced out with rich curd.
- **Gogji Nadir** is an exotic combination of Lotus stem and turnips cooked with red chillies, mustard oil, asafoetida.

Some Sweet dishes to be taken note of are:

- **Phirni** is a traditional pudding made with semolina, flavoured with cardamom and saffron and set in individual bowls with nuts and *Varq* (Silver leaf).
- **Modur Polav**: *Modur Pulav* is a sweet condimental dish served in Kashmiri parties. Basmati rice is the main ingredient of the dish. Strands of saffron are the main spice which provides the unique color and aroma for the dish.
- **Khbir**: *Khbir* or *Kheer* is a pudding made using broken rice, sugar and milk is believed to be popularized by *Dogra* Rulers. It is flavored with dry fruits like cashew nuts, almonds, cardamom, pistachio and raisins. It is usually served after a main course meal.
- **Shufta**: *Shufta* is a Kashmiri sweet dessert containing plenty of dry fruits and sugar. It contains cardamom and pepper. This dessert is the most preferred one due to the extensive use of dry fruits and spice which provides good heat in the harsh winter months.
- **Lyde**: It is a popular Kashmiri dessert made by deep frying whole wheat flour. The traditional way of serving it is with *Sheer chāi*.

Some beverages to be taken note of are:

- **Qahwah**, is a Arabic word *qahwah* which may have been the root for *kahwah* or *kehwa*. Certain sources also trace the origins of the drink to the Yarkand Valley in the *Xinjiang* area (which, with Kashmir, was part of the *Kushan* Empire during the 1st and 2nd centuries AD). It is likely that use of *kehwa* spread during *Kushan* rule.
- **Sheer Chai or Noon Chai** is prepared with tea, milk, Soda Bicarbonate and salt. To get the proper colour of tea, the leaves need to be simmered for a longer period of time. This is traditionally done in a pot called *Samovar*.

### Popularity of Kashmiri Cuisine:

To check the popularity of the Kashmiri Cuisine the guest feedback as available on the travel portal: Trip advisor was taken on 1<sup>st</sup> Feb, 2018. Based on the data available the following table was prepared.



**Table 2: Ahdoos Restaurant Residency Road, Srinagar**

S.No	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
1	Kashmiri food	175	152	23	14	8	372
2	Mutton	82	58	7	5	5	157
3	<i>Kebab</i>	48	34	7	1	2	92
4	<i>Roganjosh</i>	35	32	4	4	4	79
5	Rice	34	41	7	5	4	91
6	Curry	16	13	4	0	1	34
7	<i>Gushtaba/ rista</i>	9	12	0	0	0	21
8	<i>Naans</i>	27	34	2	2	0	65
9	Non vegetarian	40	40	9	6	1	96
10	<i>Tabak maaz</i>	16	9	1	0	0	26

Source: Trip Advisor Feedback

**Table 3: Mughal Darbar Restaurant Residency Road, Srinagar**

S.no	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
1	Kashmiri food	78	80	36	15	8	217
2	Mutton	35	34	19	5	6	99
3	<i>Kebab</i>	22	17	14	3	1	57
4	<i>Roganjosh</i>	23	21	5	2	1	52
6	Curry	5	7	7	1	3	23
7	<i>Gushtaba/ rista</i>	4	9	4	1	1	19
8	<i>Naans</i>	8	5	4	3	0	20
9	Non vegetarian	21	24	17	4	2	68

Source: Trip Advisor Feedback

**Table 4: Stream Restaurants, Srinagar**

S.no	Food Group	Excellent	Very good	Average	Poor	Terrible	Total
1	Kashmiri food	35	18	4	4	2	63
2	Mutton	24	22	6	0	0	52
3	<i>Kebab</i>	7	4	0	2	0	13
4	<i>Roganjosh</i>	24	22	6	0	0	52
5	<i>Naans</i>	4	5	2	1	0	12

Source: Trip Advisor Feedback

Table 5: Poush Restaurant, Srinagar

S.no	Food group	Excellent	Very good	Average	Poor	Terrible	Total
1	Kashmiri food	8	15	10	0	1	34
2	<i>Kebab</i>	0	2	2	0	0	4
3	<i>Roganjosh</i>	0	4	0	0	0	4
4	<i>Gushtaba/rista</i>	0	3	1	0	0	4
5	Non vegetarian	3	6	5	0	0	14

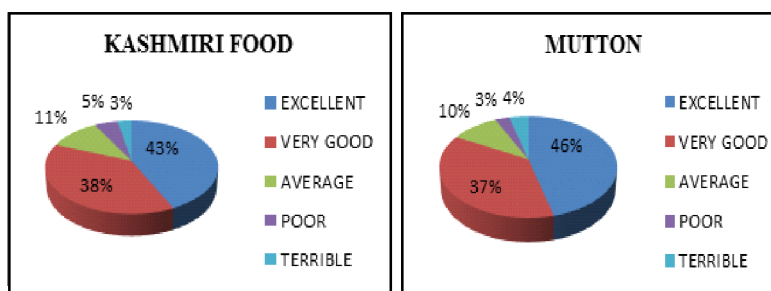
Source: Trip Advisor Feedback

Table 6: Consolidated Data of the above Restaurants

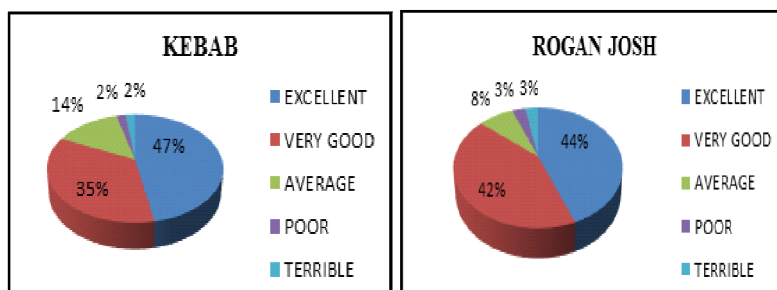
S.No	Food Group	Excellent	V.Good	Average	Poor	Terrible	Total
1	Kashmiri food	296	265	73	33	19	686
2	Mutton	141	114	32	10	11	308
3	<i>Kebab</i>	77	57	23	3	3	163
4	<i>Roganjosh</i>	82	79	15	6	5	187
5	Rice	34	41	7	5	4	91
6	Curry	21	20	11	1	4	57
7	<i>Gushtaba/rista</i>	13	24	5	1	1	44
8	<i>Naans</i>	39	44	8	6	0	97
9	Non vegetarian	64	70	31	11	3	179
10	<i>Tabak maaz</i>	16	9	1	0	0	26

## DATA ANALYSIS AND INTERPRETATION

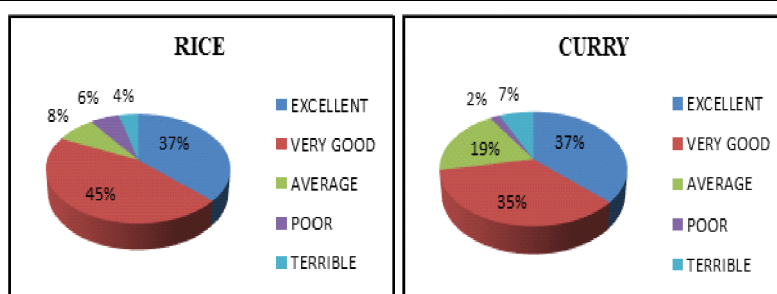
S.no	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
1	<b>Kashmiri food</b>	296	265	73	33	19	<b>686</b>
	<b>% age</b>	43%	38%	11%	5%	3%	<b>100%</b>
2	<b>Mutton</b>	141	114	32	10	11	<b>308</b>
	<b>% age</b>	46%	37%	10%	3%	4%	<b>100%</b>



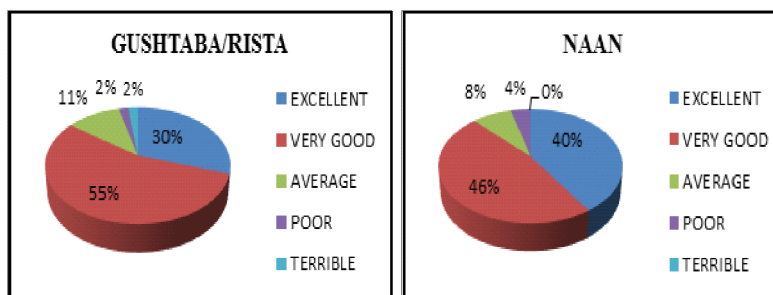
S.no	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
3	<i>Kebab</i>	77	57	23	3	3	163
	% age	47%	35%	14%	2%	2%	100%
4	<i>Roganjosh</i>	82	79	15	6	5	187
	% age	44%	42%	8%	3%	3%	100%



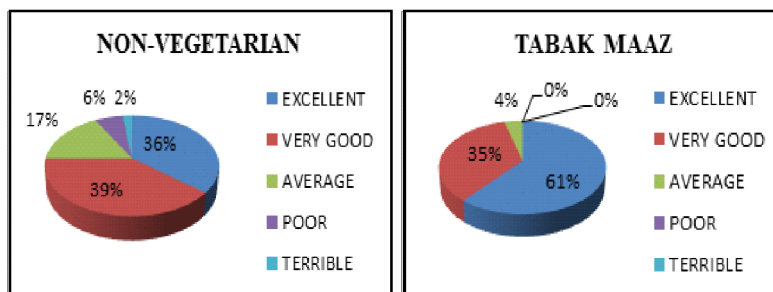
S.No	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
5	RICE	34	41	7	5	4	91
	% Age	37%	45%	8%	6%	4%	100%
6	CURRY	21	20	11	1	4	57
	% Age	37%	35%	19%	2%	7%	100%



S.no	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
7	<i>Gushtaba/rista</i>	13	24	5	1	1	44
	% age	30%	55%	11%	2%	2%	100%
8	<i>Naans</i>	39	44	8	6	0	97
	% age	40%	46%	8%	4%	0%	100%



S.no	Food Group	Excellent	Very Good	Average	Poor	Terrible	Total
9	Non vegetarian	64	70	31	11	3	179
	% age	36%	39%	17%	6%	2%	100%
10	Tabak maaz	16	9	1	0	0	26
	% age	61%	35%	4%	0%	0%	100%



### ISSUES AND CHALLENGES

- There is no standardization of the recipes of various gourmet delights as Wasa's (Cooks) do not share their expertise freely. The art of Kashmiri Cooking has been passed from one generation of a family to another till date and is still continuing.
- Presently traditional meat products of Kashmir are not standardized as there is no comprehensive information available for their commercial production. The present scenario of their preparation in batches is time consuming and the products have a limited shelf life.
- As main nutritional component in Kashmiri cuisine is fats and oils it does not become an easy choice for calorie conscious persons.
- Reheating of dishes can be unfavorable to health since the changes of unsaturated fatty acids can prove to be harmful to the health.
- The use of chemical colouring agents become toxic to dishes which use them in comparison with the traditional use of sundried chillies, cockscomb, etc.
- Wazwan being the highlight of Kashmiri Cuisine, we need to emphasize on providing clean environment to the Chefs to cook food and Chef's in turn need to work on their personal grooming and hygiene.

## CONCLUSION

The Kashmiri cuisine is a fusion of Persian (Iranian), Turkish, Arabic, and Central Asian Cuisines. Non vegetarian food and in particular Wazwan is the USP of Kashmiri Cuisine as it brings distinctive aroma & taste, besides a huge potential to market these delicacies, nationally and internationally. Kashmiri Cuisine is known for its Non vegetarian offerings but some vegetarian dishes like *Dum Aloo*, *Haak*, *Nadroo Yakhin*, *Rajma Gogji*, etc have also impressed many people, who have tasted them. From the data Retrieved from Travel Portal: Trip Advisor, we can conclude that kashmiri Cuisine is highly popular as more than 80% people have rated Kashmiri food, Kashmiri Mutton, *Rogan Josh*, *Kashmiri Seekh Kebabs*, *Gushtaba*, *Rista*, and Rice as Excellent / Very Good. Non Vegetarian food collectively and Kashmiri curry items are relatively less liked, as they have been only liked by 75% people. *Tabak Maaz* has stood out by 96% people found it palatable. In totality Kashmiri food has been loved by most of the people who have got the opportunity to taste these gourmet's delights.

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# 5

## CHAPTER

### Desirability of the Heritage Food of Old Delhi in a Tourists Itinerary

Deepali\* & Monisha Juneja\*\*

#### ABSTRACT

*The word heritage originated from the word heriter (old French) which translates into inherit, which can be defined as “to hand down from the past, as a tradition”. The dictionary meaning of “culture” can be explained as “the results of activities and human mind creations, such as: beliefs, arts, customs and human knowledge as social creature.” According to UNESCO, “Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society which are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.”*

*Heritage and culture that people adopt in a civilization goes hand in hand with their eating habits. Food culture of a place develops as the community settles down and begins to flourish. Food being the necessities of existence is also associated with the different rituals and habits. The food culture adopted is what facilitates working and surviving in different climatic conditions.*

*As Delhi is said to be one of the oldest living cities of the world. This study has identified the different food varieties that have survived through time without losing their charm. These food delicacies which had been associated with generations of khanzamaas of the Delhi are still popular. There are many prominent food shops in Old Delhi which have become famous amongst the tourists.*

*A descriptive research design was used for this study, along with structured separate questionnaires for prominent shop vendors and tourists. Likert scale has been used to measure the desirability of Old Delhi food shops in the tourist's itinerary. The study focuses on the interest of the tourist in knowing about the history of food served by Old Delhi vendors.*

**Keywords:** *Heritage, Culture, Food, Intangible, Itinerary, Old Delhi.*

#### INTRODUCTION

The word heritage originated from the word *heriter* (old French) which translates into inherit, which can be defined as “to hand down from the past, as a tradition”. The dictionary meaning of “culture” can be explained as “the results of activities and human mind creations, such as: beliefs, arts, customs and human knowledge as social creature”. According to UNESCO,

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“Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society which are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.”

Heritage and culture that people adopt in a civilization goes hand in hand with their eating habits. Food culture of a place develops as the community settles down and begins to flourish. Food being the necessities of existence is also associated with the different rituals and habits. The food culture adopted is what facilitates working and surviving in different climatic conditions. The heritage of yesterday to build the future, for culture is by its very nature dynamic and is constantly being renewed and enriched (ICH, UNESCO, 2018).

### CULTURAL HERITAGE

The Cultural heritage can be dated back to 6<sup>th</sup> A.D. Antiquity (Theoderic the great). The UNESCO convention in Paris on 16<sup>th</sup> November, 1972 where monuments, group of building and sites were included (Jokilehto, 2005). In 1976 in the ICOMOS Chapter the term Cultural Tourism was coined. This type of tourism aimed at exploring heritage monuments and sites, thus it become important to maintain and safeguard these sites.

In New Zealand Charter in 1992, indigenous cultural heritage which related to family, locals and tribes were also included. In the year 2003 UNESCO, in their convention safeguarded the intangible cultural heritage. This would protect and promote their practices, representations, expressions, knowledge and skills.

Although at present the UNESCO doesn't include culinary traditions on their intangible cultural heritage list. But surprisingly some cuisines due to the communities have found their way onto the UNESCO Intangible Cultural Heritage list (unesco.com, 2018).

To name a few:

1. The traditional Mexican cuisine which has been recognised for their specific framing techniques called Milpa, cooking practices called nixtamalization and traditional utensils like the grinding stones and mortars.
2. The Mediterranean diet (Greece, Italy, Morocco and Spain) has not only been recognised for their fresh fruits and vegetables, nuts and healthy fats and wine but the skill and knowledge that comes along with the growing and processing of these along with the cooking techniques. The practices of eating together is also a cultural that has been noted and recognised by this listing.
3. Gingerbread Craft from North Croatia which goes back to the European Monasteries during the middle ages. When came to Croatia become an art. The gingerbread is shaped into moulds, baked and then decorated. This craft has been passed on to one generation to another.
4. Gastronomic Meal of the French is the gathering of people to celebrate any occasion. This celebrates togetherness starting from preparation selection to dishes, pairing it with wine, setting up of the table, the courses of the dishes starting with an aperitif and ending with a liqueur with minimum four courses in between.
5. Turkish Coffee got inscribed in year 2013 in the prestigious UNESCO's intangible cultural heritage list. Along with the special preparation and brewing technique, it is also recognised for the cultural aspect associated with it. It is traditionally served



at the coffee houses. This has become a symbol of hospitality, friendship and entertainment in the daily life of Turkey.

The common element in all these is the recognition and safeguarding of these community along with heritage food (ICH, UNESCO, 2018).

### CULINARY TOURISM

This study is to bring focus on the importance of culinary tourism as a vital part of cultural tourism where in a tourist indulge in the food delicacies associated with the heritage of the destination as it is a part of hospitality service industry. Culinary attraction of a destination is not just limited to trying out food at a destination but also exploring the difference between various culinary trails, variety of food serving outlets, food guides, developed recipes and ingredients and adopted cooking techniques. It is also seen as an exploration of cultural development of the society and the people along the time line (Long, 2014).

According to the World Food Travel Association (WFTA), culinary tourism is defined as “pursuit of unique and memorable culinary experiences of all kinds, often while travelling, but which can also be enjoyed at home.”

Long (2004) defines Culinary tourism as “the intentional exploratory participation in the food ways of another culture – participation includes consumption, preparation, and presentation of a food item, cuisine, meal system, or eating style considered to belong to a culinary system not one’s own.”

Further Ignatov and Smith (2006), have defined culinary tourism “as trips during which the purchase or consumption of regional foods (including beverages) or the observation and study of food production (from agriculture to cooking schools) represent a significant motivation or activity”.

### INDIAN FOOD HERITAGE

Indian cuisine goes back to about 5000 years which is the result of eating habits of the different communities and cultures. The distinct flavours and dishes are influenced by the different communities which from time to time invaded India. The Indian cuisine is a mix of variety of cooking styles and it varies from region to region (Khanna, 2014).

As Srinivas (2007) had stated that in India, “food is a marker of identity; of caste, of class, of family, purity, kinship, tribe affiliation, parity, lineage, religious group, ethnic group, and increasingly of secular group identification”.

The cuisine of India can be associated with the long history of the country itself. The intriguing food culture has been developed over centuries. The traces of its development can be found in the Vedas and its development along the rule of different reigns throughout the time. The variance of the people who inhabited the country also can be seen as different clans with different eating habits and cooking practices. Religious practices such as prohibition of pork by Muslims; ginger-garlic and onion by Jains; meat by the Hindus have allowed the people to find different sources of nutrition. Abundance of spices and herbs available are utilized for enhancing flavours giving every dish a unique charm (Duttagupta, 2013).

North Indian cuisine is most popular and made across restaurant abroad and best known for the Mughal cuisine. The characteristic ingredients are yogurt, wheat, fried onions, nuts and

saffron. The dishes range from kebabs, naan prepared in the tandoor and rich non-vegetarian gravies (Khanna, 2014). A usual north Indian meal may comprise of different kinds of flatbreads- *roti, puri, paratha or naan* accompanied with curry or *dal* preparations. *Ghee*, clarified butter, mustard oil is used as cooking medium and spices such as cumin, coriander, red chillies, turmeric, asafoetida are used for flavouring (Jaitly, 2004).

## INTRODUCTION TO DELHI

Delhi, is also a major commercial hub of India. The capital city of India and the best location for exploring Northern India, Delhi is considered to be the city with a heart. It has completed a century as being the capital of India and has even vivid history and culture associated with it. The city of Delhi has seen very powerful reigns of the past such as Mughal's, Tughlak's and Lodhi's also the Britishers preferred it as a capital over Kolkata. Epic tales of *Mahabharat* are associated with the different landmarks of the city, Delhi is said to be a history's child. It shows a unique amalgamation of traditions, culture, cosmopolitan & political world, bridging historical glory with the modern era. It has numerous tourist attractions and places of interests spanned over every nook and corner. To explore tradition and culture associated with its historical development. Hence it attracts a lot of tourist from different countries from all around the world (Delhi Tourism, 2018).

As per the data published by Government of India, Delhi airport are the highest foreigner traffic receiving airport of India in the year 2017 (Press Information Bureau -2017).

With the cultural diversity being combined with modern architectural developments having the best services & features of a modern city like metro system, shopping arcades, world class hospital services, colourful markets and numerous eating places. Architectural artefacts & remains of timeline of different rulers such as Old Fort, Red Fort, Feroz Shah Kotla Fort, Tughlakabad Fort, Humayun's Tomb, Qutab Minar can be observed here. Different places of faith and culture like Jama Masjid, Lotus Temple, Laxmi Narayan Mandir and Akshar Dham also shows significant blending of religions. Apart from these attractions Delhi maintains its green cover. Thus Delhi, is celebrated as a symbol of the India's rich past and provide a fitting window to the country (Delhi Tourism, 2018).

As Delhi is said to be one of the oldest living cities of the world. The different food varieties that have survived through time without losing their charm. These food delicacies which had been associated with generations of khans and nobles of the Delhi are still popular. There are many prominent food shops in Old Delhi which have become famous amongst the tourists (Khanna, 2014).

## CHANDNI CHOWK: AN OVERVIEW

Chandni Chowk provides a fascinating glimpse of Delhi's past with narrow *galleys, havelis* and different *Bazars*. Culture of Old Delhi flows through the *Shahjahanabad*, which was laid by the Mughals, right outside the Red fort. It is home to the oldest Delhi's markets.

Chandni Chowk provides a unique experience while crossing the narrow lanes thoroughfare with its chaotic streets lined by hawkers providing full medieval shopping experience. "Chandni Chowk" meaning "moonlight place" it sparkles with markets offering clothes, perfumes, electronic items, jewellery, candles, idols. It is famous for its food outlets & street hawkers offering Indian snacks. Chandni Chowk dates back to 17<sup>th</sup> century when it was established

by the Mughal emperor Shahjahan. It is believed that this market was established so that Shah Jahan's daughter, could purchase everything she needed. It was a place where traders and merchants gathered from all around the country. There are several areas dedicated to different things. The major markets are: Nai Sadak famous for Books and Stationaries; Dariba Kalan providing splendid choices of silver jewellery; Chawri Bazar shows options for bulk printing, most commonly wedding invitations; Kinari Bazar is a shopping haven providing a vast variety of clothing & accessories utilised during weddings; Ballimaran is known for selling shoes and electronics; Khari Baoli, Asia's largest spice market (Delhi Tourism, 2018).

Chandni Chowk is often visited by tourist for its exquisite offerings of mouth-watering food. It is said to be a heaven for gastronomes around the world. It is home to some of the oldest and most famous food serving outlets which are generations old. The outlets provide sufficient options for vegetarian & non-vegetarians. Food outlets provides sweet & savoury options like *Natraja's Dahi Bhalle*, stuff *paranthas* of *Paranthewali Gali*, *Falooda* from *Giani Ji*, naan from *Kake di hatti*, original Bikaner Sweet Shop, *Karachi halwa* of *Chainaram*, kebabs from *Al-Jawahar & Kareems* near Jama Masjid. Also hawkers can be found selling *Daulat kichaat*, fruit *chaats* and other street food like *Samosa* and *Jalebi*. Tea and *pan* shops can be found at every corner.

Different types of food establishments of visited under this study were:

1. Free-standing independent outlets– These are independently owned outlets having different policies and procedures followed. Also, a plenty of serving styles are utilized, menu prices and choices are often market oriented. Menu options are limited.
2. Street vendors or hawkers– Street vendors and hawkers may be found prominently in the market areas providing finger food which could be eaten quickly without much hassle with in a pocket friendly price.
3. Roadside *Dhabas* – *Dhabas* are the outlets providing a meal for little or no service offered to the consumer. they often provide with suitable condiments and options related to meals with a sitting facility.
4. Indian confectionaries – Sweet shops and savouries snacks are offered by such outlets such as *samosa*, *jalebi*, *kachori* etc for reasonable prices for immediate consumptions (Duttgupta, 2013).

## RESEARCH OBJECTIVES

1. To recognise the desirability of foreign tourists visiting old Delhi street food outlets.
2. To identify the sources of information used by foreign tourists for acquiring information about street food outlets of Old Delhi.
3. To understand how the heritage food of Old Delhi may be listed on the Intangible Cultural heritage UNESCO.

## RESEARCH METHODOLOGY

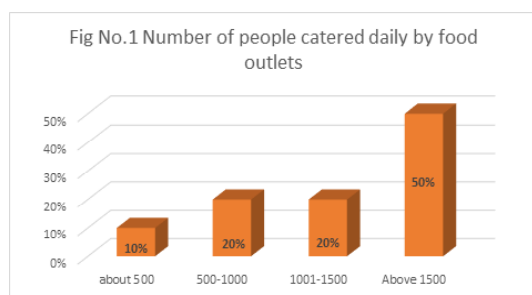
**Research Design-** A descriptive research design has been used that helps to describes the characteristics of a particular individual or group. As this study is concerned with the narration of facts and characteristics related.

Data Collection–Primary data and secondary data both have been used in this study. The primary data has been collected using structured questionnaire. Two set of questionnaires was prepared. One for the Old Delhi food outlets in the area of Chandni chowk and the other for the foreign tourist visiting these outlets. Both the set of questionnaires were filled out by personal contact.

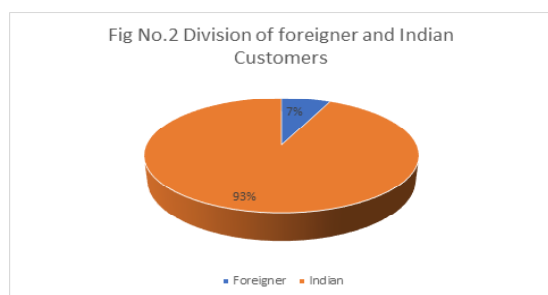
The data was collected using both probability and non-probability sampling. For the food outlets probability sample was used as all are located in the area of Chandni chowk and all have equal chance of being collected. Systematic sampling where ever kth unit from the list of population was selected. Non-probability design was used for the collection of data from the tourist visiting and eating at these outlets. Convenience sampling method was used as the tourist population is infinite. The sample size for the food outlets was 10 and for the foreign tourist was 25.

## DATA COLLECTION

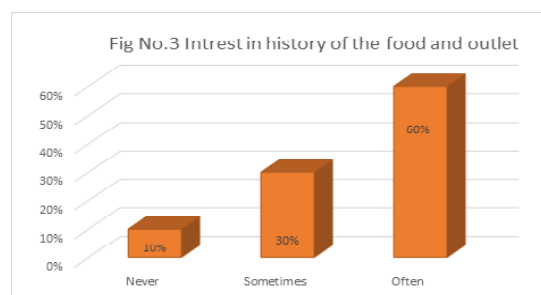
### A) From the Famous Old Delhi Food Outlets



In the bar chart in the Fig. No.1, 50% of the food outlets are serving to more than 1500 people per day and 10% of the outlets were limited to 500 people per day.



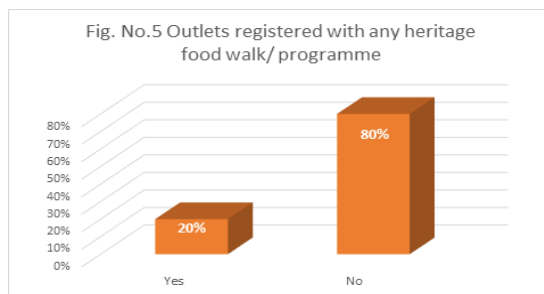
A mean of consumers served at all the outlets 7% were foreign tourists and 93% consumers were Indian which can be seen in the pie chart above.



A likert scale of 3 points was used to identify the curiosity of the people in the background history of the outlet and food served. It was found that a majority of 60% people “often” inquire about the detail regarding the history and only 10% were not concerned.

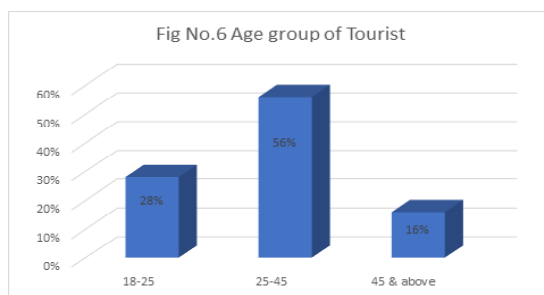


Only 10% of the outlets are associated with heritage and food walks. however, 90% of them are not associated with any heritage or tourism related walks in the bar chart in the Fig. No. 4.

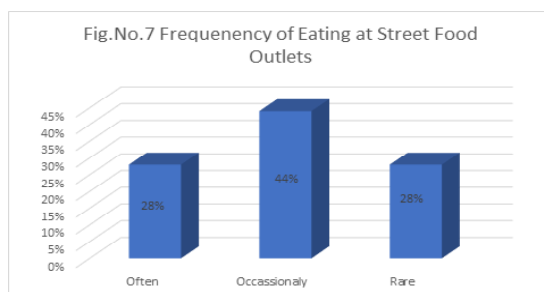


The chart above shows that out of the outlets visited 80% were not available online while only 20% had their presence online.

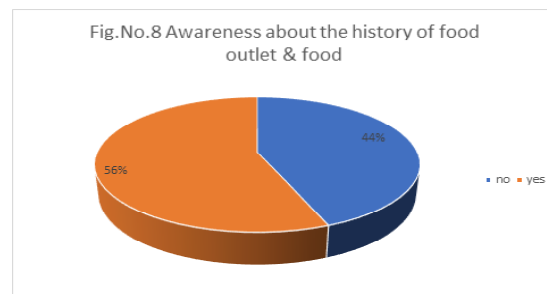
### B) From the Foreign Tourist



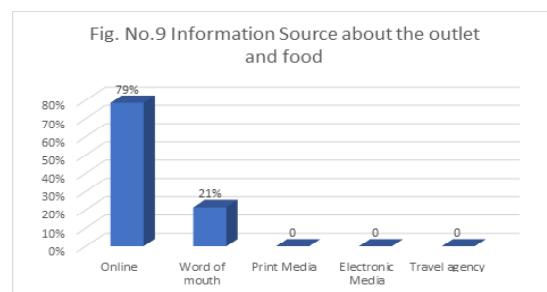
Sample from which data was collected 56% of tourist were of 25-45 years age group, along with 28% belonging to age group of 18-25 years with only 16% were of more than 45 years of age in the bar chart displayed.



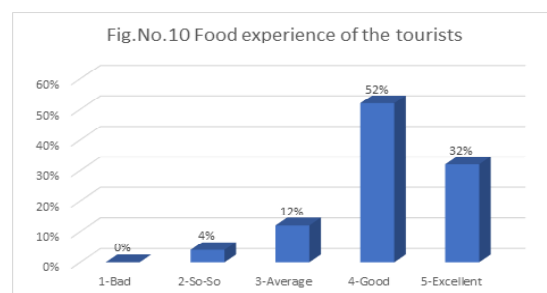
A Likert scale of 3 points referring to eating out habits of the sample collected was used to display eating out habits of the tourists. It was found that 28% were frequently visiting the different street food outlets for their meals were else 48% of these were occasionally choosing such food outlets and 28% of tourist would choose to rarely eat from such outlets.



In the pie chart, 56% of the sample data collected from tourists were not aware about the history related to the outlet or food and 44% were aware about the history related to the outlet or food.



Most of the tourist i.e. 79% from the sample collected were from the online sources such as different websites and blogs and 21% were visiting these outlets via word of mouth publicity. However, it was found that no print media or electronic media was utilized to bring about the awareness about such outlets.



A Likert scale of ratings with 5 points was used to know about the experience of the tourist regarding their experience about the food and it was found that 52% of the tourist had good experience and 32% rated their

experience as excellent with the food. 12 % of the tourist were having an average experience and only 4% had a below average experience, however none of them called their experience as bad.

## CONCLUSION

- It was found that a large number of consumers visited Old Delhi food outlets on daily basis, out of which approx. 7% were foreign tourists.
- The prime source of information used by these tourist before visiting such outlets were various privately owned commercial websites.
- From the sample collected it was found that 60% of the consumers were interested in the historical background of the outlet and food.
- It was found that 90% of the outlet were not associated with any heritage or food walks but were frequently visited by the different heritage walk groups.
- Out of the sample collected only 20% had their presence online out of which one used their own website and the other one was present on a food delivery application.
- 56% of foreign tourist were aware of the history related to food or outlet.
- 84% tourist were having an above average food experience while visiting these Old Delhi food outlets

## DISCUSSION OF RESULTS

This study focused on the heritage food of Old Delhi Food outlets. Two sets of structured questionnaires were used for collecting data. One from the Old Delhi food serving outlets and the other for the foreign tourist.

It was found that first objective which focuses on recognition of the desirability of foreign tourists visiting old Delhi street food outlets. It was found that 84% of the foreign tourist had an above average experience related to food and visiting the outlet but hygiene and food handling procedures was a concern for few tourists.

The second objective to identify the sources of information used by foreign tourists for acquiring information about street food outlets of Old Delhi were mostly online commercial websites such as tripadvisor.com, tripto.com or blog writing of previous travellers. Also, 'word of Mouth' was found to be prominent means of publicity for such outlets. However, no print media or electronic media are involved in spreading the awareness about such food serving outlets. It was found that only 20% were present online for food services. It can be said that a listing of these outlets which are more than 50 years old can be made for reference of tourists.

Third objective which is to understand why the heritage food of Old Delhi may be listed on the Intangible Cultural Heritage UNESCO is being fulfilled as it was found that 60% of the foreign tourists were interested in the history related to the outlet and food. For Old Delhi Food shops to be recognized as intangible cultural heritage along with the food experience the cultural heritage aspect also needs to be brought into focus. Delhi Tourism may publish the list of food outlets to be covered under food and heritage walks of Old Delhi, which may be updated and organised as required. This information may be published on the tourism websites and also in the electronic or print media.

## LIMITATION AND RECOMMENDATIONS

- Time constraint was a major challenge of the study.
- Limited sample was used which cannot be used for to generalise the result for the entire population.
- Non-participating behaviour of the vendors, owners of the food outlets along with tourist.

Further research may be carried out on the recipes followed and the best-selling products also there is scope for identifying the actions to be used for upgrading and improving the service quality and hygiene practices of such food outlets.

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# 6

## CHAPTER

### **A Study on the Street Foods Served in Lucknow City and its Effect on Epicurean Tourism**

**Dr. Gaurav Vishal\* & Pulak Mandal\*\***

#### **ABSTRACT**

*Lucknow has been known for its culture and gastronomy since long, due to the cultural heritage left by the Nawabs. The Awadhi food is basically a blend of the Mughlai and the traditional cuisine of Uttar Pradesh. In the modern times, with the advent of globalization, the food culture has also changed. Food served in Lucknow city is now a blend of the modern fast food, Indo Chinese cookery, South Indian and Traditional Awadhi food. The food culture of any destination plays an important role in the overall tourism development. Lucknow has a vast heritage in terms of Architecture, Lifestyle and Gastronomy. The food that is served on the streets and small outlets can play a major role in promoting Lucknow as a potential tourism destination. Growth is a fundamental aspect for the development and sustainability of any enterprise. The food vendors form a major part of the multi crore food industry, a phenomenon that exists worldwide. Food is an indispensable part of human life, which has become an integral part of our society, culture, values, etc. We work to feed ourselves as a basic necessity, rest all needs come on second priority for us. It also plays a central role in our festivals, occasions, celebrations, parties, conferences, meetings etc.*

*This sector provides income for the people who would otherwise be unemployed, since starting a small venture requires only a few rupees, a sound location, as food helps in meeting the nutritional requirements of significant portion of the population. The Government and the civic bodies have to come forward to promote this sector which caters to such a huge population.*

**Keywords:** *Gastronomy, Street Vending, Food Industry, Food Service Sectors, Epicurean Tourism, Culture.*

#### **INTRODUCTION**

Lucknow has been known for its culture and gastronomy since long, due to the cultural heritage left by the *Nawabs*. The Awadhi food is basically a blend of the Mughlai and the traditional cuisine of Uttar Pradesh. In the modern times, with the advent of globalization, the food culture has also changed. Food served in Lucknow city is now a blend of the modern

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fast food, Indo Chinese cookery, South Indian and Traditional Awadhi food. The gastronomy of any place plays an important role in the overall tourism development. Lucknow has a vast heritage in terms of Architecture, Lifestyle and Gastronomy. The food that is served on the streets and small outlets can play a major role in promoting Lucknow as a potential tourism destination. Growth is a fundamental aspect for the development and sustainability of any enterprise. The food vendors form a major part of the multi crore food industry, a phenomenon that exists world wide. Food is an integral part of human life, which has become an indispensable part of our society, culture, values, etc. We work to feed ourselves as a basic necessity, rest all needs come on second priority for us. It also plays a central role in our festivals, occasions, celebrations, parties, conferences, meetings etc.

The street vending sector provides income for the people who would otherwise be unemployed, since starting a small venture requires only a few rupees, a sound location, as food helps in meeting the nutritional requirements of significant portion of the population. The Government and the civic bodies have to come forward to promote this sector which caters to such a huge population. Street foods in Calcutta: Chakravarty. I and Canet C. A Study Conducted by All India Institute of Hygiene and Public Health. & Food Quality and Standards, Service, FAO., Ref No: FNA/ANA 17/18, 1996

In the present period of globalization, the retail sector is one of the the highest rising and emerging sector after agriculture in India and a major source of employment generation. However, besides the formal retail chains, small scale retailing including the street vending has been one of the easiest ways to survive for the working poor and is wide spread in the urban informal sector. Street food is intimately connected with take-out, junk food, snacks, and fast food; it is distinguished by its local flavour and by being purchased on the streets.

Problems and Prosperous of Street Vendors in Sivakasi, M. Selvakumar 1\*, V. Sathyalakshmi 2 and K. Siva Murugan3 1Assistant Professor, 2Research Scholar, 3 PG and Research Department of Commerce, Ayya Nadar Janaki Ammal College, Sivakasi. Tamil Nadu, India UGC – MRP, Research Fellow, <http://www.trp.org.in/wp-content/uploads>

Partiality towards modern infrastructure results in a rejection of traditional livelihoods conducted on sidewalks and shop houses. Food may be defined as any raw material which may be cooked or uncooked, but is fit for human consumption. Food industry is a growing industry which is expanding on a day to day basis. In Lucknow only there are thousands of people directly or indirectly associated with this sector. It is important to know about their lifestyle, livelihood, & strategies adopted.

<http://studylib.net/doc/6615846/global-f>

The food industry in Lucknow may divided into two categories :

**Organized Sector:** The organized sector comprises of café, restaurants, takeaway shops, and those who are doing this business legally, possessing valid food licenses, having their own commercial infrastructure which may be fully owned or leased. This sector generally provides food which is bit expensive, hygienically prepared as per the policies laid down by the statutory bodies. It is a good source of employment generation but the workers are generally underpaid.

Tetra Pak Group\_Sustainability Update Report 2014.pdf, <https://www.scribd.com/document/23850341>

**Un organized sector:** This sector majorly comprises of the vendors. Food not only is palatable, inexpensive and convenient but also is a large source of employment generation. Further, food is a treasure house of local culinary traditions and is increasingly playing an important role as an enhancer and force multiplier of tourism sector all over the world. The National Policy on Urbanstreet food Vendors suggests that about 2% of the urban population consists of vendors, of which a significant proportion consists of food vendors. However, the main concern involved is the quality of food that is served. At times it is not adequately hygienic and totally safe for human consumption, having adverse effect on public health. On the other hand, the issues of vendors' identity, their economic sustainability and health conditions etc. are also the areas of concern.

Different Ideas For Licensing Street Vendors Especially In Indian Old Cities, Abhigna AS, Centre for Civil Society, Working Paper No 235 Summer Research, Internship 2010

### **IMPORTANCE OF THE STUDY**

As per the National Policy on Urban Street food Vendors about 2% of the urban population consists of street vendors, As per an estimation there are more than ten thousand people involved in this sector in Lucknow city. The food industry is undergoing a major change now a days, with the implementation of Food Safety and Standards Bill (now Food Safety and Standards Act, 2011) and Ministry of Food Processing Industries was appointed as the nodal agency for the welfare of hawkers and food vendors. There are numerous challenges faced by these food vendors. Some of these challenges are lack of sufficient capital, lack of government support, high production cost, lack of knowledge etc. Apart from these factors there is a the main purpose is to understand the various variables that affect the sale of food in Lucknow city, with this objective, this study has been conducted so that the suitable policies can be framed which can be useful for the street vendors as well as for the public.

"National Policy for Urban Street Vendors". 2004, Ministry of Urban Affairs and Urban Poverty Alleviation, Govt. of India Nirman Bhawan, C - Wing, Dr. Maulana Azad Road, New Delhi, 110011

### **CURRENT SCENARIO OF FOOD VENDING IN LUCKNOW**

Globalization has played a major role in the cuisine of Lucknow and served now a days in Lucknow is basically a combination of the traditional food and the modern food.

The dishes can be categorized on the basis of:

#### **FAST FOODS**

Pizza: Includes Onion, Capsicum, *Paneer*, Onion Cheese Tomato, *Paneer Tikka*, *Chicken Tikka*, Mutton Pizzas).

Burgers: Includes Plain Burgers, Veg Burgers, Chicken Burgers, Mutton Burgers, Corn Burgers, Mushrom Burgers.

Assorted Chicken Preparations: Chicken Lolly pops, Crumb Fried Drumsticks, Kentucky Fried Drumsticks, Fried Chicken, Frankies

### SOUTH INDIAN

Includes Sambar- *Idli, Sambar Vada, Medu Vada, Sambar Dosa, Mirchi Vada, Aloo Bonda, Chutneys* like green *chutney*, Coconut *chutney* and Tomato garlic *chutney*.

### INDIAN CHAAT

Includes Aloo Chat, *Pani ke Batashe, Pani Puri, Dahi Ke batashe, Matar Tikki, Aloo ki Tikki, Dahi Vada, Papri Chat, Chat asket, Chana Zor Garam, Bhelipuri etc.*

### CHINESE

Soups: Talumien, Hot n sour, Peeking, Clear Chicken Soup, Corn Soup, Clear Veg Soup, Chowmiens : Garlic, Schezwan Style, Hakka Noodles, Chicken, *Paneer*,

Momos: Veg, Chicken, Mutton, Hot Garlic Sauce for the momos.

Fried Rice: Veg Fried rice, Schezwan style, Chicken, Shanghai Omlette

Manchurians: Veg, *Paneer*, Chicken, mutton

Chilly *Paneer*, Chilly chicken, Assorted spring rolls( Chicken, Veg)

### PUNJABI

*Chole Bahture, Chole Kulche, Chola Samosa, Rajmah Chawal, Kadhi Chawal, Bheege Chane ki Chaat, Fried Fish, Fish Amritsari, Fried Egg, Meat Achaar and paratha, Aloo paratha, Gobi Paratha, Paneer Paratha, Lassi (Sweet & Salted), Gajjar Ka Halwa, Sheer Halwa & Paratha.*

### MUGHLAI

#### Kebab

*Shami Kebab*: It is a mince meat and *chana dal* mixture cooked along with spices and *meetha ittra*, ground finely, formed into a patty shape and shallow fried over a *mahi Tawa* (Griddle)

*Gallouts Kebab*: It is a mixture of raw mince meat, papaya paste, fried onion paste and sweet spices along with *meetha ittr*, all ground to a fine paste and cooked over a griddle. The peculiarity is the mouth melting tendency of this *kebab*.

*Boti Kebab*: Small boneless chunks of mutton obtained from the thigh are marinated and cooked over a griddle, delivering a delicious blend of mutton chunks cooked along with fried onion, ginger garlic, sweet spices and *meetha ittr* based gravy.

*Seekh kebab*: *Gallouti Kebab* mixture mixed along with egg white applied over a skewer, and cooked in a *tandoor*, giving a tunnel type structure which is hollow in between.

*Reshmi Kebab*: A *seekh kebab* made using chicken mince, egg white and sweet spices.

*Tandoori chicken*: Chicken marinated with *tandoori masala* and roasted over slow charcoal fire, frequently basted and served with chutney and onion rings.

*Shikham Puri Kebab*: A *kebab* originally from hyderabadi origin having *shami kebab* mixture, mixed along with egg, stuffed with hung curd, with chopped onion and nuts, and deep fried.

*Patthar Ke Kebab*: *Pasandey* of mutton marinated with *tandoori masala*, cooked over hot stone griddle.

*Kakori Kebab*: Similar to the *seekh kebab*.

*Nihari*: A mutton stew, originally made from beef, thickened with gram flour and refined flour. Served along with *kulcha*.

*Kulcha*: Leavened bread cooked over hot griddle.

*Yakhani*: A flavored, thick mutton stock, served as soup.

*Yakhani Pulao*: Rice cooked in *yakhani*, garnished with fried onions.

*Sofiyani Biryani*: A flavored rice preparation made using chicken.

*Mutton Biryani*: A flavored rice preparation made using mutton

*Vegetable Biryani*: A flavored rice preparation made using vegetables and soya been nuggets.

*Kebab Paratha Roll*: Roll of refined flour bread and *shami kebab*.

*Makhan Fena / Nimish*: A traditional dish made using cream foam, obtained through churning of full cream milk.

*Roomali Roti*: A bread made using buttermilk and refined flour, paper thin in appearance.

*Sheermal*: A traditional bread made using milk, refined flour and *desi ghee*, coated with saffron milk, cooked in a *zameendoz* (Iron) *tandoor*.

*Khameeri Roti*: A leavened bread similar to *kulcha*.

*Taftaan*: A bread made using *Khoya*, *desighee* and refined flour cooked over a griddle.

*Bakar Khani*: A traditional leavened bread which is extremely rich and made using *ghee*, nuts & poppy seeds.

## **AWADHI**

*Chicken Masala*: A traditional chicken cooked in the tomato flavoured brown gravy.

*Chicken Rogan Josh*: A traditional chicken preparation in fiery red gravy, originally obtained from kashmiri cuisine.

*Chicken Rogan Josh*: A traditional mutton preparation in fiery red gravy, originally obtained from kashmiri cuisine.

*Chicken Do pyaaza*: A traditional chicken preparation in thick onion based gravy with sharp flavor of sweet spices and fried onion paste.

*Chicken Korma*: Chicken cooked in white gravy.

*Mutton Korma*: Mutton cooked in white gravy.

*Rizala*: A white gravy based mutton preparation flavored with saffron.

*Kundan Kaliyan*: A leg mutton chunks cooked in dry gravy and then coated with gold leaves. (*Warq*)

*Shabdeg*: A mutton preparation cooked using turnip in a closed *handi* over dum. (Overnight cooking is required).

*Mahi Fish*: Deep fried fish prepared using curd based gravy.

*Khatti Machhli*: Fish marinated in curd and cooked in a tandoor.

*Dolma*: A *bhurjee* like preparation of *paneer*/ mushroom delicately flavored with spices.

*Khilwa Dal/ Mash Ki Dal*: A *dal* made with *dhuli urad*, cooked in milk, delicately flavoured with spices.

*Besan Ki Kaleji*: An imitation of liver of mutton prepared with gram flour.

*Mushroom do pyaaza*: A traditional mushroom preparation in thick onion based gravy with sharp flavor of sweet spices and fried onion paste.

### CAFÉ FOODS & BEVERAGES

**Espresso coffee**: Espresso is a concentrated beverage brewed by forcing a small amount of nearly boiling water under pressure through finely ground coffee beans. Espresso often has a thicker consistency than coffee brewed by other methods, a higher concentration of suspended and dissolved solids, and crema (foam).

**Cappuccino Coffee**: A cappuccino is a coffee drink topped with foamed milk. It is made in a steam-producing espresso machine

**Café Noir/ Black coffee**: (Coffee without milk), **Caf'e au lai't**: (Coffee with milk),

Cold coffee, Cold coffee with ice cream, **Café Frappe**(Cold coffee served with coating ),of crushed ice, **Irish Coffee**( Coffee made with the addition whiskey), Tea, Darjeeling Tea, Assam Tea, Lemon Tea, Ice Tea, Regular Tea, Basil Tea, Ginger Tea, Masala Tea, Kahwa

### SNACKS

**Assorted Sandwich**: Club Sandwich, Grilled Veg Sandwich, Grilled Chicken Sandwich, Garlic Toast, Cheese Toast, Finger Chips, Assorted *Pakodas*, *Paneer Pakoda*, *Gobi Ka Pakoda*, *Pyaz ka Pakoda*, *Aloo Pakoda*, *Dal Vada*, *Dal Ka Pakoda*, **Rolls**: (*Anda Roll*, *Kathi Roll*, *Kebab Roll*, *Paneer Roll*), Assorted *Samosas*, Assorted *Pakodis*.

### BAKERY

**Breads**: *Masala Bread*, Normal/ Plain Bread, Garlic Bread, Milk Bread, Onion Bread, Brown Bread, Buns: Burger Buns, Plain Buns, Pao Buns, Dinner Rolls, Bread Rolls, Bread Sticks, Picknic Rose, Hot Dog: Potato Hot Dog, Paneer Hot Dog, Veg Hot Dog, Chicken Hot Dog, Mutton Hot Dog, Cream Rolls, Cream Horns, Éclairs, Profit rolls

**Cakes**: Butter Sponge Cake, Fruit Cake, Fat less Cake, Fatless Sponge, Cherry Cake, Pineapple Upside Down Cake, Black Forest Cake, Chocolate Cake, Decorated Cakes, Sun Cake, Madiera Cake, Marble Cake, 100 Layer Cake/ Mili Fili,

**Pastries**: Pineapple Pastry, Chocolate Pastry, Eggless Pastry, Decorative Pastry, Vanilla Pastry, Tea Fancies, Strawberry Pastry, Marble Pastry

**Cookies And Biscuits**: Peanut cookies, *Zeera Biscuit*, Coconut cookies, Chocolate cookies, Marble cookies, Melting Moments, Ginger Biscuit, Khara Biscuit, Cheese Straws, *Naan Khatai*, Tri Colour Biscuits,

**Patties**: Potato Patties, Mutton Patties, Chicken Patties, *Paneer Patties*.

### **SEASONAL VENDING**

Roasted *Bhutta*, Roasted Peanuts, Pop Corns, *Layia Chana*, Boiled *Singhara*, Boiled Egg, *Churmura*, Sprout Bean and Gram Salad, *Chikki*, *Rewari*.

### **FRUIT AND FRUIT JUICE VENDORS**

Fruit Juices, Vegetable Juices, Canned Juices, Cut Fruit Salads

### **ICE CREAM AND FROZEN DESSERT VENDORS**

*Chuski*, *Seekh Kulfi*, *Matka Kulfi*, Ice Cream Cups, Softy Ice cream, Ice Cream Sticks, Ice Cream Cones, Ice Cream Bricks, Ice Cream Tubs

### **HALWAI**

There are hundreds of sweet varieties presently sold in the market and therefore it is not possible to give an elaborated list how ever some of them are

*Cham Cham*, *Swandesh*, *Burfi*, *Milk Cake*, *Gulab Jamun*, *Rasogulla*, *Milk Pudding*, *Ras Malai*, *Jalebi*, *Imarti*, *Soan Papdi*, *Sewain*.

### **CHALLENGES FACED BY FOOD VENDORS**

Like many upcoming cities Lucknow is in the grip of sudden and unprecedented urban growth with an increase in the size of city's labor force. As the inner population of the inner city has increased people have settled in nearby townships & localities. People have been forced to change their schedules, tastes and attitudes towards food consumption.

Vending and urban space for micro enterprise constitute an important issue that needs to be analyzed and addressed for this sector. Lucknow being state capital has an average commercial space rate of Rs.3000 / sq ft. Therefore space remains a highly political issue, involving many interests. Since infrastructure development results in rejection of traditional livelihoods conducted on sidewalks and shops, some large restaurants begrudging competition from nearby smaller food vendors may lobby for the latter's suppression.

It is a place where vendors are allowed to ply their trade whether legitimately or not, they do so under inhospitable conditions, with no basic facilities and under constant fear of harassment and damage to their goods.

Concerns of cleanliness and freshness often discourage people from eating foods.

There are numerous challenges faced by these food vendors.

Some of these challenges are written below

- Lack of sufficient capital.
- Lack of preparation area.
- Uncertainty
- Non cooperation by the government authorities.
- Hygiene concerns
- Non implementation of the policies

- Lack of government support.
- High raw material costs.
- Extortion by government officials
- Extortion by anti social elements
- High production costs
- High labor costs
- Lack of knowledge

### Objectives

1. To find out the various dimensions of street food vending in Lucknow city.
2. To ascertain the role of Food vending in promoting tourism
3. To assess the various selling strategies adopted by the food vendors of Lucknow city
4. To assess the various factors which affect the sale of street food.

### Hypothesis

Hypothesis 1:	Null Hypothesis(Ho):	There exists no relationship between the location and the sale of food.
	Alternate Hypothesis(H1):	There exists a relationship between the location and the sale of food.
Hypothesis 2:	Null Hypothesis (Ho):	Type of food has no association with the sale of food.
	Alternate Hypothesis(H1):	Type of food has an association with the sale of food.
Hypothesis 3:	Null Hypothesis(Ho):	Promotion and services have no association with the sale of food.
	Alternate Hypothesis(H1):	Promotion and services have an association with the sale of food.
Hypothesis 4:	Null Hypothesis(Ho):	Maintenance of Hygiene and sanitation standards have no association with the sale of food.
	Alternate Hypothesis(H1) :	Maintenance of Hygiene and sanitation standards have an association with the sale of food.
Hypothesis 5:	Null Hypothesis(Ho):	Street food vending helps in promoting tourism.
	Alternate Hypothesis(H1) :	Street food vending does not help in promoting tourism



### Research Design

A research design is the arrangement of conditions for collection and analysis of data. It is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

### Type of Study

To conduct this research study on “A study on the Street foods served in Lucknow City and its effect on Epicurean Tourism” a descriptive study has been carried out.

**Descriptive research:** Descriptive research is also known as Statistical Research. The major goal of this type of research is to describe the data and characteristics about the object or the topic of the study. This type of research aims to study the various frequencies, averages, and other statistical calculations. This may be noted that although this type of research may be highly accurate, it does not diagnose the causes behind a situation. Descriptive research is best suited in the cases when the researcher wants to obtain a better understanding of a topic. It is quantitative in nature and uses various types of surveys, panels and probability sampling.

**Type of Data Collection:** The Data collected would be primary in nature, as it has been collected directly from first-hand experience.

### Type of Sampling

Since the population size of the street vendors in Lucknow is very huge, therefore it is impossible to survey the whole of the population, therefore a random sampling was conducted on a stratified basis.

A stratified sampling is method of sampling which involves division of a population into smaller groups known as strata. In this type of sampling the strata are formed in the basis of the members' shared attributes or characteristics. A random sample from each stratum is taken in a number which is proportional to the stratum's size as compared to the population. The subsets of the strata to be sampled are then united together to form a random sample.

**Data Collection:** The data was collected on the basis of the observation, questionnaire and interview methods.

**Data Analysis:** The Chi Square test has been employed to validate the hypothesis.

$$\chi^2 = \sum \frac{(\text{Observed Value} - \text{Expected Value})^2}{(\text{Expected Value})}$$

Analysis has been done on the basis of data collected by using tabular and graphical presentation of data. At last the findings have been summarized so that a clear result can be drawn out of the findings, enabling last conclusions and suggestions.

### RESEARCH ANALYSIS

For the research analysis a questionnaire has been designed and in this section the given data has been analyzed with the help of tabular presentations. It has been analyzed using the chi square test and conclusions and recommendations have been drawn based on the same.

Effect on Sale Due to	10-20%	21-30%	31- 40%	41-50%	51-60%	more than 60%
<b>Contributing Factors</b>						
Nature of Vending n= 500	186	129	93	52	28	12
Locationn= 500	17	22	116	107	227	11
By vending on Streets/ Pavement/ Complex/ Parking= 500	26	13	157	67	142	95
Vending near Hospitals/ Offices/Institutions/ Local Market During peak time N=368	18	28	52	117	126	27
Effect on sale due to the pricing offered by the competitors N= 182	8	19	32	42	58	23
Portion Size N= 419	72	102	72	68	76	29
Texture and appearance of the food N=500	19	38	129	86	124	104
Nutritive valueN= 500	136	88	74	40	67	95
Type of preparationN= 500	24	34	136	163	69	74
Quality of Raw materialN= 500	32	56	94	88	148	82
Quality and taste of the final product. N=500	38	46	104	78	168	66
Level of cleanliness of cooking Equipments N=500	72	106	88	136	67	31
Level of cleanliness of cooking Equipments N=500	118	102	98	87	82	13
Presence of Dustbins At The Site Of vending N=500	186	145	82	36	31	20
The Presence of Drainage at the Site of vending N=500	165	125	87	65	40	18
Cleanliness of the Furniture Meant for Seating the Customers n= 86	19	20	18	13	10	6
Clean Surroundings Near The Place Of Vending N=500	43	108	79	186	46	38
Status Of Storage Of Food N = 500	73	168	181	38	27	13
Status Of The Status Of Personal Grooming of the Food Vendor And His Staff n=500	36	45	182	112	96	29
Adherence the teaser name of the business. N= 13	0	0	7	3	2	1
Use Of Glow Signs, Banners Or Display Counters As An Advertising Tool	6	52	153	189	63	37
Type Of Service Offered N= 500	46	72	162	176	68	42
Level Of Customer Satisfaction And Repeat Business n= 294	22	38	89	74	38	33

The duration of the time taken between the order and the service n =500	18	37	72	185	132	56
Use of Phonetic Aids or Announcement to Attract The Customers N = 138	6	17	52	35	19	9
The No of staff employed N = 303	142	74	48	21	15	3
GoodwillN=328	27	49	119	73	41	19

## **FINDINGS & CONCLUSION**

- Street Vending is dominated by the male vendors in Lucknow, which is quite different from the street vending gender ratio in West Bengal which is a Female dominated sector.
- The maximum number of street vendors belong to the age group between 26 to 35 years, which comprises of almost one third of the total population of street vendors.
- More than half of the population of street vendors is illiterate, which is the reason they see street vending as the easiest source to money by self employment.
- Almost whole of the population of the street vendors does not possess any sort of professional certification regarding catering.
- Almost three fourth of the population of street vendors are local people.
- Street vending has a positive effect on promoting epicurean tourism
- Almost half of the population of street vendors has 5-7 dependent members in the family.
- More than 40% of the population has an average Gross sale between Rs. 1000 to Rs 5000, per day which becomes between 30, 000 to 1, 50, 000 per month, making street vending as one of the most profitable sources of money generation, as the average food cost is always less than 40%, making a profit margin of over 60%.
- More than 90% street vendors operate in Down Town Locations.
- Almost 60% vendors operate in New Lucknow City.
- The most preferred location of operation with regard to street vending is the main street followed by footpath.
- Majority of street vendors of more than 66% are mobile vendors.
- Almost half of the street vendors observed a medium level of public movement at the place of
- More than 80% vendors sold Vegetarian food.
- More than 76% vendors surveyed perceived that vegetarian food was the maximally sold food.
- Fast food followed by Awadhi and Mughlai were the most commonly sold food, on the basis of origin.
- Chaat followed by Awadhi and Mughlai, were the most commonly sold food as perceived by the customers

- Majority of vendors, exceeding half of the population, preferred offering medium portion sizes.
- The appearance of the food sold by the majority street vendors was Good.
- The flavor and aroma of the food sold by the majority street vendors was good.
- The palatability of the food sold by the majority street vendors was good.
- The texture of the food sold by the majority street vendors was average.
- Overall food experience of the food sold by the majority street vendors was good.
- Average per portion size offered by majority of street vendors was between 10 to 25 rupees.
- Majority of street vendors employed a cost based pricing strategy.
- Level of cleanliness of the cooking equipments used by majority of street vendors was below average.
- Detergent was used by the vendors as the most preferred Cleaning agent to clean the cooking equipments
- Level of cleanliness of the Flatware, glassware, Service Platters used by the majority of vendors was below average.
- Detergent was used by the vendors as the most preferred Cleaning agent to clean the service equipments.
- Frequency of the cleaning of the service area was twice daily for majority of the street vendors.
- Hard broom was used as the most preferred Cleaning equipment used by the vendors to clean the Service area.
- Majority of the street vendors did not use insecticides or pesticides for keeping rodents and insects away from the Service Area
- Majority of street vendors did not carry out vending near clean surroundings.
- Majority of street vendors carried out vending near Drains.
- More than 60% vendors did not use dustbins at the site of vending.
- Majority of vendors who were having dustbins had only one dustbin kept at the site of vending.
- Majority of street vendors cleaned dustbins twice daily.
- Majority of street vendors exceeding 60% had the provision of water storage with them.
- The majority of street vendors, almost 80% kept uncovered food.
- Majority of street vendors used lids followed by polythene as the most preferred food covering.
- The Status of personal grooming of the food vendors and their his staff in majority of the cases was average.
- More than 98% vendors did not adopt a teaser name to gain publicity.

- The most preferred advertising tool used by the vendors was a banner followed by display counters.
- The average preparation time taken by the majority of vendors was between 1 to 5 minutes.
- In case if the service time was more than ten minutes then the main reasons responsible were the cooking time followed by less manpower.
- Majority of street vendors exceeding 80% used self service mechanism to sell the food.
- Majority of street vendors did not use any kind of phonetic aids to attract the public.
- Among those who used phonetic aids beating the griddle/ wok was the most preferred tool.

### **RESEARCH LIMITATIONS**

In addition to these contributions, our study is not without limitations. First, it was applied to a limited context, drawing upon data on a stratified basis only from a selected group of street vendors as the universe size was too big.

The second challenge was that they do not have fixed vending place and keep on changing their place of operation.

The third challenge was that they were very cautious while answering the questions as they suspected the researcher to be an agent of the local authorities or a competitor.

A high rate of business changeover was also observed and thus the information gathered was limited.

The research could have been better if we had also collected the views of the customers of these vendors which would have given us an idea of the customer expectations, which also has a far reaching effect on the business of these street vendors.

However, in future work it would be better to use additional measures to better capture the other factors that affect the business of these street vendors.

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# 7

## CHAPTER

### Indian Culinary Image & Challenges in Development of Culinary Tourism in India

Nafees Haider Naqvi\*

#### ABSTRACT

*This paper will provide a context on tourism in India from a culinary perspective. India has a rich and diverse culinary heritage, which has evolved as a result of numerous invasions, religious influences, and changing climatic conditions. The cuisine continues to evolve what with the current popularity of Western foods and cuisines. The Incredible Tiffin campaign endeavours to market the country's rich cuisine to the international travel market in an effort to further bolster its culture and heritage segment, and ultimately its brand image. In current times, foreign travellers are presented with a plethora of dining options - from the simple, rudimentary street vendors and highway stop establishments, to the more fanciful specialty fine-dining options available at most upscale hotels.*

#### Paper will discuss the followings:

- a) Culinary Behaviours
- b) Indian Cuisine Image
- c) Culinary Satisfaction
- d) Culinary Challenges Faced by Foreigners

**Keywords:** Culinary Tourism, Heritage, Religious Influences, Diverse Culinary Heritage.

#### INDIA: CULINARY PERSPECTIVES

The aim of this paper is to present an insight on Indian cuisine from a religious and historical perspective, broad culinary regions, the current tourism climate, culinary tourism marketing initiatives, and some of the prevalent culinary establishments. Indian cuisine is as diverse as its people and land. Therefore, the second section includes an overview of culinary regions, which is followed by a discussion on common culinary customs and traditions. The final two sections provide a tourism perspective on cuisine, which include an overview of types of culinary establishments found in India and the growing popularity of culinary tourism in India.

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## RELIGIOUS AND HISTORICAL CONTEXT OF INDIAN CUISINE

In India, “food is a marker of identity; of caste, of class, of family, purity, kinship, tribe affiliation, parity, lineage, religious group, ethnic group, and increasingly of secular group identification” (Srinivas, 2007, p. 85). These enduring associations can be traced back to the country’s long history and religious diversity. Hinduism, Islam, Buddhism, Sikhism, Christianity, Jainism, and Zoroastrianism are all thriving religions in India. Hindus shun beef, the Muslim faith admonishes the consumption of pork, and Jains avoid garlic and onions (in particular, the *Digamber* sect of the Jains). Offering a historical perspective of Hindu dietary limitations, Sei (1998) notes that meat consumption especially amongst the *Brahmin* nobility, was ostensibly considered a sin. Many culinary customs that prevail to this day can be traced back to The *Manu Samhita*, a compilation of Hindu laws during the Buddhist period dating back more than 2000 years ago. The *Manu Samhita* reveals that the consumption of spices was limited to mustard, black pepper, and ginger. Although other spices synonymous with Indian cuisine existed, they were primarily used sparingly and for ritualistic reasons. Religious perspectives notwithstanding, Indian cuisine has evolved over the centuries as a result of numerous external influences.

When the Aryans invaded the Indian subcontinent around 6000 B.C., they displaced the original inhabitants, the Dravidians to the south of India (Dubey, 2011). The invasion had major cultural ramifications, which included a diversification of the prevalent cuisines. Since then, Indian cuisine has continued to evolve as a result of further invasions by the Mughals and Turks, and the colonial rulers from Britain, Portugal, and to a lesser extent, France and the Netherlands. Indian cuisine is now an amalgamation of a multitude of flavours and cuisines and is therefore one of the most diverse cuisines in the world. Nandy (2004) notably claims that “the story of Indian food is often the story of the blatantly exogenous becoming prototypically authentic” (p. 11).

The Mughal emperor, Babur invaded India in the 12th century, bringing with him rich culinary traditions (Sei, 1998). These were primarily based on meat, specifically mutton and generous use of aromatic spices and dairy. The world-famous Tandoori cuisine would not have been synonymous with Indian cuisine had it not been for the Mughals. Banerji (2007) notes that the Mughal influx into India “paved the way for the sumptuous, saffron-tinted, fruit-studded *pilafs* and *biryanis* of the Persian culinary tradition to become part of India’s courtly Islamic cuisine” (p. 251). The British influence in India’s cuisine is also inescapable. Such quintessentially British preparations as cutlets, chops, and soups are now a mainstay in many Indian domestic and restaurant kitchens. The Portuguese can be credited with introducing the famous *vindaloo* curries of Goa, as well as port wine.

## REGIONAL CUISINES OF INDIA

Regional diversity notwithstanding, the curry<sup>8</sup> in its various forms and preparation styles is consumed throughout India. It is thus synonymous with Indian cuisine. However, it is a culinary stereotype that was propagated in part by British expatriates living in India during their colonial rule. From a tourism standpoint, ManishaBhasin, the Senior Executive Chef for the ITC Maurya hotel chain’s statement is fitting – she states that “[f]oreign tourists have a limited idea about Indian food. Unlike other countries the specifications of Indian food change ever 100 Kilometers and with each region, community and ethnic household kitchen” (India Today, 2012, para. 7). The Indian culinary map can be broadly classified as:

Maroney (2011), referring to the *Oxford Companion to Food* confirms that the word, “curry” originates from the Tamil word *kari* and simply signifies a spiced sauce poured over rice.

- **Northern** – various forms of flatbreads (*rotis, puris, parathas*) and *naan* (Tandoori oven-baked bread) accompany a plethora of vegetarian dishes. This area primarily comprises the large and populous state of Uttar Pradesh and is heavily influenced by the Vaishnav Hindus (Nazimiec, n.d.). *Ghee* or clarified butter is the main cooking medium and the principle spices and flavouring agents are nigella, fenugreek, dill, mint, bay leaf, pomegranate, saffron, *garam masala* (a blend of roasted spices), cumin, coriander, fennel, and chillies (Jaitly, 2004).

- **Eastern** – Mustard oil is the widely used cooking medium. Cuisines of this region are characterised by an abundance of fish and other seafood. As well, the fertile Ganges delta is ideal for the growth of paddy, which is thus a staple. Mustard and fenugreek seeds, cumin, fennel, nigella, and black pepper are the commonly spices.
- **Southern** – The flavours of South-Indian cuisine are not as influenced by other cultures as those of the other regions are. Although these cuisines are primarily vegetarian, certain regions (such as the *Chettinad* region of the state of Tamil Nadu) are renowned for their well-developed non-vegetarian dishes as well. The cuisines of Kerala also constitute both vegetarian and non-vegetarian fare. Rice is the staple, and sunflower or coconut oil is the main cooking medium. The flavours that form the foundation of South-Indian dishes are curry leaves, tamarind, red chillies, mustard seeds, and black pepper.
- **Western** – The primary cooking medium is sunflower oil although coconut oil is widely used in the coastal areas. The principle spices and flavouring agents that characterise Western-Indian cuisine are green chillies, coriander, black cumin, tamarind, and asafoetida (Jaitly, 2004). The primary grain component of the diet is wheat, which is used to prepare forms of Indian flatbread such as *chapatti, puri*, and *paratha*.

Although many aspects of the food consumed vary from region to region, the culinary customs followed around the country are relatively uniform. Some of these common customs are:

#### CULINARY CUSTOMS IN INDIA

- **Indians prefer to eat with their hands**, believing that doing so contributes to a more affective eating experience. It is considered impolite to get any part of the hand other than the fingertips stained with food.
- **Indians traditionally sit on the floor when eating.** Although most Indian households now use a dining table, this continues to be a custom in rural areas. Meals served in temples also continue to require patrons to sit on the floor.
- In many parts of India, especially at weddings and religious functions, **food is served on a plantain leaf.**
- **Hindus do not consume beef** as cows are a symbol of maternal love and considered sacred.
- Although meat, fish, and poultry are widely consumed throughout India, **a majority of Indians, are vegetarian.**



- **Indians typically eat several small meals a day.** An early morning light snack and tea may be followed by breakfast later in the morning. A late afternoon tea includes a light snack too. Dinner is taken later in the evening than most Westerners are accustomed to.

### TOURISM AND CUISINE IN “INCREDIBLE INDIA”

Indian tourism was in a state of flux during the latter part of the 1990s and early 2000s as the country's ascent as a global economic power was incipient. The year 2002 saw a 6% decline in tourist arrivals and a 3% decline in foreign exchange earnings from tourism, as compared to 2001 (Kant, 2009). The year 2001 experienced a decline as well, with a 4.2% drop in arrivals and 7.6% drop in foreign exchange earnings, as compared to 2000. The hotel industry also suffered as it experienced a paltry average occupancy of 25% in year 2001. The condition was symptomatic of the prevailing state of global unrest and unease caused by acts such as the World Trade Centre terrorist attacks in New York City, the war in Afghanistan, and attacks on the Parliament House in India.

During such debilitating times, the Ministry of Tourism acknowledged that tourism's potential to bolster India's image in the global stage could be far reaching. Recent years of tourist growth can be attributed to the Indian government's concerted initiatives to galvanise the tourism industry. As a part of this initiative, Amitabh Kant, a key contributor to Kerala's emergence as a prominent ecotourism destination, was appointed as Joint Secretary, Ministry of Tourism in 2002. Referring to the dismal state of tourism in the country, Kant states that he was faced with a “severe crisis” (Kant, 2009, p. 2) during the time of his appointment. In response, he launched the *Incredible India* campaign in 2002. The campaign was a visually rich marketing initiative, aimed at breaking age-old image-related stereotypes and instead, portraying India in a bold and unapologetic light (Joshi, 2009).

Promotional efforts implemented in the last decade have been fruitful for India's tourism industry. Foreign Exchange Earnings (FEE) from tourism increased by 21.8% in 2012, as compared to 2011 (Travel and Tour World, 2013). Foreign Tourist Arrivals (FTAs) also increased in 2012 – a 5.4% increase over the previous year. Culinary tourism may be considered a subset of the cultural tourism sector. India's diverse culinary heritage presents an opportunity to be developed as an important supplemental tourism market segment. The cuisine is both unique and increasing in stature as a world cuisine. Dileep Padgaonkar, the former editor in chief of a leading Indian newspaper profoundly proclaimed that “the diversity of Indian food echoes the idea of India” (Gill, 2012, para. 4).

### THE “INCREDIBLE TIFFIN” CAMPAIGN

Ab Karim and Chi (2010) contend that cuisines that are distinctive and renowned for their taste are well suited to be developed and promoted as a tourism product. In recognition of culinary tourism's potential impact on the tourism economy, the Ministry of Tourism, India launched the culinary offshoot of the Incredible India campaign, aptly christened *Incredible Tiffin* in May, 2012. As V. Sunil, who led the advertisement campaign for Incredible India recently quoted, “we can't sell the Taj Mahal and backwaters forever” (Gill, 2012, para. 6).

In addition to tourism promotions, the initiative also aims to research and document regional cuisines (Budhraj, 2012). A high degree of confidence prevails amongst those involved

with the initiative. The Indian Tourism Minister, Subodh Kant Sahai while attending the campaign's launch in Delhi was fulsome in his proclamation that "this tiffin will surely bring more tourists to India" (para. 7). It is argued, however that the success of this initiative is predicated on the variety and quality of culinary options, in terms of types of establishments, available to the traveller. It is therefore the focus of the next section.

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### CULINARY BEHAVIOURS

Most of the travellers surveyed stated that they frequently enjoyed local cuisines. This is an encouraging finding, considering the plethora of international cuisine options available to travellers to India. The respondents that claimed that they did not try out local cuisines on a frequent basis, offered the following explanations:

An Australian respondent visiting a friend in India testified – "Finding places that seemed accommodating for tourists was limited thus we stayed clear from what we did not know. We experienced some Indian food at the courtesy of hosts when visiting various people/ places, without this I would not have sought out to try Indian food".

The respondent's predicament may be one that many travellers, Indian or international, regardless of travel behaviours and tendencies may experience because there is a dearth of tourism-centric culinary establishments at many tourist spots in India. For instance, the areas surrounding such key tourist attractions as the *Taj Mahal*, *Charminar* (in the city of Hyderabad), and Red Fort or *Lal Quila* in Old Delhi are amongst a plethora of other well-visited tourist attractions with an absence of hygienic culinary establishments. Two more respondents offered explanations for their reasons for not trying the local cuisine on a frequent or occasional basis. Both respondents alluded to the common perception that Indian food is spicy (in this case, used interchangeably with the adjective "hot"). A Canadian traveller laconically stated, "*Our family does not like spice.*" A first-time business traveller to India agreed, asserting that "*I cannot eat spicy food and do not like curry.*"

The most frequented types of culinary establishments were free-standing Indian restaurants, with four-fifths of the total respondents claiming to have visited these. Visiting these, and all the other types of establishments to that matter (with the exception of restaurants located within hotels), would require the traveller to venture out of the environmental bubble of the hotel. Roadside establishments or *dhabas* and street-food vendors were also popular food choices. Indian restaurants within hotels received second-highest visitation. Most three to five-star hotels in India contain at least one full-service restaurant and hence are a convenient and perceivably, safe dining option.

As stated earlier, *dhabas* are the Indian equivalent of the "truckstop" and are full-service establishments that are usually situated on highways or along busy urban streets. Street-food vendors are distinct from *dhabas* because they sell snacks or Indian fast-food fare as opposed to full-fledged meals. These being popular food choices indicates, albeit at face value that international travellers to India are eager to experience local foods in settings that may not be tourist-centric and that have questionable hygiene standards. However, the

caveat that information on the types of foodstuffs purchased (travellers may have primarily purchased packaged foodstuffs from such establishments) at these establishments is unavailable, is important to acknowledge.

### INDIAN CUISINE IMAGE

The results indicate that the perception of Indian cuisine was overall positive. While such a deterministic inference was not the intention of the study, it may be useful for marketers looking to develop culinary tourism in India. Certain attributes received higher agreement frequency scores than others.

From the perspective of the attribute-theme, “taste”, which encompassed overall taste, freshness, spiciness (synonymous with flavour), and heat, it was found that Indian cuisine was perceived in a positive light. Globalisation and migrant diaspora in major metropolitan areas around the world has led to the spread of ethnic cuisines from virtually every corner of the world. Most Western cities are replete with Indian restaurants which is resulting in its growing popularity. Therefore, the strong perception that Indian cuisine is tasty, fresh, and spicy, is unsurprising. The use of a myriad variety of spices is synonymous with Indian cuisine.

Indians and those familiar with the regional cuisines of India would agree that the Western perception (as confirmed in this study) about Indian cuisine being hot is a fallacy. The regional cuisines that are noted for the abundant use of chillies are *Malabari* (cuisine of the state of Kerala), *Chettinad* (from Tamil Nadu), *Andhrite* (from the state of Andhra Pradesh) and those from certain parts of North India. Several regions, particularly cuisines of the states of Northeast India, which are heavily influenced by Chinese and Tibetan cuisines, and Gujarat are not noted for their levels of spiciness. It may be argued that the spices used in Indian cooking has a titillating effect on the palette which tends to be misconstrued for the “hot” perception. “Heat” in the context of food may be described as a “burning sensation on the skin and mucuous membranes, including the inside of the mouth” (Brody, 1983, para. 3). It is a particularly nebulous attribute because its acceptability may be predicated on individual taste preferences. Although there are exceptions such as the *Kathiyawadi* cuisine which is hot even by Indian standards.

The attribute-theme that included more abstract elements related to “novelty” (unique, diverse, and exotic) also received overall positive responses. The uniqueness of Indian cuisine may be attributed to the spices, fruit and vegetables, grains, and cooking methods that typify the cuisine. Because of the many explorers and invasions that have stamped their influence on present-day India, many of the country’s regional cuisines can claim ancestry of other regions of the world such as Mongolia, Persia, China, and Western and Southern Europe in terms of the ingredients used, cooking methods employed, and styles of cooking. This, in addition to high degree of climate variability (and consequently a range of indigenous spices, produce, and meat sources) has also led to an incredible cuisine diversity, which was acknowledged by the study sample.

There is a common perception that Indian food is difficult to digest. The prolific usage of spices, chillies, and *ghee* (clarified butter) can arguably result in the common affliction of travellers’ diarrhoea or “Delhi belly”. Approximately one-thirds of the respondents echoed the perception that prolific usage of the aforementioned ingredients was detrimental to their digestive functions. Therefore, although two-thirds of the respondents agreed that Indian

food is easily digestible, (although a significant percentage of agreement responses “somewhat agreed” suggesting that a majority of respondents were unsure about the digestive properties of the cuisine) it was the attribute that received the least number of agreement responses.

The attribute, “exotic” along with “surprising”, both having received favourable responses, are arguably the most esoteric of the novelty-related attributes because they represent perceptions that are the most likely to vary from individual to individual. In other words and as an example, a foreign traveller from South-East Asia may consider Indian cuisine to be less exotic and surprising than a traveller from Europe. It is maintained that the difference between these two attributes is subtle, albeit crucial. The adjective “exotic” can be conceptualised in terms of degree of difference between cultural artefacts of a distant country in relation to the country of reference which is to the observer, out of the ordinary and unusual, and therefore, striking. “Surprising”, it is asserted, is linked to travellers’ expectations and prior familiarity with a certain aspect of an exotic culture.

Price is a key determinant of a product’s image and the value for money the consumer associates with that product can be conceptualised in terms of the price paid vis-à-vis quality. Price can be especially important in travel scenarios because travellers are typically on a limited budget. Furthermore, food expenses constitute a substantial portion travel budgets. Therefore, the finding that respondents perceive Indian cuisine to be highly favourable from both a price and value standpoint, bodes well for culinary tourism initiatives planned by the Ministry of Tourism.

Finally, respondents’ overall perception of Indian cuisine in terms of “overall good quality”, which as an attribute, represents an amalgam of the fourteen preceding attributes, was overwhelmingly positive. The results echo findings from a study on the perception of Asian foods (including Indian) amongst American patrons of ethnic restaurants in their country of residence (Jang et al., 2007) which revealed that the attributes considered favourable were taste, edibility, and aroma while those recommended for improvements were quality, freshness, digestibility, visual appeal, healthy, and attractive.

## CULINARY SATISFACTION

The results indicate the respondents’ opinion on satisfaction levels with their culinary experiences in India to be overall positive. Satisfaction levels may be an antecedent of pre-travel expectations which in turn could be influenced by such factors as Indian cuisine experiences in establishments outside of India, opinions or information received by word-of-mouth, and through sources such as social media, television shows, and literature.

As confirmed by a cross-tabulation of frequency of visits to India and information sources contributing to cuisine knowledge. Specifically approximately 54% of first-time travellers to India confirmed that word-of-mouth was a key source of cuisine knowledge.

Satisfaction with culinary experiences was measured in terms of five dimensions:

- Service,
- Food Quality,
- Diversity and Authenticity,
- Hygiene,
- Atmospherics, And

The dimensions that received a higher frequency of satisfaction scores were food quality, diversity and authenticity, and overall criteria. The majority of respondents “agreed” with attribute-statements within these dimensions. Although responses for the dimensions of service, hygiene, and atmospherics were all polarised towards the positive, the frequency of agreement responses was lower (a majority of respondents “somewhat agreed” with the associated attribute statements).

### CULINARY CHALLENGES FACED BY FOREIGN TRAVELLERS

At the onset, it is important to recognise that most travellers, particularly to developing destinations such as India, maybe expectant of facing challenges during their travel. Furthermore, challenges faced may not necessarily deter from their perception of the quality of the overall travel experience and in many cases represent the novelty of travel. Travellers’ dominant tendency for neophobic or neophylic culinary experiences may govern the degree to which they enjoy the cuisine in India. The more neophylic-oriented traveller may be more likely to try out less tourist-centric establishments such as roadside *dhabas* and street-food vendors whereas the more circumspect traveller exhibiting less neophylic tendencies may confine himself to less adventurous culinary settings within luxury hotels and other expensive establishments. For the latter type of traveller, cuisine enjoyment in a tourism-centric culinary establishment, as coined by Cohen and Avieli (2004) may suffice from a cultural experience standpoint. Such a traveller may be faced with less daunting challenges and consequently less risk, as compared to the more adventurous neophile.

Another consideration of particular importance is that of the effect of the overall travel experience in perceived satisfaction levels with individual aspects of travel (such as, cuisine, transportation, hospitality received, etcetera). Rimmington and Yuksal (1998) citing Ohja (1982) claim that the link between challenges faced and satisfaction may not be self-evident because variables such as pre-travel expectations and overall quality of the travel experience can play an important role in travellers’ satisfaction levels with specific aspects of the travel experience.

The results revealed that the primary challenges in descending order of frequency of respondents were that of language barriers, hygiene conditions within and outside establishments, service quality, and clarity of menus with each of these challenges garnering more than one-thirds of the sample’s responses. The other noteworthy challenges were that of perceived food hygiene and atmospherics. About one-fourths of the total respondents felt that both these considerations posed challenges to culinary enjoyment. Contrary to the researcher’s expectation, culinary establishment diversity and hot food did not pose a significant challenge.

The most often cited challenge was that of food quality (in terms of taste, freshness, aroma, and presentation). At face value, this result contradicts the finding that respondents were overall satisfied with food quality in terms of taste, freshness, and visual appeal. However, this finding may be justified when viewed in terms of the novelty seeking behaviour of most travellers to India. Moreover, some travellers, particularly those with a propensity for adventure and who are prone to risk-taking behaviour, may equate challenges faced to the overall satisfaction they experience. In other words, and in a culinary context, these neophylic travellers may experience higher satisfaction levels if they were faced with challenges. Comments offered by respondents were particularly illuminative of the nuances of culinary challenges faced.

## RECOMMENDATION FOR CULINARY TOURISM

A primary objective for this study was to determine how likely foreign travellers to India were to recommend the country as a culinary tourism destination. Despite the culinary challenges faced as described in the previous section, a resounding majority of travellers felt that they would recommend India for culinary tourism. This was not a surprising overall response in light of the finding that 86.4% of travellers were satisfied with their culinary experiences in India and that previous research has established that satisfaction is a significant antecedent of travellers' likelihood to recommend a particular aspect of their travels (Kim, 2011; Namkung & Jang, 2007).

To augment this close-ended opinion-scale question, respondents were invited to provide comments in an open-ended format. It should be noted that many of the responses garnered here have congruence with challenges-related comments supplied earlier. However, these comments offer a contextually different lens through which challenges may be viewed – that of recommendation for culinary tourism in light of the probable culinary challenges a traveller may have faced. In other words, the ensuing comments encapsulate a more holistic evaluation of whether travellers would recommend India for culinary tourism in light of their satisfaction levels and the culinary challenges they encountered in India.

A response from a Californian ex-University Dean in India on an extended sabbatical visit was particularly eloquent and perhaps encapsulates the opinions of many foreign travellers to the country. When asked if he would recommend India as a culinary tourism destination, he confessed: The only Asian countries that I could comfortably recommend from personal experience to Western travellers as culinary destinations would be Thailand and Japan. The variety, ingredients, and flavours found there can be enjoyed thrice daily by a Western diner, in my opinion. Also, the level of hospitality and hygiene in these two countries makes mealtimes consistently safe and enjoyable – in multiple-star hotels to the numerous delightful street stands. Moreover, the countries' general level of integrity, politeness, and reliable infrastructure give an overall positive experience to the Western traveller.

A respondent from Spain conceded that India does have the potential to be recognised for culinary tourism although hygiene issues may be a strong deterrent. She attested, *"I would recommend it, but encouraging people to NEVER have other than bottled water and NEVER have any type of raw food (fruit, veggies, etc.)"*.

A German traveller also confirmed, Hygiene standards are far below (standards in Europe). Apart from that, Indian food is a festival of senses, regarding freshness, spices, variety and furthermore, meat is not needed necessarily to complete a dish, thus I strongly recommend Indian cuisine especially for European mouths. Delicious!

Conversely, another respondent who was particularly irked by the strong prevalence of Western-themed restaurants felt the *"perceived need to cater for western palates and that often the food presented was a pastiche of regional styles rather than representative of local and or seasonal specialities, for example "fresh" European fish in New Delhi restaurants"*

Conversely, a traveller from the United States acknowledged the flavour diversity but felt that it was difficult to negotiate. He declared that I have traveled a lot in the past and still found that I was somewhat unprepared for the diversity of flavors contained within Indian cuisine. When I tasted the Rajasthani, Gujarati and Bengali thalis, all in very famous and well-regarded establishments, I was completely overwhelmed by the flavours (particularly

the sweet flavours in all these thalis) and was unable to finish my meal. I had much more success trying the various rotis/parathas/dosas of the various regions, as these were simpler in flavor and I was more able to focus on the different textures of the breads.

The following responses are noteworthy because they directly address the primary trip motivation of culinary tourism: *"It's hard for me to endorse tourism to any country primarily for as a culinary destination. It's certainly a benefit to visiting a place, and India in particular, but I can't relate to traveling solely for food."*

A second-time Indian traveller from Sweden concurred, stating that, *"although I love Indian food I really don't think that is a good enough reason to go all the way to India for food is always an addition to other activities. I would recommend people to go to visit India for it's beautiful beaches, nature and monuments."*

A respondent, hailing from Mexico was also strongly in favour of culinary tourism in India and was profuse in her praise of her culinary experiences in India. She acknowledged that My trip to India was a turning point in my culinary life! I came away feeling like my eyes had been opened – Indian food is now very close to my heart and I'm eager to learn more about regional variations. And I LOVED eating with my hands and sitting on the floor. I loved the close contact with the food and the different textures.

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<b>8</b>
<b>CHAPTER</b>

## **India's Emerging Food Tourism: Promoting Culinary Heritage in the Global Age**

**Salla Vijay Kumar\***

### **ABSTRACT**

*Culinary tourism or food tourism is the exploration of food as the purpose of tourism. A huge segment of travelers, consider dining and food as one of the main activities during their travel (McKercher, Bob, Okumos, Fevzi and Okumos, Bendegul, 2008).*

*India is privileged to have such a vast and varied 'patrimoine nationale'. Traditional Indian cooking has been handed down through generations by demonstrations and word of mouth. This amalgam of skill, history, religion, region etc have influenced Indian cuisine in creating eating habits varying amidst the diversity, myths, delicacies and origin of dishes of the present day from the nomadic tribes. Cuisine orientation is an extension to enhance sustainability in tourism. This permits countries to look at the economic horizon and provide for the environment friendly infrastructure and realize that they can attract this culinary functional activity assembly to their shores. To incorporate one plus point structure into the tourism circuit - the rediscovery of the culinary legacy to create culinary destinations. Destination marketing campaigns around the world have repeatedly shown that there is a strong connection between tourism and food. They have managed to build a very enthusiastic food lovers community, by bringing together the locals' perspectives.*

*Many players in the Indian food business are expanding their arena, to cater to the increasing demand of culinary tourists. People have started valuing the importance of tourism and this has helped to get people's support as stakeholders in culinary tourism market. Government is also taking initiatives to promote culinary tourism through various campaigns like the 'Dabba' project to give tourists the taste of Indian cuisine. The "Incredible Tiffin" project by the Cuisine India Society provides tiffin packaged with local food for people outside the country, to help them get an idea of the choices of food available in India.*

*The research methodology used will include secondary information obtained from the academic and trade literature drawing on reported experiences in culinary sectoral development. The paper concludes with the present scenario of tourism in India along-with suggestions for improving and expanding this sector in the entire stretch of India.*

**Keywords:** Culinary Tourism, Heritage, Food, India.

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## INTRODUCTION

Long ago, merchants traveled the seven seas, looking for foodstuffs to trade. The Indians traded with China, Rome and Egypt. The items they traded were wheat, rice, lentils, chickens, figs, sugar, salt, pepper, cotton, cinnamon and spices. These were the currencies of yore. Today, modern travelers tend to prefer food very much to the local tastes after all the amalgamation of cultures, influence of history, religious sentiments and so called fusion restaurants in place of infested food trade routes.

According to a study the socio-cultural significance of food is gaining the accreditation it deserves (e.g. Arce and Marsden, 1993; Bonanno et al., 1994; Cook and Crang, 1996; Fishwick, 1995; Goody, 1982; Pilcher, 1996; Probyn, 1998; Ritzer, 1993; Seligman, 1994; Sokolov, 1991), as an important part of food tourism (e.g. Bessi'ere, 1998; Cutforth, 2000; Hall, 2002; Hall and Macionis, 1998; Hall and Mitchell, 2000, 2001; Hjalager and Corigliano, 2000; Hjalager and Richards, 2002; Reynolds, 1993; Seydoux, 1986; Wolf, 2002).

Tourism in India accounts for 9.6 per cent of the GDP and is the 3rd largest foreign exchange earner for the country. During 2006–17E, direct contribution of tourism and hospitality to GDP is expected to register a CAGR of 14.05 per cent. The direct contribution of travel and tourism to GDP is expected to reach US\$ 147.96 billion by 2027. Notes: CAGR – Compound Annual Growth Rate, E - Estimates, GDP stands for Gross Domestic Product.

Culture is the combination of traditions and mannerism of life (UNESCO, 2001). Within this framework, Indian cuisine consists of a wide variety of regional and traditional cuisines native to the Indian subcontinent. Various distinct aspects are the type of soil, climate, culture and occupations. The cuisines use the locally available spices, herbs, vegetables, and fruits. Though Indian food is heavily influenced by religion, in particular Hindu, cultural choices and traditions, there is influence of Middle Eastern and Central Asian on North Indian cuisine from the tenure of Mughals. Food tourism is categorized with having a particular type of food or the produce of a specific region (Hall & Sharples, 2003) and encompasses many gastronomic opportunities for tourists (Okumus, Okumus, & McKercher, 2007) as well as involving numerous economic development schemes. Culinary tourism can be found in rural or urban areas and tourists should be available to visit all year round with acceptable food safety standards in many parts of India.

## LITERATURE REVIEW

Culinary or food tourism is defined as the pursuit of unique and memorable eating and drinking experiences (WFTA, 2013). Culinary tourism also referred to as gastronomic or wine and food tourism is a niche area of tourism (Hjalager & Richards, 2002). They focus has been food in culture suitable for tourist consumption but also adds value to the specific destination. Local cuisines represent a destination's traditional intangible heritage, and through its consumption, tourists can get an authentic cultural experience (Okumus, Okumus, & McKercher, 2007; Renko et al., 2010) of food being served and had. Hall and Mitchell (2005: 20) offered various definition of culinary tourism that would include 'visitations to primary and secondary food producers, food festivals, restaurants, and special locations for which food tasting and/or experiencing the attributes of specialist food production as the primary motivation for travel'.

Culinary Tourism as a Destination Attraction: An Empirical Examination of Destinations' Food Image (Shahrim Ab Karim & Christina Geng-Qing Chi, 2010) showed significant positive relationships were found between food image and visit intentions.

A high percentage of travellers, consider dining and food as relevant activities during their travel (McKercher, Bob, Okumus, Fevzi and Okumus, Bendegul, 2008). Progress and emerging issues in Culinary Tourism: A study with special reference to Punjab by Karan Berry Some reasons why culinary tourism should be considered an important aspect of cultural heritage may be enlisted as below:

- Dining is consistently one of the top 3 favorite tourist activities
- Entails all age groups, to all five senses
- Extends to any season and unreachable variety

In light of the pre-existing social and economic ties, regions with particular configurations of natural and cultural capital that allow for the development of geographical indications possess a competitive advantage in the development of local food tourism.

## **THE POTENTIAL ROLE OF FOOD TOURISM**

### **Culinary destination building**

Based from the International Culinary Tourism Association, culinary tourism is the experience of eating and drinking. The segment meant for savoring the world cuisines. The contribution of food can be the key to develop and sustain tourism. The culinary benefits of tourism and the local foods contribute to the destination's economy and enhance sustainability in tourism. The stakeholders should work hand in hand to satisfy the consumer and ensure authenticity of the destination, strengthen the economy and to provide the environmentally-friendly infrastructure of the destination.

### **Promoting Local Food**

The potential of the food can be presented as an icon to which they can identify as a common cultural unifying trait; it can provide India with the incredible brand. This would not only serve as a marketing tool but would help eradicate the notion that local foods are inferior leading to a net export of culinary skills rather than a net import of the same, which has been the case over the years.

### **Employment Generation**

Food service as a generator of jobs and income provides social and economic conditions, which empower individuals to gain access to food, either producing food themselves or earning income to buy food, hence have access to nutritious, safe, and personally acceptable.

### **Environmental Concern**

Culturally appropriate foods, produced in ways that are environmentally sound and socially just. Food tourism according to Gaztelumendi (2012) is capable of addressing cultural and environmental concerns in a way that is compatible with purely economic arguments.

### **Government Contribution**

The policy measures undertaken by the Ministry of Tourism and tax incentives will aid the growth of hospitality industry. For eg., 'Dabba' project to give tourists the taste of Indian

cuisine. The “Incredible Tiffin” project by the Cuisine India Society provides tiffin packaged with local food for people outside the country, to help them get an idea of the choices of food available in India.

### **Eligible Segment Expansion**

The living standard and increasing disposable incomes have continued to support the growth of domestic and outbound tourism. The culinary offerings spans to “silver” tourism segment as a premier category of tourists, closely related relationship management completing the circle.

### **Sustainable Proposition**

Some destinations have taken the sustainability concept to a whole new level and have begun offering health orientated food and drink to today’s consumer who are educated, can afford, has travelled more extensively, lives longer, and is concerned about health and the environment.

### **Indian Culinary Cuisine**

Indian cuisine encompasses a wide variety of regional cuisines native to India. Given the range of diversity in soil type, climate and occupations, these cuisines vary significantly from each other and use locally available spices, herbs, vegetables and fruits. Indian food is also heavily influenced by religious and cultural choices and traditions. Indian cuisine has been and is still evolving, as a result of the nation’s cultural interactions with other societies.

Every region has their story to say owning the existence and maintaining the culinary fervor today; making them eligible for the title of foodie capital. It could count as many countries, as many states more than that are the foodie capitals only in India every nook and corner of the country, state, city, town, village, street, home etc. The importance of staple food crop intensifies in driving and supporting pro-poor growth in poor rural areas of India.

## **METHODOLOGY**

This paper utilizes relevant literature related to culinary tourism.

1. What is the role of food tourism as part of cultural heritage and on the economy?
2. What are the potential roles of food tourism in the Indian culinary cuisine?
3. Why are branding and the use of local foods significant to promote culinary heritage?

The practical aspect of the promotion can be the excellence in the skill based technical education ready-to-deliver budding operational chefs is an amicable manpower to be tapped for the current demand of understanding external customers’ awareness and expectations.

## **DISCUSSION**

### **Unity in Diversity - Food and Culture of India**

The concept of food as a cultural experience in various tourist destinations provides a great opportunity for India. The system of government of India in states closely resembles that of the Union. There are 29 states and 7 Union territories in the country. There are over 700 tribes (with overlapping communities in more than one State) which have been notified under Article 342 of the Constitution of India. The types of dishes are also served are unique. Some of the ingredients and at times the delicacies may appear similar but the way it is

prepared varies greatly throughout India. Food production is by large done using pots cooked over three stones and firewood and in some cases earth or clay stoves. With regards to food service, some communities eat by hand and others often use banana leaves or one big plate where everybody sits around the mat or table or in a row. Like the dialect changes every 3 kms, the food is unimaginable incredible.

### **The Traditionalist Branding Local Indian Food**

The restaurant service providers have an inclination of the local language and menu items to keep up with the branding and make them unique. Destinations patronize the local restaurants and café's. Drinks are a very important part of culinary tourism. The dhokla, the thali, the Kulcha, payasam, pitha, pulihora, dal bati, sarson ka saag, ker sangria and the list has infinite specialties to their credit. Method of cooking – tandoor, griddle plate, kadai, earthenware, heavy bottom pan etc and westernization have brought in innovations in equipment manufacture on the shoulders of the culinary fraternity.

### **The Role of Indian Culinary Service Facilitators**

With presentations and upcoming initiatives - Recipe archive, food trails, clean food Street, food hub, food travel shows, safe and hygienic food festivals, grooming hospitality graduates, culinary fraternity and the Government's collective efforts with numerous stakeholders and entrepreneurs to promote culinary tourism through various campaigns.

## **CONCLUSION AND RECOMMENDATIONS**

This paper has attempted to look at the importance of food and drink in promoting cultural heritage and indeed its contribution to the tourism industry as a whole. Indian cuisines are related by significant usage of vegetables, fruits, dairy, non-vegetarian options, spices, and staple by most other culinary traditions. In addition, a balanced Indian diet is considered one of the healthiest in the world. The current chef's population is large enough to support the retrieval of richness of long-lost well of individualistic state, U.T., community, sect culture.

### **Recommendations**

- To incorporate One-Plus-Point structure into the tourism circuit - inclusions of culinary destinations and upgrade remotest culinary destination's attraction, accessibility and amenities by stakeholders in line with government facilitating policies.
- I suggest the Government of India to set up Indian Culinary Art Museums (in the Official Language, "*Bharatiya Khanpaan Sanskriti Sangrahalaya*") for all states and communities to celebrate the uniqueness. This amalgam of skill, history, religion, region, customs and costumes influenced Indian cuisine creating eating habits varying amidst the diversity, myths, delicacies and the very origin of dishes like tandoori food by the nomadic tribes.
- To create a Research Reserve comprising the hospitality sphere, chefs, food critics, food scholars, food lovers and con food community, to explore and expand "Why Cuisine-Oriented?"
- To create an Educational Resource by thorough documentation - The Master chefs' secret tips and traditional recipes may be followed as a yardstick for authentication, standardization and preservation of Indian culinary legacy.

In financial resources, it is said that companies and societies with more capital are better off than those with less capital. We have plentiful culinary wealthy asset and so much in abundance, we are the best in the global age.

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<b>9</b>
<b>CHAPTER</b>

## **Existing Disparity in Popularising Gastronomic Tourism: A Case Study on Bihari Cuisine**

**Shraboni Puri\* & Manish Pandey\*\***

### **BACKGROUND**

*Bihar, a state with prominent history, owner of one of the most fertile land on the earth and world's oldest university, has unfortunately lost its shine over the last decades due to ignorant administration and internal chaos of the society. Promising talents from various fields and sectors are marking their statement globally in the process to glorify Bihar and its super rich past.*

*Bihari cuisine is a broth of distinguished food culture, of various reigns like Gupta, Mauryan, Turk, Afghan, Persian and European, as Bihar was under their regime, and also great religions like Buddhism and Jainism which flourished in the state, still maintains its distinct style by the use of pungent mustard oil and panchphoran. Also, vegetarian foods and use of seasonal fruits and vegetables holds significant place in Bihari cuisine.*

*However, being the third populous state, Bihar cuisine has not been able to extend its superlative charisma among the food connoisseur.*

### **METHODS**

*The research is based on primary and secondary data. In order to validate and substantiate the primary data, structured questionnaire were circulated and a few sources of secondary data were relied upon. Relevant published information, documentary on Bihari cuisine, and culinary books were referred.*

### **OBJECTIVE**

*The aim of this study is -*

- 1. To examine the cause of disparity between the Bihari cuisine and its popularity.*
- 2. To understand the various methods to make it globally accepted*

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## FINDINGS

*Bihari cuisine has rich culture historically and gastronomically. However, due to Bihar's negative political image, adverse conditions like poverty and emigration, there exists disparity in its present market and reputation. However, with due appreciation over its rich belongingness, we can contribute to win over the situation. This can be achieved through strategic processes and progress via advertising, merchandising, search engine optimisation, organising local delicacies tasting events, incorporating the topic in culinary institutes and word of mouth publicity.*

**Keywords:** Gastronomic Tourism, Bihar, Connoisseur, Merchandising, Culinary.

## INTRODUCTION

The culinary importance of Bihari cuisine can be highlighted by the fact that magnificent history of Bihar is brobdignanian. 3000 years old history, one of the earliest settlements, Bihar remained the frothing ground of excellence, power, art, culture, science, philosophy and learning in India for centuries. From its depiction in Ramayana to Khilji's brutal combat, from Mahatma Gandhi's Champaran visit to Bihari as a trade mark to nonsense, Bihar has witnessed a remarkable journey. Being the 13<sup>th</sup> largest state in India and third most populous state with 38 districts, Bihar is yearning to regain its charm back. One of the earliest settlements showcasing era of golden history of India, Bihar has suffered severe backlashes which has tarnished its mesmerising yesteryears which left her merely as slang. "The Economist" magazine said that "Bihar become a byword for the worst of India, of widespread and inescapable poverty, of corrupt politicians indistinguishable from mafia-dons they patronise, caste-ridden social order that has retained the worst feudal cruelties" In 2005, the World Bank believed that issues faced by the state were "enormous" because of "persistent poverty, complex social stratification, unsatisfactory infrastructure and weak governance". However, the rich amalgamation of geography lined by natural beauty, battery of mythological and historical importance, art, literature spiritual wisdom, home to legends, Bihar remains unstoppable.

Tourism has always been in the platter of extensive Bihar as home to major dynasties and empires, like Mauryas, Guptas, Palas and Suri, oldest university, Nalanda was the gate way to Tibet, China, Korea, and Central Asia, flourishing ground to enlightenment like Buddhism, Jainism, and Entry of British Raj and Portuguese made Bihar a global Village.

As per (Anwar, 2016) as Bihar is situated on the one of the fertile regions of the world which is drained by river Ganga. It was famous for its cotton, textile, and saltpetre and indigo. Hence, it was one of the important trading centres of India from Ancient to Medieval India. This makes reason of enticing for European to open trade factories and centre for trade.

To most Indians, Bihar is backwater says (Usher 2017). The country's turbo charged economic growth is yet to make much of an impact here, with small holder agriculture- tough and poorly paid work- still the back bone of state's economy.

(Rahman 2012) advocated that it is found that lot of work are conducted on marketing, tourism, pilgrimage tourism in Bihar, but no work has been found on the new dimensions of the tourism industry in Bihar and marketing of Bihar Tourism. Since the tourism in Bihar is growing and government of Bihar is planning to diversify tourism, so focus should be the target market and for the same effective marketing strategy required.



According to (Travel News India 2017), the number of tourists arrival in Bihar increasing every year. Whether domestic or foreign tourist, the different tourist destination in Bihar are luring them. Last year the number of tourists visiting Bihar reached on 3 Crores. It has more than 10 Lakh compared to the year 2015. The number of foreign visitors has also increased as reported.

Department of Tourism Market Research Division reported that in the existing trend, both Domestic and n tourists is expected to grow at 6.0 per cent annually. By the year 2021, the domestic Tourist is expected to reach at 1.94 crore and Foreign Tourist at 2.60 lakh respectively. After implementation of the Tourism Development Plan, the Domestic Tourist is expected to grow annually at 7.0 percent with effect from 2003 reaching 2.31 core by 2021 & for Foreign Tourists, it is expected that growth at 7.0 will take place from 2005 and 9.0 percent annually from 2010 reaching 3.83 Lakh by 2021.

#### **SWOT ANALYSIS of Bihar in terms of Tourism**

➤ **Strengths**

1. Plenty of natural and manmade resources which includes mountains, landscapes, forests hot springs and sites like cave paintings.

➤ **Weaknesses**

Lack of facilities to tourists. (Accommodations, public toilets, transportations, networks)

Lack of security & safety measures for tourists which affects the perception & tourism potential of the state

➤ **Threat**

An underdeveloped area with uneducated people causes hindrances in the free movement of the tourist causing inconveniences.

➤ **Opportunities**

A lot to explore in Bihar as it remains ground for development and boutique market. It can lead towards various concepts like:

- Heritage Tourism: The state has an abundance of historical places, Religious Places, Archaeological Sites and forts, which can be suitably renovated and opened up for tourism.
- Health Tourism: Spring sites have tremendous potential for health tourism due to their medical values.
- Entertainment Tourism: Bihar have a great potential for features like; entertainment complexes such as amusement parks, water parks, cable car rides, aquariums, casinos, sound and light shows, etc
- Waterfront Tourism: Bihar has significant potential for water-based tourism.
- Cultural Tourism: Bihar has rich cultural heritage which is exhibited through the various fairs and festivals and dances.

Apart from that, Bihar has the capacity to promote tourism activities like, arts & crafts, urban haat, fair & festivals, waterfront development, health tourism, shopping tourism etc.

## GASTRONOMIC TOURISM

Gastronomy is becoming an important attribute in the development of niche travel and niche destinations. Although the literature supports the view that there is a connection between tourism and gastronomy, little is known about gastronomy tourists, says **(John & Crotsivela 2006)** China, Thailand, Italy and & France have been known for their cuisine. **(Hjalager & Corigliano, 2000)** stated that culinary tourism is an area that has not been studied by many researchers but it could be a crucial segment of the tourism industry. **(Au & Law, 2002)** stated that gastronomy and tourism linked together.

Cuisine replicates the attitude of a state in terms of its way of maximum utilisation of available resources in terms of geography, flora and fauna and also its capability to hold on to its ethnic value while embracing various cultural and religious diversity.

Regional cuisine can be a factor to promote tourism via gastronomic experience in Bihar. In fact it represents an important part of the average tourist budget. A story telling activity is what food does to our senses. Food tourism plays an important role in enhancing tourist experience, regional identity and help in the growth of other area of that region. Gastronomy plays a pivotal role in supporting and sustaining a destination.

Any national cuisine is a sum total of its variety of regional cuisines, which are the cultural and historical identifiers of their respective regions. **(Jain et al, 2015)**

The potential of food as an industry as well as a social, cultural and health commodity is enormous. Food has a connecting power. It can connect people of various ages, culture, religion and social background. It is also one of the oldest industries that contribute to local development and growth. Moreover, food is a cross-sectoral economic activity and is thus closely linked to other activities including tourism, health and well-being, bio economy, safety and security, waste management, transportation and logistics, etc. **(Cavicchi & Stancova, 2016)**

**(Du Rand et al 2008)** argued that analysis of the relevant tourism literature and the promotional material of various destinations indicate that the role of food in the marketing of destinations has until recently received very little attention globally and locally. All indications, however, are that local food holds much potential to enhance sustainability in tourism; contribute to the authenticity of the destination; strengthen the local economy; and provide for the environmentally friendly infrastructure.

All indications are that this attitude is changing and is in accordance with the market trend where tourists want to experience and “taste” the region they are visiting **(Bessiere, 1998; Refalo, 2000)**, an underlying reason being that culture is playing an increasingly important role in tourism and food is one of the key elements of culture.

The contribution of food to tourism has been largely ignored in spite of its apparent importance and potential **(Telfer & Wall, 1996; Handszuh, H, 2000; WTO, 2000)** Furthermore knowledge of the local, regional and national cuisine has become an interest for tourists **(Chappel, 2001; Gallagher, 2001)**. Santich (1998), Macdonald (2001) and Bessiere (1998) report that people interested in travelling for gastronomical motivations are on the increase. In spite of these trends, gastronomy has not been considered for its real potential **(Bernard & Zaragoza, 1999)**, nor exploited conveniently as a tourism resource. It needs to be identified and applied as a branding mechanism for a destination. **(Rand, 2003)** The medley of cultures, geographical inheritance and climate of its own kind, Bihar has lot in its pouch.

## CULINARY ADVENTURE IN BIHAR

Bihar is extensively a fertile flat land bed to several rivers like Ganga, Son, Bagmati, Kosi, Budhi Gandak, and Falgu to name a few. Rajgir hills rules at Central Bihar. The Himalayan mountains are to the north, in Nepal, to the south is the Chota Nagpur plateau, now known as Jharkhand state post 2000.

(Bihar State Report, 2017) revealed that Bihar is one of the strongest agricultural states. The percentage of population employed in agricultural production in Bihar is around 80 per cent, which is much higher than the national average. It is the third largest producer of vegetables and the sixth largest producer of fruits in India. Food processing, dairy, sugar, manufacturing and healthcare are some of the fast growing industries in the state.

The rich fertile alluvial soil of Ganga Basin and climatic conditions of Bihar makes it favourable for agriculture however flood remains a calamity. It is mildly cold in the winter (the lowest temperatures being around 5 to 10 degrees Celsius) and winter months are December and January, It is hot in the summer (40 to 45 degrees Celsius). The monsoon months of June, July, August, and September see good rainfall. October & November and February & March have pleasant climate.

The favourable optimum weather supports rice cultivation making it Bihar's staple food.

As depicted by (Directorate of rice Development, 2014), the eastern region of India which comprises of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Eastern Uttar Pradesh and West Bengal where rice is grown in the basins of Ganga and Mahanadi rivers and has the highest intensity of rice cultivation in the country. This region receives heavy rainfall and rice is grown mainly under rain fed conditions.

Rice is cultivated in all districts of Bihar. Autumn rice, aghani rice, and summer rice are three different varieties of rice grown at three different times of the year. The average production of rice is around 5 million tonnes each year. *Bhat*, *Khichdi* along with *dal*, *tarkari*, *achhaar*, *papad curd*, *ghee* and *chokha* makes the full nutritive lunch box for a Bihari.

The context of rice with characters like aromatic, shiny, flavourful, larger than bean and infinite varieties are prominently prevalent in historical evidences where various quality of rice like mahasali, Sali, Shahpasand, and basmati are mentioned.

*Chivda* or pressed rice served with beaten curd and jaggery or sugar is absolutely simple yet cool to stomach. *Pua*, a dessert by nature and variant of *malpua* seals the lips with delight. *Lai*, *Biryani*, *Pulao* are generous preparations of rice.

Influences of Buddhism and Jainism as Bihar has been the abode to these great religions, Vegetarianism is in usual form, however, various factors like Mughal invasion, Bengal border and availability of raw material can be exhibited in their acceptance to non vegetarianism.

(Makhfi, 2008) shares that the southern part of Bihar, Chotanagpur - home to numerous aboriginal tribes has its share of culinary delights too. A daily diet here consists of boiled cereals, millets and a curry of boiled vegetables or meat or edible roots and tubers seasoned with salt and chillies. Some special tribal preparations are *Asur Pitha* (cake) prepared from the flour of *marua* (eleusine), rice or maize. Asur Khichdi is another dish cooked like rice and called *Sauria Ghata*. It takes two days to prepare the *Korwa Lata* which is made by mixing *Mahua* seeds with *Sarai* seeds (*Sakhua* fruit). *Korwa Jatangi* is a popular dish where *Jatangi*

is fried, pounded and its oil extracted. The residual cake is fried in an earthen pot and eaten as a mixture with *Mahua*.

Various leafy vegetables make *Saag* contributes to iron components and accompanies the main course as *Munga saag* -*Kalmi saag*, *Gandhari saag*, *Koinar saag*, *Chakod saag*, *Sarla saag*, *Chench saag*, *Chimti saag*, *Katai saag*, *Dhhahdhhaa saag*, *Golgola saag*, *Khesaari saag*, *Poi saag*, *Palak Saag*, *Methi saag* in plenty.

Other accompaniments are *kofta*, *panchranga Kofta*, *bharwan karele*, *palak paneer*, *sahi paneer* along with various other milk products like *dahi*, *lassi*, *matthi* used in abundance.

Islamic influences are visible in preparations like *prawns*, *mutton biryani*, *Shahi Jhinga Masaledar*, *Jhorwali Macchli*, *Jinga biryani*, *Bihari kebab*, *Chicken tandoori* and *kela macchli* are few lip smacking non vegetarian preparations.

Wheat's existence is much from platter to plate in the form of *parantha*, and various stuffing like *parantha*, *sattu*, *pyaz parantha*, *posta-dana kaa paratha*, *Dal puri*, *makai ki roti*, *makuni*, *makai ke roti*, *naan*, Famous food

With Bihar, the major connection leads to *Litti Chokha*. According to a report by (Hindustan Times, 2017) *Litti Chokha* made a debut in Manila Word Street Food Congress along with 17 other countries. The remarkable delicacy *Litti Chokha*, savoured by one and all goes beyond definitions. Smeared in *ghee* it consists of wheat and *sattu* with spices, kneaded into round spicy balls, dipped in *ghee* resembles stuffed *bati* from Rajasthan and *Chokha* is prepared by mashing boiled vegetables (most common being potatoes, brinjal, tomatoes), adding spices and chopped onion, garlic etc and served with *Litti* as a complimentary delicacy.

Majorly food cooked in Mustard oil and tempered with *punch phoran* similar to West Bengal. *Thekua*, *Khaja*, *mal pua*, *balushahi*, *pedakiya*, *parwal ki mithai*, *Shakar para*, *Khurmi*, *kala jamoon* are dessert speciality. The usage of flour, *mawa*, milk and dry fruits are in palatable combination.

*Sattu*, a unique source of protein, high on fibre, food for weight check, low glycemic index and a diet for diabetics. It has good proportion of Iron, magnesium, manganese and low in sodium

An absolute energy pack, *sattu* is consumed as *sherbet*, or stuffing to *parantha*, powdered roasted Bengal gram, fulfils the protein need of Bihar.

## METHODOLOGY

This paper is a study of the culinary art and science of Bihari cuisine and despite her evergreen background how much this cuisine has to struggle to make its presence felt in today's scenario. While all the efforts are made to uplift Bihar and its economy, Gastronomic Tourism in Bihar gives a fresh prospective of developing tourism. Google remains the main source of gathering. This study is focused on the reason of the lacuna created in popularising Bihari Cuisine and the various methods to promote it via Gastronomic Tourism. Most of the data and information is being collected from the websites and previous research. The secondary data on Bihari cuisine was extracted from [https://en.wikipedia.org/wiki/Bihari\\_cuisine](https://en.wikipedia.org/wiki/Bihari_cuisine), <https://food.ndtv.com/lists/bihari-food-7-best-recipes-1444683>, <https://www.sanjeevkapoor.com/Allrecipes/Cuisines/Bihari>, Bihar Report, food atlas Bihar, various articles on Bihar's

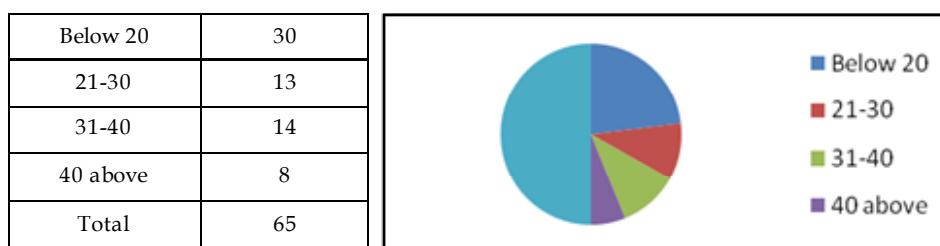
historical, political, economical, geographical and socio cultural parameters. The primary data has been collected through a semi structured questionnaire cum schedule. The sample size collected was 65. A random sample was collected which consisted of habitants of Jaipur, Delhi, Bihari migrants to abroad, Bihari migrants in Delhi. The sample consists of culinary students, professionals from hotels, homemakers. The age varied from 18 to 60.

### ➤ Analysis and Interpretation.

#### 1. Demographic age

Random selection of population has been done based on the interest in culinary world. To this category, cuisine is more than fulfilling appetite but looks forward as key to business.

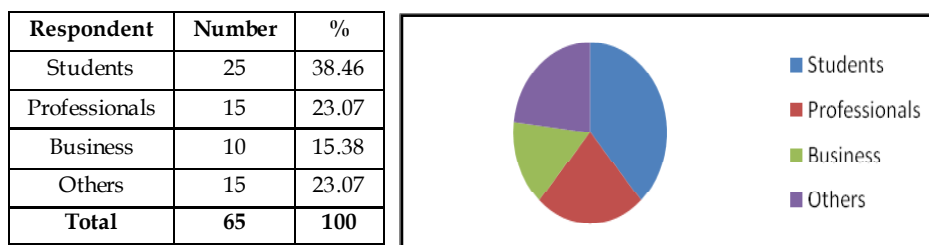
Demographic age:



#### 2. Occupation

The sample population selected are key players in promoting cuisine as they replicate food and beverage occupation and others who are secondary or tertiary buyers of cuisine.

#### Occupation



#### 3. Gender

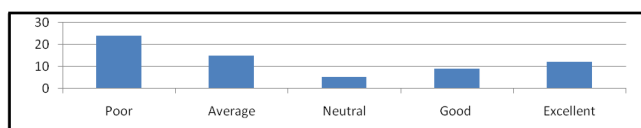
The distribution of male and female is as per the random availability as students, professionals and home makers.



## ➤ Interpretation to Semi Structured Questionnaire

## Q.1 How will you rate Bihari cuisine?

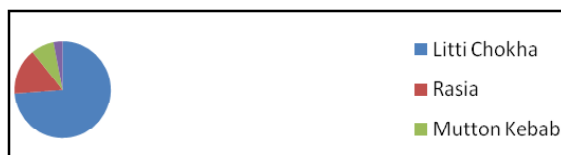
Pattern	Response	Frequency %	Cumulative Frequency
Poor	24	36.92	36.92
Average	15	23.07	59.99
Neutral	5	7.69	67.68
Good	9	13.84	81.52
Excellent	12	18.48	100



From the above table, it can be concluded that approximately 37% of population of population found Bihari cuisine not up to the mark. 23.07% gave the ranking of average. 7.69% had no clue of Bihari cuisine. From this we can deduce that there is severe lacuna about the information in Bihar cuisine and that it is not in reach to people of others states. However, the percentage that ranked 4<sup>th</sup> and 5<sup>th</sup> are those who have roots in Bihar and are aware of the cuisine and enjoys the delicacy.

## Q. 2. Bihari cuisine is famous for:

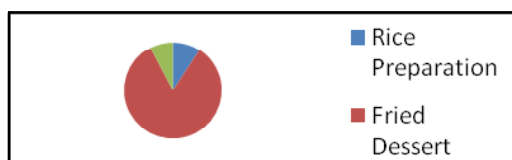
Dish	Response	Frequency
<i>Litti Chokha</i>	48	73.84
<i>Rasia</i>	10	15.38
<i>Mutton Kebab</i>	5	7.69
<i>Saag</i>	2	3.07



From the above table, we can confer that to major chunk of population, that is 73.84% are aware of a dish from Bihar, *Litti Chokha* and that they easily refers to it when spoken about the state. However, *rasia*, a *kheer* preparation used in *chatt puja* is known to the Bihari population *Mutton kebab*, however is less known fact for the rest of the country.

## Q. 3 What is Khaja?

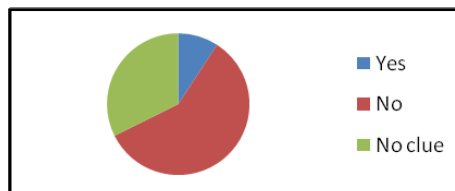
Khaja	Response	Frequency
Rice Preparation	6	9.2%
Fried Dessert	54	83%
Others	5	7.69%



83% of the sample population were aware of *khaja* as a fried dessert dish possibly because it is equally popular in surrounding states of Bihar.

**Q. no.4 Bihari Dahi Vada is different from North Indian Dahi Vada?**

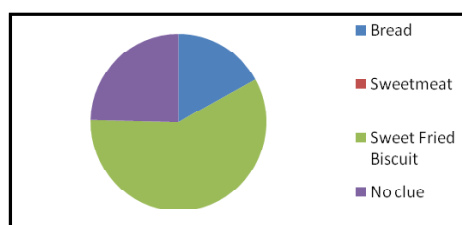
Difference in dish	Response	Frequency
Yes	6	9.2
No	38	58.46
No clue	21	32.30



The above chart displays that majority people are unaware of the culinary details of Bihari dishes. The 9.2% population are those from the culinary field and keeps interest in food detail. However this does not indicate the sign of popularity of Bihari dish.

**Q. 5. What is *thekua*?**

<i>Thekua</i>	Response	Frequency
Bread	11	16.92
Sweetmeat	0	0
Sweet Fried Biscuit	38	58.46
No clue	16	24.61



58.46% of population said *Thekua* was served as *Prasad* during *Chhatt Puja*. This information could be due to migrants celebrating chatt across their borders and popularising their religious belief. 16.92% population thought it was bread whereas 16% people have never heard of it. Nobody called it a sweetmeat.

**Q. 6. Which is the famous festival of Bihar?**

Festival	Response	Frequency
<i>Buddh Jayanti</i>	6	9.23
<i>Chhatt Puja</i>	59	90.76
<i>Makar Sankranti</i>	0	0



90.76% of the population claimed to be aware of the major Bihari festival. 9.23 % connected it to Bihar to Bodh Gaya and thus Buddha Jayanti. *Makar Sankranti* was ruled out from the chart.

**Q. 7. *Handiya*, *Lugdi*, *Mahua* refers to:**

Items	Response	Frequency
Rice Preparation	4	6.15
Flower	2	3.07
Alcohol	39	60
No clue	20	30.76



The above table marks the presence of these local liquors as popular items distinguished by the population. 60 % of the sample identified the local liquor emphasising their strong presence and popularity among people.

**Q. 8. Makhana is famous in which district**

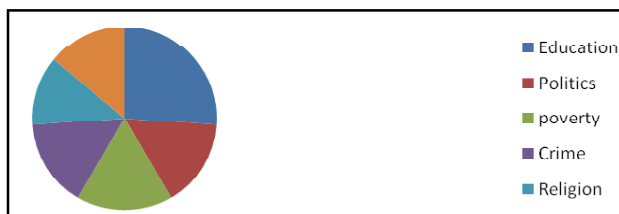
Makhana	Response	Frequency
Champaran	17	26.15
Madhubani	8	12.30
Bhagal pur	4	6.15
No clue	36	55.38



55.38% population had no idea of the relation of *Makhana* with any of these districts. 26.15 % got it connected wrong with Champaran. Only 12.30 % said it was from Madhubani, showcasing a poor status of awareness.

**Q.9. Bihar in one word – – – – – .**

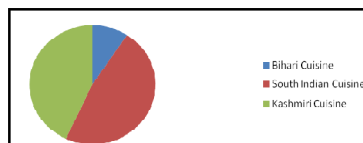
Pattern	Response	Frequency
Education	17	26.15
Politics	10	15.38
poverty	11	16.92
Crime	10	15.38
Religion	8	12.30
No clue	9	13.8



As per popular belief, Biharis are considered intelligent and knowledgeable but its involvement in politics and negative image due to aftermath of politics over powers the positivity of Bihar.

**Q.10. Which cuisine do you prefer**

Preference	Response	Frequency
Bihari Cuisine	6	9.23
South Indian Cuisine	31	47.69
Kashmiri Cuisine	28	43.07



Out of the three options, 47.69% of population selected the most known South Indian cuisine followed by Kashmiri cuisine. Preference for Bihari cuisine was only 9.23% which shows the lack of its popularity.

**CONCLUSION**

Bihar, once the land of golden opportunities and melange of knowledge, culture, heritage, rich history, source house of religion, geographical plethora of abundance has been reduced to merely Bihari as slang. Land of royals to land of intellects had been pushed as back



waters under the unfortunate governance by British rulers followed by the declination led by post independence Central Government policies further supported by natural calamities like flood that broke the spinal cord of Bihar. The third populous and 13<sup>th</sup> largest state has in plenty to offer in terms of tourism as it speaks in volume of its possessions back in history to volume of it restored in presence. With 3000 year old saga, Bihari cuisine has ample variety that is curiously seeking for recognition from the rest of the world. The impeccable combinations of flora and fauna in Bihar make the food and beverages delight worthy of fair treatment rather than a step child torture of ignorance and arrogance from the rest part of the country. General opinion about Bihar and its cuisine as studied in this research found to be lack of information and interest in general public. However, by making cautious efforts, Bihar and Bihari cuisine can gain their prominence back in the heart of food lovers and get appreciation for the unbeatable platter of super delicious nutritive dishes ready to reveal.

## RECOMMENDATIONS

**India Brand Equity Foundation, (2017)** announced that the state has planned initiatives for the development of other sectors such as education and tourism and also provides incentives for information technology and renewable energy.

While various Schemes are being activated by State Government in the overall upliftment of Bihar and her reputation, Bihar State Tourism Development Corporation should penetrate into the core of travel experience of a tourist and that is food.

1. Introducing Bihari cuisine in 2<sup>nd</sup> year syllabus of Food Production (regional cuisine) of NCHMCT&AN so that the budding hoteliers and chefs are aware of the Bihari cuisine and work towards modifying them and redefining them.
2. Promoting Bihari cuisine by live workshop in events like AAHAR and various culinary forums and competitions
3. Conducting Bihari Food festivals in star category restaurants in order to promote and create acceptability in market in order to reach out to creamier segment of patronage.
4. Conducting Golgappa fest with multiple variations like Biryani fest to promote snacks with healthy options and leading towards innovations.
5. Introducing snacks and desserts in Wedding menu.
6. Making the Bihari dishes approachable to Tourist even in other states as enjoyed by other cuisine like Punjabi and south Indian.

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<b>10</b>
<b>CHAPTER</b>

## **A Study on the Food Handling Practices and Hygiene Status Amongst the Street Food Vendors in Delhi**

**Vikas Gupta\*, Dr. Kavita Khanna\*\*  
& Dr. Raj Kumar Gupta\*\*\***

### **ABSTRACT**

*Delhi is a prominent market for the vending of street foods thus offering a delightful food experience to its daily consumers. The aim of this study is to present the challenges and issues related to street foods in the different areas of Delhi. In this paper were analysed the characteristics of street foods with emphasis placed upon food security, nutrition, food safety and food handling practices followed by the street food vendors in Delhi. The study will also include a general physical examination of 100 street food vendors to understand the practices they follow while handling food. The role of local government in regulating this trade and other important aspects such as food licencing, availing the potable supply of water for the vendors, demarcation of vending units, provision of identity cards, etc. are also discussed in detail. The study will also discuss the glaring areas of deficiency and concern regarding the provision of safe foods to the consumers of Delhi by the street food vendors. Environmental conditions around the food vending sites are also studied in detail and the details regarding the areas of infestation are presented systematically in this study.*

**Keywords:** Food hygiene, Food licencing, street foods, Sanitation, Street Vending.

### **INTRODUCTION**

The 'Street foods' or 'Street-vended foods' are the food and beverages prepared and sold by vendors in streets and other public places for immediate or a little later consumption without processing or preparing it further (WHO, 1996). These street foods are usually inexpensive, convenient and often nutritious besides being a major source of income for a vast number of vendors. Thus, it provides a chance for self-employment and provide an opportunity to develop a small business with low capital investment (WHO, 1996). Street foods are a source of culturally accepted, inexpensive, convenient and often appealing foods for both urban and rural populations worldwide (Namugumya, Bs and Muyanja, C., 2011).

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Despite having many benefits, street vended foods often pose health risk to consumers if not prepared or served hygienically. Food safety is a broad term that incorporates several conditions, which include the handling, preparation and storage of foods in terms of preventing foodborne diseases, i.e., illness caused by the bacteria or other microorganisms, including toxins in foods (WHO, 2010). These street foods largely do not meet proper hygienic standards and can therefore lead to morbidity and mortality due to food borne illnesses, and concomitant effects on trade and development (DeWaal, C. and FAO, 2017). Further, the prevalence of food-borne illnesses is intertwined with other economic and developmental issues, namely, legislation, infrastructure and enforcement mechanisms. Specific examples include inadequacy of food safety laws, laxity in regulatory enforcements, and the lack of education for food handlers (Dewaal, C., 2017).

To make the matter worse for the street food vending, the improper hygiene, sanitation and food handling practices performed at these vending sites have been complemented with unavailability or under availability of potabledrinking water for cooking; miserably managed spaces for cooking and washing of raw food supplies and utensils; washing hands and dishes in buckets and bowls; and some other commonly observed unhygienic practices adopted by the street food vendors.

In most cases, leftovers are not handled properly by the food vendors which thus attracts pests such as rodents and insects and increases the chances of food contamination and thereby multiplying the risk of food borne hazards (Mensah, P. et.al, 2002). Since the points of sale of the mobile vendors that sell foods in the streets usually do not have the same facilities as available in formal shops, street foods also include those factors among others responsible for foodborne diseases (Samapundo, S., et.al, 2015).

Despite these alarming statistics, very limited research has been conducted so far to study the issues related to street foods in Delhi and correlate them with the food handling and hygiene practices of the food vendors. Aim of this study is to present the issues related to street foods in Delhi. This study will also examine the hygiene status and food handling practices followed by the street food vendors in the study area.

## **OBJECTIVES OF THE STUDY**

- To study the issues and challenges related to street foods in Delhi.
- To study the food handling practices and hygiene status among the street food vendors in Delhi.

## **RELEVANCE OF STREET FOODS IN DELHI**

Street foods play an important socioeconomic role in meeting food and nutritional requirements of Delhi consumers at affordable prices for the lower and middle income groups of the area and are appreciated for their unique flavours and convenience (M.Ackah, et.al., 2000). Street foods also assure food security for low income urban population and livelihood for a significant proportion of the population in the down town areas of Delhi. The mobile street foods practice is one of the multiple survival strategies adopted by poor urban households to maintain and expand the base of subsistence incomes especially in the surge of economic crisis (C, Acho-Chi., 2002). Street foods are described as wide range of ready-to-eat foods and beverages

prepared at home and consumed on the streets without further preparation or with a very little preparation (Rane, S., 2000).

Delhi has a high population density and is bustling with large number of street food vendors selling their produce in every corner of the region. The variety of street food varies from the authentic Indian and foreign jaw dropping food mixes to rather manipulated and exploited food stuffs sold as fusion street foods.

In Delhi, the street foods have become integral part of the culture and urban life. Most of the times people specially office going population are forced to consume these foods during lunch time due to their proximity being far away from their home and these are the easily available food options at an economical price. In contrast to these potential benefits, it is also recognized that street food vendors are often poor, uneducated, and lack knowledge of safe food handling, environment, sanitation and hygiene, mode of food display, food service and hand washing, sources of raw materials, and use of potable water (Bhowmik, S, 2010).

In India Food Safety and Standards Authority of India (FSSAI) and the State Food Safety Authorities are the main regulatory bodies for the purpose. Besides, the Union Government has also notified the Street Vendors' (Protection of Livelihood and Regulation of Street Vending) Act, 2014. It has the provision of "Town Vending Committees (TVC)", a decision-making body. Five TVCs are proposed in Delhi - one each under the East, South, North corporations, Delhi Cantonment Board (DCB) and the New Delhi Municipal Council (NDMC). The new Act will streamline the entire street vending system in Delhi as there will be a concrete list of registered vendors (NASVI, 2016).

#### **FOOD SECURITY AND NUTRITIONAL ISSUES CONCERNING STREET FOODS IN DELHI**

Although the trend of street foods presents numerous problems in Delhi, yet some benefits related to nutrition security have also been reported, such as the strengthening of traditional and regional food practices; an economical, fast and convenient way to consume food by people of low socio-economic status; an appealing way for tourists to find regional cuisine, due to the varieties of regional foods on offer; an important source of income for a large number of people; and a chance for self-development and the opportunity to grow into a private business without the need for huge capital investment (FAO, 2001 and Calloni, M, 2011). But, the street foods trade in public places can be a potential vehicle for foodborne diseases, due to the facility of food contamination with pathogenic or non-pathogenic microorganisms (Feglo, P and Sakyi, K, 2012).

The poor production conditions and marketing of the street foods exemplified by using cheaper raw material of dubious quality, as well as the lack of nutritional knowledge and food safety on the part of the food handlers, compromises the nutritional quality and sanitary hygiene of food. In fact, the nutrition security of street foods has been one of the major concerns for public health, since the potential for no safety or no sanitary handling food by mobile street food vendors is common (Mamun, M, et.al., 2013). Street vended foods are usually produced in small mobile units (e.g., trailers, push carts and canopies) from where the foods are sold. These points of sale usually have an inadequate layout and equipment, poor environmental sanitation, improper food handling and storage practices, as well as low quality of raw materials (Manguiat, LS and Fang, TJ 2013).

Preventive measures such as, for example, sanitary health education of the vendors as well as the population, are identified as strategies for reducing the cases of foodborne diseases. The public authority's actions of inspection and regulation, complement it as well as contribute to the nutrition security of the population (FAO, 2013). Proper care in the handling of food is an important step in reducing the incidence of foodborne diseases, especially for perishable foods. In addition, identifying and assessing possible toxicological risks would allow a more effective protection to the street foods system by addressing other relevant preventive actions (Proietti, 2014).

As this study is conducted in some limited selected areas of Delhi to understand the issues related to street foods in the region, three distinct categories of street foods have been identified for the purpose, i.e., food prepared in small factories and sold by street vendors; food prepared at street vendor's home and offered for selling to the public; and food prepared and sold on the street. Often, the foods are sold by street vendors at low cost and at easily accessible locations, such as streets, shopping markets, bus terminals, parks, outside schools, hospitals, metro stations, etc.

## **METHODOLOGY**

This study is an examination of the food handling techniques and the food safety measures taken by the street foods vendors in selected areas of Delhi. The study has been conducted specifically to collaborate the finding of all the areas of Delhi including South, North, West, Old and Central Delhi. The selection of areas was done based on average customer footfalls. The areas specially the famous markets of Delhi were selected for the study as these are the hubs for selling street foods. The street food vendors selected were both from the upscale markets selling their produce from proper covered shops and the poor self-employed vendors serving food near the markets, metro stations, parks, hospitals and on the streets.

## **SAMPLING AND DATA COLLECTION**

The selection of street food vendors for this study was based on Simple Random sampling and a sample size of 100 street food vendors was taken for closed observation and distribution of questionnaires. The sample size was finalised depending upon the footfalls of the customers in the street food vending sites and the choice of street foods joints in the area.

Data collection was done through a semi-open-ended questionnaire specifically drafted to collect all the relevant data for the study from the street food vendors. One on one interviews with all street food vendors were also conducted to record adequate and brief information for the study. It may be mentioned here that as most of the vendors were not much educated and had not much spare time for this uncalled-for job, the questionnaires were filled up based on oral answers given by them at the point of sale while they were performing their regular food vending work. This study applied location intercept techniques because these techniques offer maximum response rates (Malhotra, 2008).

The most effective data collection method for this research was the face-to-face survey or interview (Doyle, 2005). This method allowed the maximum flexibility in the data collection process compared to the other methods. In addition, a wide variety of questions can be asked in a face-to-face interview because the respondents can see the questionnaire and an interviewer is present to clarify ambiguities (Malhotra, 2008).

The street vendors were selected purposively based on accessibility, availability and willingness to participate in the study. In some cases, many incomplete questionnaires were found by the researcher. Such questionnaires were not considered worthy for further analyses and were rejected.

### QUESTIONNAIRE DEVELOPMENT

For this study, only one set of questionnaires was prepared to collect responses from the street food vendors. The questionnaire consisted of 3 parts. The first part dealt with the demographic and socio economic profiling of the street food vendors such as age, sex, education level, employment history, daily earnings, history of any kind of major illness, and tendency towards personal habits such as smoking and drinking.

The second part consisted of dichotomous questions on the routine practices followed by the street food vendors including food handling and preparation techniques, use and availability of potable water for food preparations, washing of utensils, storage of raw materials, environmental conditions of the vending site, temperature control and other related questions. Dichotomous questions are the easiest type of questions to code and analyze (Hippler, Schwarz, & Noelle-Neumann, 1989).

The third part was based on the basic physical examination of the street food vendors including the physical check of hairs, nails, fingers, lips, teeth, etc. The street food vendors were asked dichotomous closed ended questions to record their responses on 8 items regarding their physical health and hygiene. Observations were recorded simultaneously for further examination and data interpretation.

Pilot study was conducted for checking the suitability and effectiveness of the questionnaire and to make any further required modifications. Minor adjustments were made in the structure and format of the questionnaires for better quality and understanding and for the ease of data collection.

### DEMOGRAPHIC PROFILING OF STREET FOOD VENDORS

The Street food vendors are a self-employed category of small entrepreneurs who are not dependent on any institutional structures to find their livelihoods. The earnings from their business enterprises are a means of livelihood for the vendors themselves and their dependent family members. A reflection of the socio-economic background of the street food vendors is presented below:

- (i) Both males and females and married and unmarried are in the business of street food vending. Their age ranges between 25 to 60 years with majority being in the age group of 30–40 years.
- (ii) Most of the street food vendors and their families come from rural backgrounds and have moved to cities for financial earnings or else live in rural areas and travel on daily basis to the city for their business.
- (iii) Education level amongst the street food vendors is comparatively very low and for majority the education level ranges between 5<sup>th</sup> to 8<sup>th</sup> grades.
- (iv) Employment history shows their previous involvement in several urban-based, irregular and low-paid income generating activities, which required hard manual labour, prior to their involvement in the street food business.



## **DATA INTERPRETATION AND RESULTS**

The study conducted in the different areas of Delhi for about 100 street food vendors has got some astonishing findings. It was found that majority of vendors interviewed (79%) were below the age of 35 while the rest (21%) vendors were above the age of 35 years. Moreover, majority of street food vendors (92%) were males. It was also found that most of the vendors were from outside Delhi (61%) majorly from Uttar Pradesh and Bihar. Some were also from states like West Bengal and Orissa. The rest 39% food vendors were permanent residents of Delhi. Majority of street food vendors (63%) were found to be illiterate and only 37% were vendors who have studied till matriculation or above.

Regarding the income of street food vendors in Delhi, it was found that 41% earned a daily income between Rs201 to Rs300, 32% daily earn between Rs.151 to Rs200 and rest 27% earn less than Rs150 on daily basis. The per capita income of these vendors was also calculated and it was revealed that majority of street food vendors (76%) have a per capita income of Rs. 35 or more on daily basis while the rest 24% street food vendors have a per capita income of less than Rs. 35 on daily basis. Among the food vendors studied, majority of the vendors (57%) were in this profession for less than 1 year while 27% vendors were in the profession for 1-2 years and rest only 16% vendors were selling their food articles for more than 2 years in Delhi. It was also found that most of the street food vendors (72%) sell their products on small movable kiosks or push carts, 11% on floors, 9% in proper covered shops and rest 8% on head.

Regarding the site of food preparation, it was found that majority of vendors (64%) prepare their food at site while the rest 36% vendors partially or fully cook their food products at home or factory and finalise the preparation at site of selling. It was also found that most of the vendors (58%) use food flavours both natural or artificial as an ingredient in their produce while the rest (42%) prepare food without adding any food flavours. In this study, it was also found that the most popular methods of cooking were deep frying and charcoal grilling. Steaming and boiling methods of food preparation were also used for some street food preparations.

It was also examined that most of the vendors (79%) serve prepared food without a delay and only 21% respondents sometimes keep the food for 2-4 hours before selling it to the consumers. But, it was seen that most of the street food vendors (64%) do not use proper utensils for storing the food items. Food items were either stored in polyethylene bags or plastic buckets which were not having proper lids for covering the food. Rest only 36% food vendors have kept the foods in proper containers for storing the food items to be sold. It has also been noticed that a significant number of vendors were smokers (76%). It was observed that most of these vendors do not wash hands after smoking (53%).

A significant proportion of the street food vendors (56%) did not use separate utensils for cooked and raw food whereas rest 44% were found to be following proper practices. It was also noticed and observed that majority of the street food vendors (82%) did not wash their utensils properly and only a fraction (18%) of vendors followed this practice properly. The reason behind this is given to the limited space available for food vending and non-availability of potable water at the location. It was also observed that most of the street food vendors (64%) were not wearing proper clothing and their clothes were very dirty to handle any kind of food product. The rest 36% vendors were wearing clean clothes while handling food.

**Table 1: Observations Regarding the Food Handling Practices Followed by Street Food Vendors of Delhi Region (n=100).**

Observations	Frequency	Status
Use of separate utensils for storing raw and cooked food	44	Yes
	56	No
	00	Not Applicable
Proper washing of utensils before cooking or storing food	18	Yes
	82	No
	00	Not Applicable
Wearing of clean clothes/ uniform among the vendors	36	Yes
	64	No
	00	Not Applicable
Washing hands after smoking	23	Yes
	53	No
	24	Not Applicable
Disposal of garbage	57	In the bins
	43	Open on road
Use of potable water for cooking	26	Yes
	74	No

Source: Author

The low level of personal hygiene of the street food handlers can be a major cause of food contamination and can lead to food poisoning. With regards to the personal hygiene, it was observed that about half of the vendors (43%) do not dispose of their garbage properly and they leave the garbage open on the roads after closing for the day. The excuse given by majority of vendors was that the garbage is collected early morning by the garbage van in the area and they are paying for it. Only 26% of the vendors use potable water for cooking while the rest use MCD supply water or underground water which is not purified to be used for cooking purpose.

The general environmental conditions where the food is served by the vendors were also studied as a part of this study. It was observed that majority of food vending sites (61%) have the presence of dirt, dust and particulate matter.

**Table 2: Environmental Conditions of Food Vending Place (n=100)**

Observations	Frequency	Status
Presence of dirt, dust and particulate matter	61	Yes
	39	No
Presence of Pests such as insects, mosquitos, rodents, etc.	57	Yes
	43	No
Presence of vehicular pollution	74	Yes
	26	No
Presence of open uncovered garbage and waste	62	Yes
	38	No
Presence of open draining water	42	Yes
	58	No
Presence of street dogs and other animals	72	Yes
	28	No

Source: Author

Moreover, most of the food vending sites (57%) were infested with pests such as mosquitos, insects, rodents, lizards, etc. It has also been noticed that most of the vending sites have the presence of open uncovered garbage (62%) and found to be near open draining water (42%). Majority of the vending sites were also having the presence of stray animals such as dogs, cats, cows, etc.

A general head to toe examination of street vendors was also conducted to know about their health and nutritional status. It was found that most of the food vendors (63%) were having anaemia on clinical examination. The hairs of most of the vendors were dirty (69%) and not combed (79%). Moreover, most of the vendors' (74%) hairs show infestation of lice.

**Table 3: General Health Observation of Street Food Vendors (n=100)**

General Health Observations	Frequency	Status
Clinical Anaemia	63	Found
	37	Not found
Cleanliness of Hair	69	Dirty
	31	Clean
Condition of Hair	79	Not combed
	21	Well Combed
Lice infestation in Hair	74	Found
	26	Not found

Presence of wax in ears	83	Found
	17	Not found
Nails	72	Not manicured
	28	Manicured
Palm/Hands	43	Clean
	11	Boils/wounds
	46	Dirty
Nose	36	Running nose
	64	Alright

Source: Author

On thorough general examination, it was found that ears of majority of vendors (83%) have the presence of wax. Nails are also not manicured properly in majority of the cases (72%). The hands of majority of the food vendors were found to be dirty (46%) or having boils and wounds (11%). A third of the vendors (36%) were also having running or blowing nose.

To relate the personal hygiene with the food handling practices followed by the street food vendors in Delhi, a scoring scale has been devised for this study. In this system, for every correct food handling practice followed by the vendor, 1 mark is given and for every incorrect practice 0 mark is given. The scores were given for a total of 18 identified practices related to personal and food handling hygiene of vendors. If a vendor is following all 18 practices correctly, then he/she can score a maximum of 18 marks. But, if a vendor is following all incorrect practices, he/she will score 0. Based on this scale, the personal and food hygiene of the street food vendors is categorized in 3 categories; if the vendors scored between 0-6 they are classified having poor hygiene practices, if the scores are between 7-12 they are following moderate hygiene practices and if the scores are between 13-18, it means good hygiene practices are being followed by the vendors. After studying the scores, it was found that around 79% food vendors were following poor hygiene practices while 12% were following moderate and only 9% vendors were following good personal and food hygiene practices.

## CONCLUSION

To improve the status of street food vendors and to make sure that the food sold does not jeopardize public health, the first and foremost necessity is to build awareness amongst the food vendors that they should maintain certain mandatory levels of foodsafety standards. To break the vicious cycle of unsafe food handling, local government need to embrace the street food vendors as a dynamic economic sector. Vendors should be given some basic training on how to safely prepare and store food and their businesses should be certified accordingly by the local governmental food regulating agencies.

Municipalities should provide the vendors with appropriate infrastructure like access to clean potable water and sewage systems. The street food vendors should be encouraged to take part in the food security and handling awareness raising programmes and be given access to micro credit for their personal finances. In addition to helping the vendors run their business in a more efficient and safe manner, cooperatives would also ease the authorities' work in enforcing hygienic and business standards.

## **DISCUSSIONS AND FUTURE IMPLICATIONS**

In this study, it was clearly examined that there is an urgent need to regulate this trade on urgent basis by the government so that food safety is ensured and serving of contaminated food to the consumers is avoided. This study shows several areas of glaring deficiencies and concerns regarding the food handling practices and nutritional status of the street foods in studied areas of Delhi. With the street vending operations becoming a necessity of time, it becomes imperative for the government to take adequate measures to regulate the activities of the street food vendors and provide them with healthy and safe working environment for trade.

It is suggested and advocated that a mobile court to monitor street food vendors should be introduced and civil society organizations or NGOs should emerge to promote awareness about importance of the safe street foods and overall food safety environment among the street food vendors as well as the consumers. The electronic and print media should also be involved in creating awareness about safe street foods among general public by releasing advertisements, articles on safe food handling practices and personal hygiene on regular basis by the regulatory authorities.

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# **SECTION II FOOD, RELIGION AND AYURVEDA**

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<b>11</b>
<b>CHAPTER</b>

## **A Descriptive Research on Traditional Fermented Beverages of India: Special Focus on “Therapeutic Indigenous Offerings”**

**Shrivastav, Aayushi\*, Bakshi, Neetesh\*\*  
& Kumar, Amol\*\*\***

### **ABSTRACT**

*The Indian subcontinent and specifically India has a legacy of rich culture. Most importantly, the database of the traditional knowledge maintained by the Indian Patent Office, Government of India provides an indication of huge legacy of many traditional knowledge, specifically, fermented food and beverages used by the native Indian over last 500-1000 years. In India, making use of fermented food and beverages using local food crops and other biological resources are very common. Because of the huge diversity of the country, the nature of the products and the base material vary from region to region. Fermentation has been used for a long time as an effective and low cost means to preserve the quality and safety of the foods and beverages. Particularly, in the context of fermented beverages, the western countries used to prepare various types of beverages using barley malt, as a source of starch and saccharifying agent.*

*In contrast in India, ragi, rice and barley are mostly used as starch and saccharifying agent in the preparation of Indian traditional beverages. A number of alcoholic and non alcoholic beverages are prepared and consumed by indigenous people of India. For example; the rice beer called "jhara" is extremely popular among the tribal inhabitants of West Bengal. During the preparation of "jhara", various herbal plants and their parts are used to produce sweetness, bitter taste, colour and also act as preservative. Another popular example includes jackfruit wine which is an alcoholic beverage made by fermentation of jackfruit pulp. It is a social and tribal beverage and has characteristic pungent aroma and flavour. The tribal people of Nagaland, Tripura and other eastern hilly areas of India consume the jackfruit wine. Likewise, another very popular fermented beverage is Fenny. It is a type of distilled alcoholic beverage, which is made from coconuts or from fruit pulp of cashew. It is registered as a Geographical Indication (GI) by the Government of India.*

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*Needless to say, the Cashew fenny is unique to Goa and popular all over the country. Above are the few examples used to describe the traditional fermented beverages of India. In the present paper, the aim is to document the richness of microbial traditional knowledge of Indian people to prepare the traditional fermented beverages in different part of India. The outcome of this research is based on quantitative as well as qualitative data from local respondents, nutritional experts, & F&B Facilitators. Data collected would be analyzed by using SPSS and graphs will be generated by using Microsoft Excel version.*

**Keywords:** Therapeutic, Traditional Knowledge, Fermented beverages, & Indigenous

## INTRODUCTION

Since the inception of Indian civilization, fermented food and beverages play an inherent part of our culture and traditions, especially in developing countries like “India” as it is an inexpensive technique used to preserve food along with enhancement of nutritional and sensory values of the food. It is more than 2000 common and uncommon fermented food and beverages (alcoholic and non-alcoholic) that are consumed in different parts of India and out of which, 80% is naturally fermented with the help of micro-organism, yeast, moulds and bacteria etc. It is also noticed that fermentation creates beneficial enzymes, b-vitamins, Omega-3 fatty acids, and various strains of pro-biotic in food and beverages like fermented milk is very rich pro-biotic in nature. From the Vedic period Indian civilization have a great knowledge of plants and animals, they understand the properties of plants and animals and know their use. During the Vedic period of Indian history (2500-200Bc), alcoholic drink, soma rasa was famous and worshiped as the liquor of god because of its medicinal attributes (Bose 1922). Drinking of alcohol is also mentioned in Ramayana during (300-75bc) (Prakash, 1961). There are many more fermented beverages that we are going to talk about in this research.

Today people are trusting that fermented food and beverages can prevent obesity, diabetics, diseases related to gastro-intestinal tract, and even cancer. Some studies reported that the raw materials and compounds of traditional food and beverages have anti-lung cancer, anti-colon cancer, and anti-breast cancer properties (Marcel Dekker 1996). In today's lifestyle of the people, food allergies, food intolerance, mal-absorption, and diet-related diseases like cardiovascular disease, hyper blood pressure are on an increase. Fermented food and beverages are good enough to supplement the dietary antioxidants, dietary fibre, minerals, vitamins, and other micronutrients to needy people.

Fermentation word is obtained from the Latin word which means “to boil”. It is defined as any process used for production of a product by the mass culture of micro-organism, yeast, moulds and bacteria etc (Stanbury, 1999). In India people are using microbes from Vedic times knowingly or un-knowingly they are using process of fermentation to produce many Food and beverages (Sekar and Mariappan, 2007). But the character of the products and the Main ingredient vary from region to region (Jyoti, Prakash and Tamang 2015). the process of fermentation has many health benefits like increasing digestibility and eliminate harmful product from food and beverages by destroyed or detoxified it in the process of fermentation, the process also develop aroma and flavour in food and beverages (Sharma and Kapoor, 1996).

The process of fermentation was probably discovered by observing the changes in the juices of several fruits and other substances that had been kept for a day or more. It appears that

fermentation technology started simultaneously with settled agriculture during the Neolithic period. A sweet substance known as *Soma* juice prepared by the Vedic Aryans is supposed to be the first product of fermentation in India.

## LITERATURE REVIEW

### ROLE OF MICRO- ORGANISM IN FERMENTATION

In fermentation process micro-organisms determine the character of food and beverages like flavour, acidity and texture. (Vogel, R.F.Hammes, Habermeyer, Engel and Eisenbrand, 2011). Microorganism maybe be present in food itself or we can add the separately according to the equipment of the final product (Stevens and Nabors, 2009). Discovery of microorganism uncover many fact about fermentation and give us better insight of fermentation process. Some of the popular micro-organisms that are used by indigenous people of India for beverage making are:

1. **Bacteria**-Is used in fermentation and is of 2 type Lactic and non -lactic bacteria (stiles and Holzaefel, 1997)

Some of the common bacteria that are used in fermentation are:

*Acetobacterium, Arthrobacter, Bacillus, Bifid bacterium, Brachybacterium, Brevibacterium, Carnobacterium, Enterbacter, Lactococcus, Gluconacetobacter, Hafnia, Holomanas, Klebsiella, Kocuria, Lactobacillus, Lactococcus, Leuconostoc, Macroccoccus, Streptococcus, Streptomyyes, Teragenococcus, Weisella, Zymomonas.*

2. **Fungi**-The major role of fungi is to filamentous moldes. (Josephsen and Jespersen, 2004)

Some of the common fungi that are used in fermentation are:

*Actinomucor, Aspergillus, Fusarium, Lecanicillium, Mucor, Neurospora, Penicillium, Rhizopus, Scropulariopsis, Sperendonema.*

3. **Yeast**- Role of Yeast in fermentation is to ferment sugar and produce moldes and several enzymes

Some of the common yeast those are used in fermentation:

*Candida, Cyberlinduera, Cytofilobasidium, Debaryomyces, Dekkera, Hanseniaspora, Kazachstania, Galactomyces, Geotrichum, Guehomuces, Khyveromyces, Lachancea, Metschnikowia, Pichia, Saccharomyces, Starmerella, Torulaspora, trigonoposis, Yarrowia, Zygosaccharomyces, Zygotorulaspora.*

There are two type of fermentation process namely:

- Natural
- and spontaneous (synthetic)

In India fermented food and beverages are prepared by using local plants and crops and other biotic resource.

Different regions in the country serve different Non-Alcoholic beverages or drinks made with an eclectic assortment of ingredients including local spices, flavors and herbs. Non-Alcoholic beverages doesn't have numerous varieties or options, but they are purely based

on natural products and are rich in vitamins or minerals and also helps in terms of health or in digestion etc.

### POPULAR NON- ALCOHOLIC FERMENTED BEVERAGES

A wide range of drinks can be manufactured from pulped fruit or juice, and many are drunk without the addition of other ingredients, and others are diluted with sugar syrup. For simplicity, fruit drinks can be divided into two groups. Those that are drunk immediately after opening, requiring no preservative if processed and packaged properly. Those that are used little by little from bottles which are stored between uses, and therefore contain a certain amount of permitted long shelf-life after opening.

#### • RICE-BASED FERMENTED DRINK

This type of fermentation is practiced widely in the households in Kerala and in some parts of Tamil Nadu and the Andhra Pradesh states of India (Tamang, 2009) (Vijaylakshmi, 2005). In it, the rice is cooked, and then cooled to ambient temperature; water is added, mixed gently, and left for fermentation overnight. The next morning, the water is decanted to yield a fermented rice extract, which is mixed with butter-milk and salt, and directly consumed as a beverage. The microorganisms isolated from this rice fermentation were *S. faeca-lis*, *Paediococcusacidolactice*, *Bacillus. Microbacteriumflavum*, *Candida tropicalis*, *Candida guilliermondii*, *H.anomala*, and *Geotrichumcandidum*, and the pH of extracted decreased from 6.1 to 5.7 in 16 h of fermentation

#### Sonti Annam Andhra Pradesh (India)

In its preparation, the cooked rice is allowed to cool to ambient temperature, mixed with the inoculums, and allowed to ferment at room temperature .

#### Adirasams

Adirasams are a deep-fried product made from rice flour and jaggery. Jaggery is dis-solved in water, strained, and boiled until thick and then coconut is added and rice flour and kept for fermentation for a day. (Tamang, 2009, 2010, 2012)

#### Selroti

Selroti is a popular, fermented, rice-based, spongy, pretzel-like, deep-fried food consumed in Sikkim and the Darjeeling hills in India, Nepal, and Bhutan (Das, AK.Verma and P.D Dwivedi., 2012)

#### • MILK-BASED FERMENTED DRINK

Fermented dairy products with active bacterial cultures are one of the most common sources of probiotics.

#### Probiotic Milk

Products may be beneficial in alleviating symptoms for a number of gastrointestinal conditions, including *Helicobacter pylori* infection, irritable bowel syndrome and antibiotic-associated diarrhea

Milk products with probiotics may improve gut microbiota, have an immuno-modulatory effect, and thus maintain overall health. (Balakrishnan M and Floch MH 2012)

## OTHER NON ALCOHOLIC FERMENTED BEVERAGES

### **Sattu ki sherbet (Bihar)**

Sattu ki sherbet is a popular drink in Bihar which is basically made of roasted gram flour. Packed with protein, this savory drink is a real energizer and a meal in itself. Sattu is rich in fiber, has cooling properties. This beverage however can be consumed without fermentation as well.

### **Kokam (Maharashtra)**

A summer coolant, *Kokum Sherbet* is a very famous drink in Maharashtra. It is also known as *garcinia indica* and helps improve the digestive system. It is used in many dishes to add sour flavour. The *kokum* rind into juice and fermentation of juice by yeast and lactic acid bacteria to enhance the nutritional value and fermented juice claimed to have many health benefits.

(Tamang, 2009, 2010, 2012).

## ALCOHOLIC FERMENTED BEVERAGES

### • RICE-BASED AALCOHALIC FERMENTED DRINK

#### **Sekhimaiyu (Manipur)**

Each state of the North East has its own variations of Rice beer but the taste and flavor of Yu is mind blowing. It is made from fermented rice and has low alcohol content.

#### **Zutho (Nagaland)**

Naga people are fond of using rice in their cuisine alongside various types of meat and they also make beverage using rice. In Nagaland- you will find mainly 3 types of rice beer, namely- *Dzutse*, *Ruhi* and *Zutho*. Of the trio-*Zutho* is possibly the most popular. The taste is somewhat sour and the beverage also has a fruity aroma. Different Naga tribes prepare the fermented rice beer a little differently than others but the taste never fails to amaze. It is served in bamboo made glasses. It is made by an elaborate fermentation process. A fruity aroma with a sweet-sour taste is the hallmark of the drink. It is a frothy beer that the locals serve with roasted millet, soya bean and red chilli.

#### **Tongab/ Chhang (Sikkim)**

The Channg or Tongba is a popular drink in Sikkim. It is made using whole grain millet which is cooked and then fermented. The fermented malt is stored in bamboo tumbler and then boiled water is added in it. Using bamboo straw, you can sip the drink. No social occasion in Sikkim is complete without its consumption. It is also called the 'Hot Beer'. The alcohol quotient is below 10 percent in it.

#### **Lao Panni (Assam)**

Assamese tribes make a wide range of alcoholic beverages. However, the popularity of Lao Paani-a type of rice beer, is undeniable. This indigenously prepared drink is made with subtle variations in many regions of the hilly state. Rice is soaked into water to turn into beer. The tribes also use regional herbs and varieties of banana to add flavor to the beverage.

**Handi (Madhya Pradesh)**

*Handia* is a rice beer made by the indigenous people of Madhya Pradesh as well as Jharkhand, Orissa, Chhattisgarh. Generally take a week to be prepared, it is a combination of 20-25 herbs and ran tablets acting as a fermenting agent for the drink. Served cold, it is lower in strength than other Indian country liquors.

**Apo (Arunachal Pradesh)**

*Apo* or *Apong* is another famous fermented rice beer of Arunachal Pradesh, also served in Assam. The rice is roasted till it turns black. Then, bhutjolokia, one of the spiciest peppers in the world is added as a preservative after it's allowed to ferment. It's served at room temperature. A sweet, mellow taste with a fiery kick that hits you at the back of your tongue, it's a gastronomic delight.

**Cholai (West Bengal)**

Bangla, as the name suggests is popular in the state. It's a strong, distilled country liquor made from fermented starch. *Cholai* is another preparation of the state, made from rice and mahua flowers. So it's like the rice beers but not like them at all, with distinct undertones of the flower, both equally vying for our attention in the drink.

**OTHER BEVERAGES WITH DIFFERENT BASE**

**Ghanti, Jann and Daru (Himachal Pradesh)** The people in *Kinnaur* district of Himachal Pradesh consume *ghanti*, which is made from fermented musk and *Bhotiyas* of Uttaranchal consume *jann* and *daru*, which are prepared from cereals and fruits.

**Angoori (Himachal Pradesh)**

Also known as *Kinnauri* in Kinnaur district, *Angoori* is one of the famous beverages consumed during fairs held by the people of this region. In the making of *angoori*, green and red grapes are used.

**Kallu (Kerala)**

*Kallu*, contrary to the name, is a white, palm wine produced from the sap of palm trees and is also known as Toddy. It's produced locally and commercially. With quite a strong hit, this sweet concoction is not one to be taken lightly!

**Neera (Tamil Nadu)**

*Neera* is sweet, palm nectar famous in Tamil Nadu. Not to be confused with the juice of palm, *Neera* extraction is done before sunrise and it becomes Toddy once it's fermented. It's made by fermenting the sap of palm trees like date and coconut palms. It has a sugary taste, given the main ingredient being palm tree sap.

**Mahua (Chhattisgarh)**

An Indian moonshine, *Mahua* is a traditional drink in Chhattisgarh. It is made with by fermenting the flowers of the mahua tree, which are edible and have medicinal uses. An essential drink amongst the tribes.

**Fenny (Goa)**

One of the most famous country liquors in India has to be Fenny, indigenous to Goa. Made from either cashew nuts or coconuts, it has a pungent aroma and is one of the most widely available liquors. Those with low alcohol tolerance should steer clear of this drink.

## List of Some Other Famous Traditional Fermented Beverages of India

Serial.no	Name of the Beverage	Region	Description
1.	<i>Zutho</i>	Nagaland	Different <i>Naga</i> tribes prepare the fermented rice beer a little differently than others, the taste is somewhat sour and the beverage also has a fruity aroma. It is a frothy beer that the locals serve with roasted millet, soya bean and red chili.
2.	<i>Zawlaidi</i>	Mizoram	Made with Mizoram grapes-this is a local wine. <i>Zawlaidi</i> costs much less than other wines sold in the state. The alcohol percent stands at 11 to 14 percent. Usage of oak wood in the grape brewing reduces sourness and improves the flavor of the wine.
3.	<i>Chuwarak</i>	Tripura	This is one type of Whiskey made in Tripura. It is used with plenty of raw materials including rice, jackfruit and pineapple. Local ingredients like Tokhiseleng leaves and Thakotor leaves are also used to make it. It is more like a distilled variant of alcohol.
4.	<i>Kiat</i>	Meghalaya	<i>Kyat</i> is one such drink of Meghalaya without which no occasion is complete. Every bar of this place serves this refreshing and tasty drink which is made from fermented rice. Tourists flocking to this place also like to taste this drink called “ <i>Kyat</i> ”
5.	<i>Lao Paani</i>	Assam	Meghalaya’s own take on rice beer! Served in bamboo tumbler, the locals use a piece of charcoal to ensure the tart, sweet drink has the desired balance of alcohol. The amount of distillation varies from one region to another. Rice is soaked into water to turn into beer. The tribes also use regional herbs and varieties of banana to add flavor to the beverage.
6.	<i>Chaach</i>	Haryana	<i>Chaas</i> is made by churning yogurt (curds/ <i>dahi</i> ) and cold water together in a pot, using a hand-held instrument called <i>madhani</i> (whipper). This can be consumed plain or seasoned with a variety of spices. <i>Chaas</i> can be made from fresh yogurt, and the natural flavour of such <i>Chaas</i> is mildly sweet. This type of <i>Chaas</i> is very close to <i>Lassi</i> , with two major differences: <i>Chaas</i> is more dilute (with water) than <i>lassi</i> and unlike <i>lassi</i> , <i>Chaas</i> does not have added sugar.
7.	<i>Kesar Kasturi</i>	Rajasthan	The state of royals has drinks that are nothing short of royalty themselves. <i>Kesar Kasturi</i> – a potent brew, well guarded secret of the royal family can now be had by common folk. A mix of up to 76 different spices, it’s a drink you should definitely try one in your life. <i>Gulab Sharbat</i> is another favorite here for when the temperatures soar; the rose drink keeps you cool.

8.	<i>Raj</i>	Assam	Like most north eastern drinks, <i>Xaj</i> from Assam is another rice beer made from fermenting rice. The rice is fermented with herbs and then served up in copper vessels.
9.	<i>Kinnaur Ghanti</i>	H.P	<i>Kinnaur Ghanti</i> is a drink made from apples – a Himachal speciality – and has a taste akin to vodka. It's consumed by locals mostly, as they would have any other beverage, no occasion needed.
10.	<i>Mandia Pej</i>	Odisha	A drink to be relished in summer, <i>Mandia Pej</i> is one made by those indigenous to Odisha. It's made with <i>ragi</i> powder and the stale water from boiled rice. The two ingredients are mixed together and then covered and kept aside for a few days to ferment. Once it gets sour, you can enjoy it on a hot, summer day.
11.	<i>Chauk</i>	Tripura	Consumed on main events of any Tripura rite as a ritual, a beer made from rice and relished by both the locals and the tourists who throng the state from all over the world. You can relish it the same way you relish traditional Indian liquors.
12.	<i>Sunda Kanji</i>	Tamil Nadu	It is made from fermenting rice that is buried in earthen or mud pots covered with cloth, sold in Tamil Nadu.
13.	<i>Judima</i>	Assam	The “ <i>Judima</i> ” traditional rice wine, a popular alcoholic beverage of Assam's Dimasa tribe – and an integral part of the community's social and cultural life. The Dimasa people of Assam administer some of this wine to newborns to protect them against evil. Read here for more information about its production.
14.	<i>Gudamba</i>	Hyderabad	Illicit liquor made with sugarcane in Hyderabad is a local beverage. It is important to exercise caution in procuring it has high chances of spurious content.

Source: Authors

## RESEARCH METHODOLOGY

### RESEARCH OBJECTIVES

In order to carry out this focused research, the following specific objectives were set:

- To comprehend the concept of fermentation of beverages adapted traditionally from different regions of India along with analysis of consumption pattern amongst the Indigenous population.
- To get familiar with therapeutic effects of traditional fermented beverages and build awareness.



The research was carried out primarily through survey method, via questionnaire in different regions of India; i.e. - North, South, West and East respectively. About a sample size of 30 respondents were taken into consideration from beverage experts (consumers) of different regions across India. The data is represented in graphs, percentage, tables and figures. The idea here was to document the traditional practices and therapeutic effects associated with indigenous fermented foods, its preparation practices and awareness's in terms of consumption pattern as well as therapeutic effects.

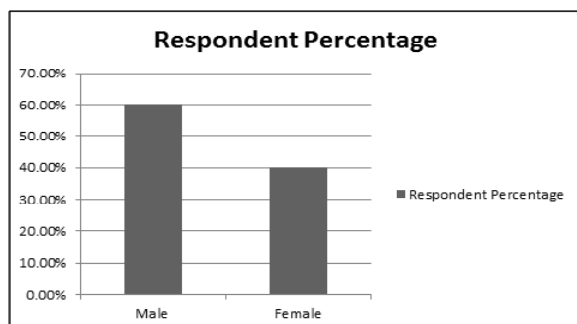
For ease of understanding, analysis and discussion on acquired information were grouped in categories of two; alcoholic and non-alcoholic traditional fermented beverages.

Secondary sources of data were also collected mainly from Internet.

## DATA ANALYSIS

The analysis and interpretation of the data involved the analysis of collected data and interpretation along with pictorial representation such as pie charts, graphs etc.

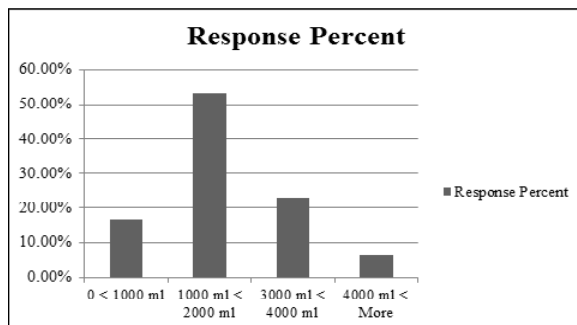
### 1. Basic information



Gender	Respondent Percentage	No of Respondent
Male	60.00%	18.00
Female	40.00%	12.00
Total	100 %	30.00

It is observed that out of total Number of respondent (i.e.30) 60% are male respondent and the rest 40% are Female.

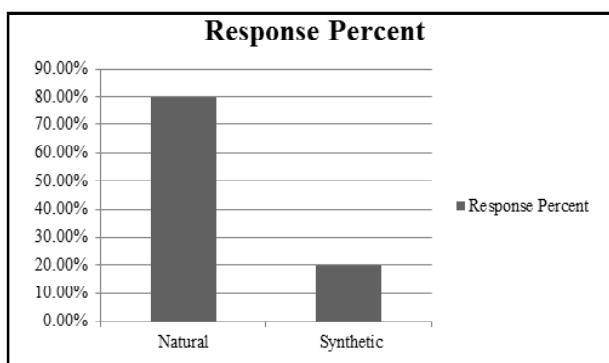
### 2. Quantity of consumption (consumption frequency) on monthly bases?



Quantity of Consumption (ml)	Response Percent	Response Count
0 < 1000 ml	16.66%	5.00
1000 ml < 2000 ml	53.33%	16.00
3000 ml < 4000 ml	23.34%	7.00
4000 ml < More	6.66%	2.00
Total	100.00%	30.00

According to the statistics majority of the quantity of consumption fall in the bracket of 1000 ml < 2000 ml (53.33%) followed by 3000 ml < 4000 ml (23.34%) , 0 < 1000 ml (16.66%) and 4000 ml < More (6.66%).

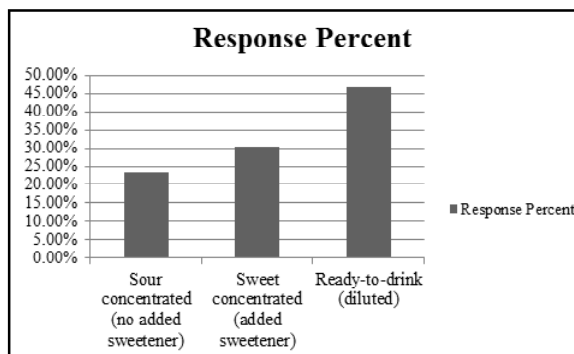
### 3. Process used for fermentation?



Process Used for Fermentation	Response Percent	Response Count
Natural	80.00%	24.00
Synthetic	20.00%	6.00
Total	100.00%	30.00

This shows that the majority of people in India preferred natural process for fermentation over Synthetic fermentation process.

### 4. The beverage you consumed is concentrated up to which extent (mixology pattern)



Mixology Pattern	Response Percent	Response Count
Sour concentrated (no added sweetener)	23.33 %	7.00
Sweet concentrated (added sweetener)	30.33 %	9.00
Ready-to-drink (diluted)	46.66 %	14.00
Total	100.32 %	30.00

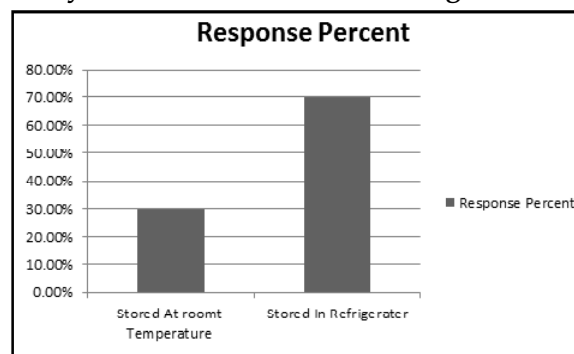
According to data most of the share of population (46.66%) prefer “Ready to drink (diluted)” fermented beverages, followed by population (30.33%) that prefer “Sweet concentrated (added sweetener)” and the rest of the population (23.33) prefer “Sour concentrated (no added sweetener)”

**5. Which conditions got better after consuming fermented beverages? (you can choose more than one)**

Type of Microorganism	Response Percent	Response Count
Bacteria	23.33 %	7.00
Yeast	40.00 %	12.00
Fungi	13.33 %	4.00
Don't know	23.33 %	7.00
Total	99.99 %	30.00

40.00% the people use “Yeast” for fermentation, 23.33% use “Bacteria”, 13.33% use “Fungi” and the rest 23.33% of people said that they don’t know what Microorganism they are using. They know the traditional process of making beverage but don’t know the science behind it.

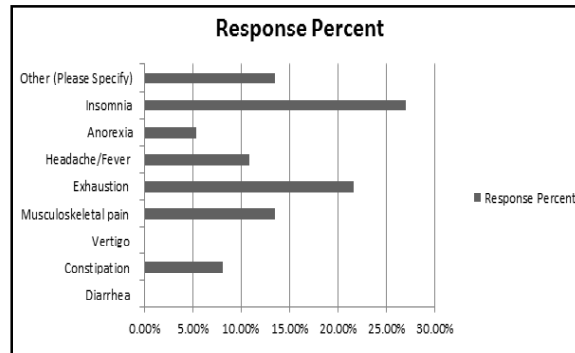
**6. How did you store ready-to-drink fermented beverage?**



How Did You Store	Response Percent	Response Count
Stored At Room Temperature	30.00 %	9.00
Stored In Refrigerator	70.00 %	21.00
Total	100.00 %	30.00

Majority (i.e. 70.00%) of people said they use refrigerator to stored fermented beverages and the rest 30.00% store fermented beverage at room temperature.

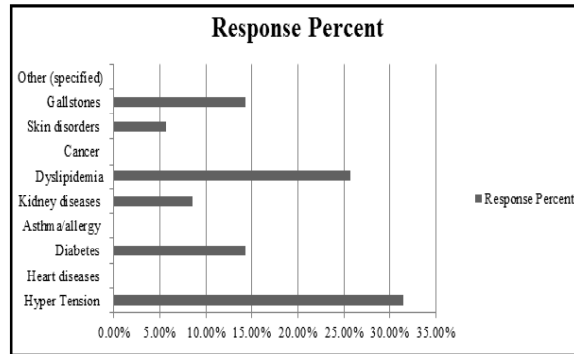
**7. For what conditions did you start the use of Fermented beverages? (you can choose more than one)**



Condition	Response Percent	Response Count
Diarrhea	0.00 %	0
Constipation	8.10 %	3
Vertigo	0.00 %	0
Musculoskeletal pain	13.51 %	5
Exhaustion	21.62 %	8
Headache/Fever	10.81 %	4
Anorexia	5.40 %	2
Insomnia	27.02 %	10
Other (PleaseSpecify)	13.51 %	5
Social Life		
Total	100.00 %	37

It is clear that 27.02% of people started taking fermented beverages to overcome Insomnia, 21.62% started due to exhaustion, followed by muscular pain, other reasons , headache/ fever constipation, anorexia.(i.e. 13.51%, 13.51%, 10.81%, 8.10%, 5.40% ) respectively.

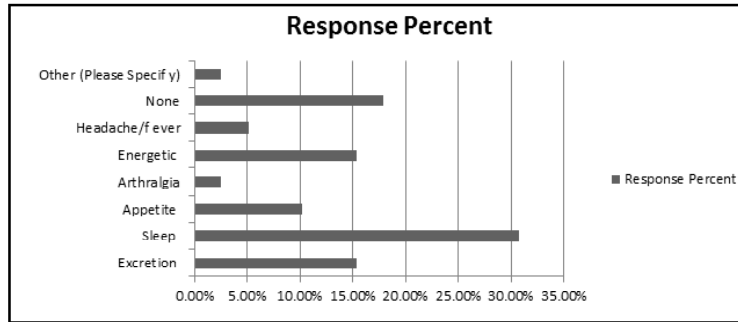
**1. For what diseases did you start the use of Fermented beverages? (you can choose more than one)**



Diseased	Response Percent	Response Count
Hyper Tension	31.42 %	11
Heart diseases	0.00%	0
Diabetes	14.28 %	5
Asthma/allergy	0.00%	0
Kidney diseases	8.57%	3
Dyslipidemia	25.71 %	9
Cancer	0.00%	0
Skin disorders	5.71%	2
Gallstones	14.28 %	5
Other ( Please specified)	0.00%	0
Total	100.00 %	35

About 31.42% people said they started taking fermented beverage to overcome “hyper tension” 25.71% started for dyslipidemia, 14.28% each for Gallstones and Diabetes ,followed by kidney diseases 8.57% ,skin disorder 5.71%.

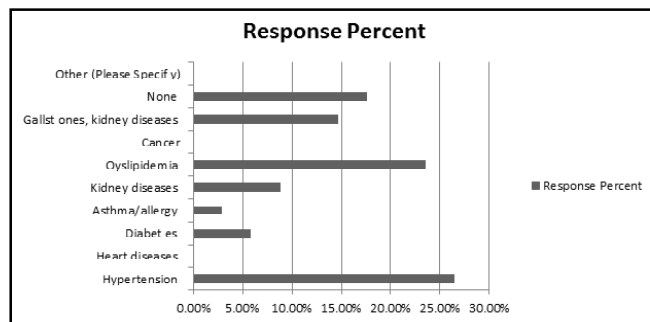
**2. Which conditions got better after consuming Fermented beverages? (you can choose more than one)**



Condition	Response Percent	Response Count
Excretion	15.38 %	6
Sleep	30.76 %	12
Appetite	10.25 %	4
Arthralgia	2.56 %	1
Energetic	15.38 %	6
Headache/ fever	5.12 %	2
None	17.94 %	7
Other (Please Specify y)	2.56 %	1
Not sure		
Total	100.00 %	39

30.76% people said that after taking fermented beverages there sleep is improved, 15.38 % said Excretion, 15.38% people said they feel more energetic after taking fermented beverages, 10.25% have signs of improvement in their appetite, 5.12% headache/fever and 17.94% people said they don't have any sign of improvement.

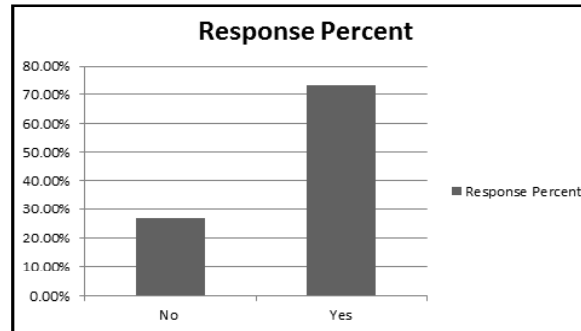
**3. Which underlying disease got better after consuming fermented beverage? (you can choose more than one choice)**



Disease	Response Percent	Response Count
Hypertension	26.47%	9
Heart diseases	0.00%	0
Diabetes	5.88%	2
Asthma / allergy	2.94%	1
Kidney diseases	8.82%	3
Oyslipidemia	23.52%	8
Cancer	0.00%	0
Gallstones, kidney diseases	14.70%	5
None	17.64%	6
Other (Please Specify y)	0.00%	0
Total	100.00%	34

26.47% people said it help in overcoming hyper tension, followed by 23.52% Oyslipidemia, Gallstones, kidney diseases 14.70%, Kidney diseases 8.82%, Diabetes 5.88% and 17.64% said they didn't get any results after consuming fermented beverage.

**4. Did you think that consuming fermented beverages can help to improve your qualities of life?**



	Response Percent	Response Count
No	27.00%	8
Yes	73.00%	22

Out of 30 respondent 22 (73.00%) think that consuming fermented beverages can help to improve your qualities of life. whereas 8 (27.00%) people denied that.

## CONCLUSION

Based on the detailed study conducted in order to understand different kinds of fermented beverages across India, it may be concluded that the usages of fermented beverages are very common across the country. Indigenous people use traditional fermented process that

include consumables including vegetables, fruits, grains and rice etc developed in different traditional ways. India is a big and diverse country; therefore the choice of different types of fermented beverages can be justified based on the variety of presence in different parts of the country. Since the types of fermented beverages vary across the country, based on the availability and different culture used for achieving different fermentation processes, and therefore their therapeutic effects also vary accordingly. Indigenous population from India mostly consider the following fermentation natural process in general that includes fermentation, sour-concentrated (generally no or very less added sugar), Bacteria and yeast (micro-organism) and careful storage (varies at in-process stage or at the making stage and at the finished stage. The prepared product is most commonly stored in the house-hold refrigerators. The traditional fermented beverages have aided improvement in the underlying diseased or health based conditions as up to an extent life-style quality for those practicing preparation and consumption of fermented beverages.

The fermentation technologies practised by ethnic people reveal a strong correlation with nature and their assessment of microbial benefits. The rich microbial diversity in various sources of fermented foods and beverages do reflect that the indigenous people have been harnessing indigenous fermentation process. Modern science and technological knowledge must be added or united to produce more beneficial results. These traditional methods of fermentation and preservation can also be commercialized and capacity planning for productivity enhancement can also be done and maximized.

From our research it has been concluded that for maintaining the wellbeing conditions and for improving lifestyle qualities, spreading prosperity, there is a high consumption of traditional fermented beverages. It is also perceived by majority that the fermented beverages consumption leads to overcome unhealthy conditions/diseases such as insomnia, exhaustion, muscular pain, head-ache etc along with health altering disease like hyper-tension, curing gall-stones and kidney diseases.

All fermented beverages are no elixir but majority do possess therapeutic properties (a clinical or lab test may also be undertaken to further analyse this result) and also act beneficially in terms of a good appetizer, digestives and few of them also has properties which provide a relief from malignant diseases like plaque, diarrhoea, stomach pain, gas trouble etc. Seasonal variance is also associated with the local consumption pattern such as some beverages have a soothing (and also cooling) effect when consumed during the summer season and so on.

However, in regards to its lucrative aspects, traditional fermented beverages certainly assists in the relief of diseases (health conditions) and also enhances life-style but cannot be compared to act totally as a medicine or its substitute.

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# 12

## CHAPTER

### **Tirumala Tirupati: A Hub for Integrated Indian Cuisine**

**M. Tirulogachander\* & Lakshmi Jayasri Akkiraju\*\***

#### **ABSTRACT**

*Tirumala and Tirupati were located in Chittoor district of south Indian state of Andhra Pradesh. Tirumala-Tirupati is one of the well-known place of devotion. Pilgrims from all-over the world visits this place frequently. Therefore it is a place at which people from all corners of the world can observe and share their cultural behaviours in terms of food habits, dressing, way of communication and so on. This is the place for availability of numerous types of food from heterogeneous origins of the world. grainsThe food served are mainly based on local culture, geographical location, economics and seasonal variation. Hence it is a one point source to study and evaluate plenty of food types. The present study aimed to collect the information about different food habits and food types among the versatile groups of visitors. Further the cross comparisons were made among the types to pick up the common behaviours and qualities and significance. This work is extended to elevate the importance of various common food items in terms of their taste, health implications and underlying medicinal properties in the ingredients of the food.*

**Keywords:** Tirumala, Pilgrims, Food culture, Local Culture, Seasonal Variation.

#### **INTRODUCTION**

Indian cuisine includes a wide variety of traditional and regional cuisines that vary considerably from each other with diversified flavours and taste. The characteristic of Indian cuisine is its diverse use of spices like chilli, pepper, black mustard seed, turmeric, cumin, fenugreek, ginger, garlic, cardamom, coriander, cinnamon, cloves, nutmeg, mint, saffron, and asafoetida powder which impart delightful flavour to the recipes. The food served are mainly based on local culture, geographical location, economics and seasonal variation. The present work is aimed to know the food habits, food culture, and kitchen culture and to elucidate the commonalities among the people from different corners of the country. In this work the

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data is collected from pilgrims who visited Tirupati and Tirumala at the time of data collection. A well organised questionnaire is executed over 150 respondents.

## LITERATURE REVIEW

According to FSSAI (Food Safety and Standards Authority of India), "Regional food habits were primarily based on a holistic approach to nutrition as required by local people, and are ideally suited to meet our health needs". The roots of Ayurveda and Yoga taught that one should be conscious and mindful of what he/she eat, when we eat and how we eat it.

Around the world the good and bad food habits affect the people significantly. Food habits have notable effects on the health and the physique of people. There are numerous efforts from the side of research community in the field of food culture, food safety and behaviour of consumers towards food. Binkley et al. 2006 in their research used a model explaining visits to table service and Ready-To-Eat restaurants. The estimates are made with nutrition variables added to standard demographic measures. It was found that nutrition factors have less impact on table service. However consumers are very conscious of nutrition factors. The search for food plays a primary role in the evolution of human culture (Matsumoto and Juang, 2012). The importance of food in traditional medicine is significant. It is a well known fact that nearly food and health are intimately related: food is often seen as a potential cause of or therapy for illness. Health can be determined by a balance of opposing energies or elements (humours) and illness occurs when this balance is disrupted (Carmona et al, 2005). It is the known fact that Cuisine is linked to the destination in terms of its cultural heritage, political, social, and economic identity. Therefore it is playing an important role in establishing the destination's overall tourism image (Crofts, 2010). Menu designing, pricing and management are the key issues in the success of a restaurant business. This activity needs a lot of exercise in terms of accessing the habits, interests and food culture of the targeted customers. Menu content planning plays a vital role and the decisions regarding menu have profound effects on customers whose perception of the meal experience and satisfaction decides the image level of the restaurant firm (Bahattin Ozdemir & Osman Caliskan 2014). Traditional Indian foods have been prepared since a long time and preparation varies according to culture across the country. Traditional wisdom in terms of food processing, preservation techniques and their medical effects have been conventional for many generations in India. Food composition has numerous biological implications through dietary components in the human body. Indian cultural food habits are recognized as functional food habits because of the presence of workable components that have therapeutic effects. The combinations of food help in health management in terms of controlled weight, blood sugar level, and and other key health measures. These functional properties can be enhanced further by processing techniques such as sprouting, malting, and fermentation ( Hotz & Gibson 2006). Food materials are classified by Aryans in relation with their nature and use such as *Sukhadhanya* (cereals), *Samidhanya* (pulses), *Phala* (fruits), *Shakna* (vegetables), *Payovarga* (milk products), *Madhyavarga* (alcoholic beverages) and *Mamasavarga* (animal products) (Achaya 1994). Grains are the basic staple food of India. They are a nutritionally rich product and provide desired nutrients that builds a healthy body. The literature addressed the consumption of grains in different civilizations of India. Most common grain based food varieties include *Idli*, *Dosa*, *Ambali*, *Ragi huri hittu*, *Enduri pitha*, *Dhokla*, *Hawaijar*, *Selroti* and so on. There is so much diversity in traditional health foods of India due to the regional implications such

as the climate, culture, and farming practices of a particular region. Moreover, certain foods have become more popular in certain region based on the health condition of a population resides in the region (Preetam Sarkar et al. 2015).

## METHODOLOGY

A well-organized questionnaire was administered to record various food habits of the population who belongs to the places around the world. The survey was conducted at about 50 restaurants/hotels/food plazas located at Tirumala and Tirupati. Analytical techniques were used for characterizing and discriminating and also to know the commonalities.

## DATA ANALYSIS AND FINDINGS

Number of respondents is 150. The response group is the collection of people belongs to heterogeneous cultures and food habits. Figure 1 and Figure 2 show the demographic distribution of the sample.

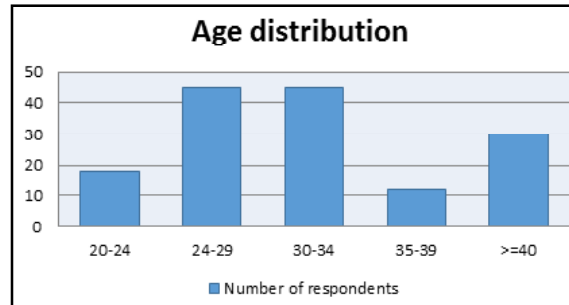


Figure 1: Age Distribution

From the above Figure it can be observed that most of the pilgrims belong to the age group "2-34".

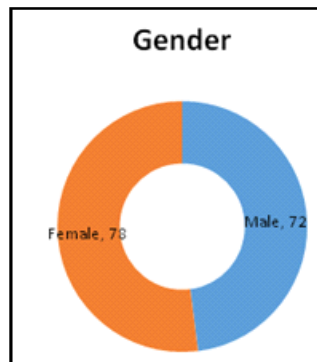
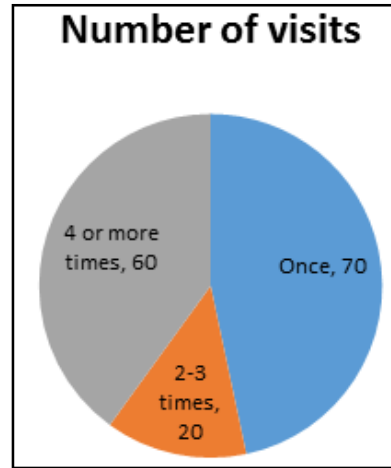


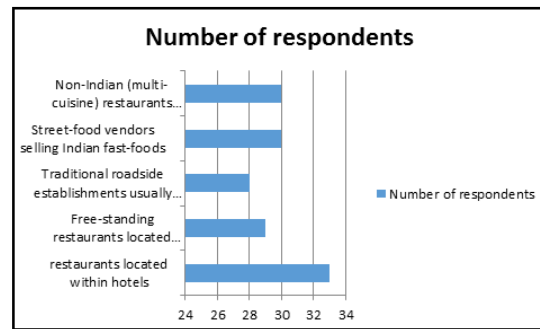
Figure 2: Gender of the Respondents

From the above Figure it can be observed that equal participation is made from the gender groups.



**Figure 3: Frequency of Visits to the Place**

From the above pie chart (Figure 3) it is clear that major portion of the respondents visited the place more than two times.



**Figure 4: Types of Food Establishments Visited**

Around Tirupati and Tirumala various types of food establishments are available. The visitors are showing interest to visit all type of establishments almost equally, but the majority of preference is for the restaurants located within hotels. Figure 4 presents the fact.

ANOVA test was done on the quality attributes of the food available locally (Table 1) at Tirupati and Tirumala. The results are shown below.

Attribute	Level of Agreement					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
You feel the local cuisine is:						
Tasty and fresh	10	22	40	20	58	150
Spicy and hot	8	25	25	45	47	150
Visually attractive	21	22	23	44	40	150
Easily digestible	50	25	22	23	30	150
Inexpensive	60	30	10	25	25	150
Good value for money	55	35	10	25	25	150

Anova: Two-Factor Without Replication						
SUMMARY	Count	Sum	Average	Variance		
Tasty and fresh	5	212	42.4	6342.8		
Spicy and hot	5	215	43	5060.5		
Visually attractive	5	167	33.4	4835.8		
Easily digestible	5	33	6.6	5276.8		
Inexpensive	5	-15	-3	5870		
Good value for money	5	-10	-2	5382.5		
Strongly disagree	6	-408	-68	2235.2		
Disagree	6	-159	-26.5	25.9		
Neutral	6	130	21.66667	124.2667		
Agree	6	364	60.66667	495.4667		
Strongly agree	6	675	112.5	1593.9		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	12014.27	5	2402.853	4.638982	0.00567	2.71089
Columns	120714.2	4	30178.55	58.26312	9.71E-11	2.866081
Error	10359.4	20	517.97			
Total	143087.9	29				

From the above analysis it is inferred that there is a significant difference among the attributes of food. Most of the respondents agreed that “the food is *Tasty and fresh*”, but they are not happy with the statements “Inexpensive” and “Good value for money”.

The respondents were asked to give the list of food items that they want to have at the time of visit. The response is furnished in the following table (Table 2).

Table 2: Food Preferences

Name of the food item mostly liked	Orissa	Rajasthan	Uttar Pradesh	Gujarat	West Bengal	Jharkand	Andhra Pradesh	Chattisgarh	Haryana	Madhya Pradesh	Manipur	Punjab	Kerala	Bihar	Delhi	Total
1: Idli	3	3			3							6		3		9
2: Dosa	3	6		3	3		3	3	3	3	3	3	3	3		24
3: Vada		6	3	3		3		3			3	6	3			15
4: Pongal	3	6				3							3	3		6
5: Poori										3						3
6: Chapati															3	3
7: South Indian meals								3		3			3			9
8: North Indian meals							3								3	6
9. Sambar	3				3						3			3		6
10. Rasam		3									3					3
11. Upma		3														0
12. Pizza/Burger/Sandwich							3				3				3	9
13. Tandoori items			3													0
14. Fried Rice			3													0
15. Lemon Rice/Tamarind rice	3		6			3										0
16. Gobi manchurian			3			3		3	3	3						9
17. Noodles			3	3					3			6				9
18. Bonda					3			3	3					3		9
19. Biryani						3					6					6
20. Pani puri							3		3							6
21. Brinjal curry						3										0
22. Parota								3		3		3				9
23. Raagi ball													3			3
24. Butter naan										3					3	6

Among the list of items *Dosa* and *vada* stood in front of the preference list. Irrespective of the states these two items are preferred mostly.

The respondents were asked to give the list of food items that they want to be available further. The response is furnished in the following table (Table 3).

Table 3: Food Preferences (to be included).

Name of the food item	Orissa	Rajasthan	Uttar Pradesh	Gujarat	West Bengal	Jharkhand	Andhra Pradesh	Chattisgarh	Haryana	Madhya Pradesh	Manipur	Punjab	Kerala	Bihar	Delhi	Total
<i>Momoos</i>															1	1
<i>Thupka</i>															1	1
<i>Paratha</i>												2		1		3
<i>Appam</i>									2	2	1		1			6
<i>Pidi</i>													1		1	2
<i>Dal Makhani</i>												2				2
<i>Raitha</i>											2		1			3
<i>Cabbage foogath</i>											2					2
<i>Tarka dal</i>										2						2
<i>Rajma chawal</i>				2					2							4
<i>Chola Bhatore</i>	1	2	2						1	2		1			1	10
<i>Poha and Jalebi</i>								2								2
<i>Paua</i>			2													2
<i>Amritsari dal</i>		2				1										3
<i>Dum aloo</i>		2							1							3
<i>Choka</i>						2										2
<i>Sev Tamatar</i>		2														2
Total																50

Among the list of items *Chola Bhatore* and *Appam* stood in front of the preference list. Irrespective of the states these two items are preferred mostly.

The respondents were asked to give the list of food items that they prefer at their local place. The response is furnished in the following table (Table 4).





Dhokla				1												1
Pav Bhaji			2													2
Biryani			1													1
Tandoori			2													2
Channa masal		2														2
Dal Thadka		2														2
Chilka Roti						1										1
Kachori		2														2
Dal Bati		2														2

Among the list of items chicken and fish items stood in front of the preference list. Irrespective of the states these two items are preferred mostly.

The respondents were asked to give the common list of ingredients of their kitchen. The total list include: Salt, Dry fruits, Rice, Chillies, Spices and herbs, Turmeric, *Dal*, Tamarind, Garam masala, Curry leaf, Mustard seeds, Fenugreek, Coconut, Peanuts, *Suji*, Besan, Ginger and garlic paste, Cloves, Coriander seeds/ leaves, Cumin seeds, onion, Cardamon, Hing, Sugar, Pepper, *Ajwain* and Jaggery. These items are most common in almost all states.

## CONCLUSION

The present survey aimed to uncover the food habits of the Indians in general and the food culture of the pilgrims those visit Tirupati and Tirumala. The survey is aided by a good questionnaire followed by data analysis. It is found that Indians are giving preferences for nutritional values, taste, cleanness, and affordable price. Though the cultures are different in name all the cultural variants are converging in terms of nutritional values and food ingredients.

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# 13

## CHAPTER

### Neuro-nutrition: Rediscovering Indian Home Cooking for Complete Health

Mamta Bist\*

#### ABSTRACT

**Background:** Neuro-nutrition is based on the concept of healthy eating at its core, how foods affect our brains, beyond calorie intake calculation. It is the concept of eating for mind and body. In Ayurveda, which is a 5,000-year-old Indian practice of natural healing, there is an adage – “As is the food, so is the thought”, i.e. you are what you eat. Behaviour and thoughts of a person are, therefore, influenced by the kind of food a person eats. Food is not just meant to satisfy ones taste buds but also to manage lifestyles diseases like moods swings, stress, physical and emotional ups and downs, and sleep disorders. In India, since ancient times, home cooking is based on the seemingly new trend of neuro-cooking. Indian home cooking has always focused on complete health. Usage of fresh ingredients and simple preparation techniques – to create balance between body, mind, spirit and social well-being, are an integral part of Indian Culinary Heritage. By rediscovering Indian home cooking and amalgamating it with commercial Indian cuisine, the actualization of Neuro-nutrition can happen for the Indian youth. By valuing our home chefs, reviving old recipes and embracing the concept of ‘Eat what your grandmother ate’, will promote Neuro-nutrition in the Indian context.

#### OBJECTIVES

1. To investigate the perception and attitudes of Indian youth towards the concept of Neuro-nutrition.
2. To identify techniques employed by Indian home cooks to manage health of the family.
3. To share the inputs given by home cooks with professional chefs.

**Methods:** A cross-sectional study was conducted to analyze the perception and attitude of Indian youth about Neuro-nutrition. A self-prepared questionnaire was administered to college going students for this purpose. In addition, structured interviews of home cooks were conducted to get an insight into their regional / traditional cooking style.

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**Results:** On analyzing the data obtained from the questionnaire-based survey it was observed that there is an alarmingly large section of today's youth which has some kind of mental health issues. Fifty per cent of the respondents were under depression, 30 per cent stressed, and 35 per cent even contemplated suicide more than once. Home cooks were unanimous in advocating Ayurvedic principle of healthy food and integrating it in the modern cuisine.

**Interpretation & conclusions:** The Indian youth forms the major section which eats out, by choice or due to work-life pressure. They eat what the hotel chef prepares. Thus, by bringing out the goodness of our home cooking and empowering our chefs with treasures of Indian culinary heritage, we can ensure Neuro-nutrition for our country's youth.

**Keywords:** Home Cook - Indian Culinary Heritage - Life Style Diseases - Mental Health - Neuro-nutrition.

## INTRODUCTION

Neuro Nutrition is a concept based on nutritional neuroscience which studies the role of different components of normal diet (i.e. protein, carbohydrate, fat), dietary supplements (e.g. minerals, vitamins, hormones, herbs), and food additives (e.g. artificial flavors, colors, sweeteners) on working of our brain. Neuro-nutrition promotes well-being, achieving psychological balance and enhancing mental performance by focusing on ingredients like amino acids, fatty acids, vitamins and minerals, which repair brain cells and boost neurotransmission. Nowadays, with the help of computerized nutritional assessment the root cause of the brain dysfunctions can be pinned down. By improving the quality of the diet we can improve the functioning of the brain in a natural way, and address the common mental health issues like depression, anxiety, sleep disorders and memory problems (Edge n.d.).

The brain represents only 2 per cent of an adult's weight, but it uses 20 per cent of the energy produced by the body (Brain and Spine Foundation (UK) n.d.). Van Heerden (2016) emphasized the importance of a healthy diet in the maintenance of the brain and nervous system. There is evidence that Neuro-nutrition helps in balancing inflammation (PTSD n.d.). A Neuro-nutritional diet, based on fresh fruits and vegetables, lean proteins, whole grains, nuts and seeds and spices and herbs, colours and textures, may boost moods and cognitive functions (PTSD n.d.).

Globalization and changing food habits of the youth (millennials) have triggered the meteoric rise of fine dining restaurants, cafes, pubs, bars, clubs, lounges, and international fast food joints in India (The Restaurant Times n.d.). However, the increased availability of diverse eating options has also negatively impacted the health of today's youth. Issues like under-nutrition and over-nutrition; stress and anxiety; suicidal tendencies and increased suicidal death rates; increased consumption of tobacco and alcohol; and other substance use, NCDs, high risk sexual behaviors including STIs and injuries mainly RTIs and violence have become common (Singh & Gopalkrishna 2014). However, diet manipulation can save brain from damage, can promote repair and reduce the effects of aging (Gómez-Pinilla 2008).

In recent times, cooking and eating styles in Indian homes have also gone through lot of changes. Emergence of multicultural nuclear families, exposure to new food varieties and availability of imported ingredients has increased the awareness about healthy cooking at home (Bansal 2017). Ayurveda is the basis of the traditional Indian cooking (Dash 2014)

and recipes based on Ayurvedic principles can satisfy the taste buds and also take care of the physical well-being (Lingam 2011). The term Ayurveda comprises of two words – *ayu* (life) and *veda* (knowledge); it deals with various aspects related to health and well-being in their diverse aspects, such as happy life, sustainable happiness, and longevity. According to Ayurveda, health is a balance of the physical (including physiological), mental, and the spiritual state (Payyappallimana & Venkatasubramanian 2016).

The present study was undertaken to examine the Indian youth's perception and attitude towards the concept of Neuro-nutrition and to collate inputs from home cooks on Indian food heritage which may be shared with professional chefs.

## METHOD & MATERIALS

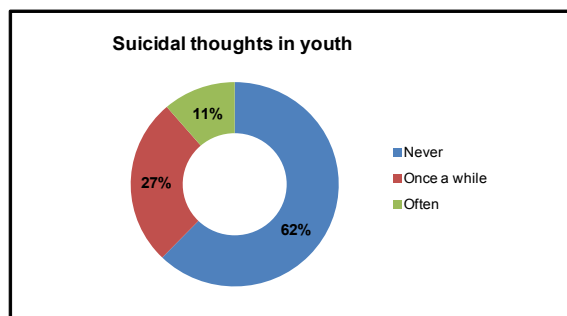
A cross-sectional study was conducted during January – February 2018 at the Institute of Hotel Management, New Delhi, India. A structured questionnaire on Neuro-nutrition was prepared to assess Indian youth (millennials) understanding of complete health and Neuro-nutrition. The participants, 3<sup>rd</sup> year B.Sc. Hospitality and Hotel Administration (HHA) students (n = 53), were asked to choose their response from the options given in the questionnaire.

In addition, structured interviews of home cooks were conducted to get an insight into their regional / traditional cooking style. The subjects were housewives or working women (40-60 years) who were responsible for cooking in their respective houses. Participants either had three generations living together in the family or their cooking was greatly influenced by traditional Indian cooking.

## RESULTS

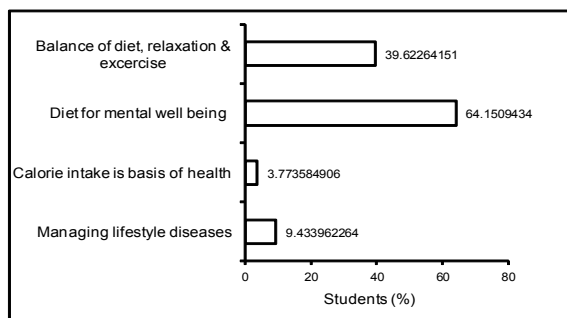
The mean age of the youth (respondents) was  $20.58 \pm 0.96$  years. All the respondents were aware of concept of balanced diet and benefits of nutritional diet as they had studied Nutrition and Food Science as one of the ancillary subject in the first year of B.Sc. HHA programme. However, only 43.39 per cent of respondents were aware of the principles of Ayurveda, which has lot of influence on Indian food. Of the 53 youth, only 23 (43.39 %) were aware of all the above mentioned concepts. Although most of the respondents (75.47 %) preferred non-vegetarian food, 15.09 per cent were pure vegetarian and 9.43 per cent preferred vegetarian over non-vegetarian food. All the respondents had junk food/ packaged food as one of the major meal per day and 18.86 per cent had it more than once. Only 3 of them were totally dependent on outside food for all the meals consumed in a day. The young generation (millennials) preferred to eat out at least twice in a week (on weekends); however, 13.2 per cent still preferred home cooked food. Twenty-four had tried vegan diet at least once, while few people had tried gluten-free diet (n=3), Atkins diet (n=3), and Ayurvedic diet (n=1). However, majority of youth was not aware of Ayurvedic diet.

The respondents chose the option of balance between mind, body and soul as an indicator of complete health. They had a good understanding of the nutritional aspect of food and were fully aware of the value of balance diet. Still, almost all of the respondents have had one or more mental health issues. Sixty per cent struggled with stress or anxiety while others had battled with mood swings, depression and substance abuse - 43.39, 39.62 and 16.98 per cent, respectively (Fig. 1).



**Figure 1: Suicidal Tendencies Observed Among Youth**

Substance abuse (drugs, alcohol, tobacco) seemed to be a solution to all mental health issues. Thirty-seven per cent also admitted to have encountered suicidal thoughts at least once. Only about 30 per cent of the respondents were aware of the Neuro Nutrition (Fig. 2).



**Figure 2: Awareness Among Youth About Neuro Nutrition**

Housewives or working women (range 40 - 60 years) who were responsible for cooking in the house were interviewed. On an average a family had four to five members. There was a mix of non-vegetarian and vegetarian families and they liked to eat out at least once a week. Sixty-one per cent of women cooked three meals every day at home and 73.33 per cent used packaged food/ semi prepared meal. Their home cooking practices and meal planning were recorded (Table I & II). All the women were of the same opinion that the key to complete health is fresh food ingredients, balanced diet, freshly prepared meals and exercise routine.

**Table 1: Practices Adopted by Home Cooks to Manage Health of Family**

Parameter	Practices
Choice of ingredients	<ul style="list-style-type: none"> <li>Fresh seasonal vegetables from local vendor (mandi), stock purchased for 2-3 days.</li> <li>Seasonal Fruits complemented by the international variety available in supermarkets.</li> <li>Packaged branded pulses and cereals.</li> <li>Dairy and meat products from local supplier/meat shop.</li> <li>Frozen food limited to occasional buying.</li> </ul>

<b>Storage of ingredients</b>	<ul style="list-style-type: none"> <li>• Washing food products before storing.</li> <li>• Use of baking soda for washing vegetables.</li> <li>• Rewashing before usage.</li> </ul>
<b>Hygiene</b>	<ul style="list-style-type: none"> <li>• Personal hygiene is valued the most.</li> <li>• Kitchen rolls and sponge wipes have replaced dusters in most of houses.</li> <li>• Cling films, paper rolls, microwave/dishwasher safe containers are preferred over aluminum foil/ steel containers.</li> <li>• Hand washing and sanitizing of hands before, after and during cooking of meals. Use of chopping boards and stainless steel knives.</li> </ul>
<b>Planning and pre- preparation</b>	<ul style="list-style-type: none"> <li>• Pre-preparation mostly done half an hour before cooking although few preferred keeping basic preparations ready a day in advance especially for breakfast and lunch.</li> </ul>
<b>Cooking</b>	<ul style="list-style-type: none"> <li>• Religion based beliefs are followed.</li> <li>• Shift towards oils considered more healthy like olive oil, canola and rice bran oil.</li> <li>• Use of pure ghee and mustard oil in at least one dish in a day.</li> <li>• Using less fat and moderate spices in food.</li> <li>• Freshly grounded masalas (spice mix) preferred.</li> <li>• Use of non stick cookware to reduce fat intake.</li> <li>• Nutrition and balanced diet for family is the priority.</li> <li>• Pressure cooking, roasting and grilling are the preferred cooking techniques. Moderate use of microwave, especially for reheating food.</li> </ul>
<b>Left over/ wastage</b>	<ul style="list-style-type: none"> <li>• Leftovers are avoided by home cooks in everyday cooking.</li> <li>• Leftover food is consumed mostly in next meal and is not stored more than two days.</li> </ul>

**Table 2: Factors Valued by Home Cooks While Planning Meals During a Week**

<b>Composition</b>	<ul style="list-style-type: none"> <li>• Balance and variety in menu composition.</li> <li>• Formal planning of cyclic menu is avoided.</li> <li>• Menu is decided based on mood of family members and availability of vegetables <i>etc.</i></li> </ul>
<b>Heavy (rich) vs light food</b>	<ul style="list-style-type: none"> <li>• Rich food is reserved for weekends and special occasions and festivals.</li> <li>• Rich or heavy meal is followed by light food.</li> <li>• Sweets are prepared occasionally.</li> </ul>
<b>Quick cooking vs slow cooking methods</b>	<ul style="list-style-type: none"> <li>• Pressure cooking is most common method for cooking.</li> <li>• Quick cooking methods are preferred during the week.</li> <li>• Slow cooking methods are preferred for cooking non vegetarian meals and rice.</li> </ul>
<b>Vegetarian vs non-vegetarian</b>	<ul style="list-style-type: none"> <li>• Even non-vegetarians avoid having meat products every day.</li> <li>• Non-veg is eaten once or twice a week.</li> <li>• Vegetarian food and dairy products are consumed daily.</li> </ul>
<b>Traditional recipes/style of eating</b>	<ul style="list-style-type: none"> <li>• Traditional recipes are prepared on festivals.</li> <li>• Festivals revive the essentials of Indian food heritage passed on from generation to generation.</li> <li>• Style of eating is based on ayurvedic principles.</li> </ul>

There has been a paradigm shift in thinking of these women regarding preparing fresh meal for the family. Nowadays keeping the vegetables semi-prepared (cutting, pastes, purees) and keeping dough ready in refrigerator were considered as a necessity to manage work-life with household responsibilities, especially cooking. In today's busy schedule family members still tried and had at least one meal in a day together which was generally dinner. However, it was not always without distractions from television, mobile phone or reading material (e.g. newspaper/e-books). On comparing food served in restaurant and hotels to home cooked food, almost all the respondents considered home cooked food much superior to food served in hotels and restaurants, although most of the respondents were ready to eat out occasionally for change of taste and enjoy leisure time with their families.

Some of the suggestions given by home cooks for professional chefs during the interview were – following better hygiene standards while cooking, using fresh ingredients to prepare meals, moderate use of spices, creating milder recipes which along with taste also balances the health aspect. Vegetarians stressed upon cooking and storing vegetarian and non-vegetarian food strictly separated. Respecting ingredients and reducing wastage was also emphasized. As per home cooks a well prepared meal is the one which is digested well by the body. Most of the respondents were of the view that chefs must avoid experimentation with an authentic dish. Value for money was also desired by most of the respondents. Most importantly, dishes may have same ingredients but should not taste the same, which is generally experienced while eating out.

## DISCUSSION

In a decade, from being a modern trend, the word 'Health' has become a necessity to manage the 'Life' today. A decade back, it started with heart health, followed by bone health, then gut health and now people are talking of mental health. In totality, all these aspects can be termed as complete health. Most of the people now accept the fact that what we eat and how we eat has manifold effects, and it is not just about taking care of taste buds. Neuro Nutrition is a concept that is based on eating healthy, local and seasonal. With the mental health issues like stress, moods swings, sleep disorders, depression, and other problems linked with modern lifestyle becoming common, the value of eating right for proper functioning of the brain has gained importance. In coming years Neuro-nutrition will gain all the more importance as complete health is the true indicator of fitness.

The refined Western diet contains many ingredients incompatible with attainment of mental health. In addition to artificial additives these diets are rich in trans fats and refined sugar. Also, there is a strong association between obesity and poor mental health in children, including hyperactivity, impulsivity, depression and poor body image. The Ayurvedic diet and Ayurvedic lifestyle are profoundly compatible with mental health (Hanah n.d.).

Indian food heritage of which Ayurveda is an integral part, gives a lot of attention to the process of digestion and metabolism of food; food is considered as powerful as medicine. Indian cuisine with a wide variety of dals, subzis, rotis, rice and an infinite category of fruits, offers a complete solution to attain complete health. Ayurveda emphasizes on maintenance of the health and prevention of the diseases by following proper diet and lifestyle regimen rather than treatment and cure of the diseases (Thakkar, Chaudhari & Sarkar, 2011). Since 1971, Ayurvedic Research Unit of the Central Council for Research in Ayurveda and Siddha,



New Delhi, has been studying the role of Ayurveda in understanding and the management of various mental disorders (Ramu & Venkataram 1985).

Mangalassary (2016) wrote in his research paper, Indian Cuisine – The Cultural Connection, that Indian traditional medicinal system “Ayurveda” has exerted a strong influence on many Indian food recipes and eating patterns. He claimed that with new research in the field of nutrition advocating excellent health benefits for many ingredients used in Indian food and many people across the globe acquiring the taste for Indian recipes, the cuisine of India is going to gain greater popularity in the future. However, it is of great concern that the depth and diversity of Indian food heritage is generally not reflected in Indian restaurants and hotels globally; which showcase only a part of our rich culinary heritage. Indian restaurants serve mainly North-Western Indian food or more of the Punjabi/Mughlai food although there is much more to Indian Cuisine than just Punjabi food.

Indian cuisine combines varied regional cooking styles and ingredients. It has been observed that the regional cooking changes every few 10-20 kilometers. Indian cuisine is not recipe bound, it is taste bound; which results in numerous variations of dishes even with the same name like biryanis, kormas and kebabs. The real Indian food is actually the one which is prepared in Indian homes, generally by the lady of the house. Ayurvedic influence on Indian home cooking is reflected in the concept of cooking of fresh meal only after taking a bath early morning, valuing food as medicine, using right food combinations, extensive use of spices, slow cooking methods and using healthy fats like home made ghee and mustard oil. Praying before eating food, offering the first bite of food to the God, sitting on the floor and eating on plantain leaves (on special occasions) and using hand (*mundras*) for eating food are a few practices which aids in better digestion of food and absorption of nutrients in the body. Certain spices like carom seeds, black salt, and asafoetida helps in controlling bloating; and other commonly used spices like turmeric have anti-inflammatory properties. The practice of tempering (*tadka/ bhagar*) food not only adds to the flavour and taste of food but also increases the nutritional value of food.

The activity of eating food has been given a lot of importance by elders in Indian families. Investing time in eating for wholesomeness of meal, and avoiding ‘grab and go’ meals has been always advocated by our elders. Eating in silence (without distraction from television, mobile or newspaper), chewing and eating slowly, and sitting for a while after eating are practices/habits inculcated by elders in the family. However, the rapid modernization, concept of nuclear families, and the increasing number of women stepping out of home for office-work, have caused a transition in the role of woman as prime home cook. Cooking for family is still one of the most important jobs of the day; however, it is not the only important activity. Therefore, people today are willing to pay a premium for a healthy home style cooked food. Thus, chefs today are responsible for ensuring proper digestion, nutrition, metabolism, and even the absorption of nutrients in the body although “No restaurant can ever compete with the love and care with which food is cooked in an Indian home” (Jaffrey 2015). In future, the responsibility to keep the society healthy will gradually shift to the chefs.

ITC corporate hospitality chef, Manjit Singh Gill (2017), mentioned in “The Philosophy of Food” that home cooked food contributes the most towards complete health as it covers all the important aspects *i.e.* wisdom of Ayurveda, local ingredients and love for cooking. While

forecasting restaurant trends that will change the way India eats out, Dsouza Prabhu (2017) wrote that the food industry in India is going back to its roots. In her blog she listed the trends predicted by various food experts like “Restaurants will have to start thinking of options in health-based food as India moves from occasion-based dining to convenience-based dining. This will be a bigger trend that will come in” - Riyaaz Almani or “The days of the big, brassy, bold resto-bars are far from over, there is also a growing niche of restaurants that are slowly coming around to using very niche, regional ingredients. The black rice of Manipur, *Radhuni Pagol* of West Bengal, kadaknath chickens” - Marryam H Reshii. She also mentioned about the views of Manu Chandra about how hotels are getting inspired by roadside eateries and home cooks, rather than the other way around. Ganguly (2018) predicts that the concept of “Eat what your grandmother ate” and popularity of “Home Chefs” will be on top this year. Rijuta Diwekar (2015), fitness professional and winner of the prestigious ‘Nutrition award’ from Asian institute of Gastroenterology, has produced a short film on ancient Indian wisdom on what to eat, how much to eat, when to eat, how to stay healthy and its relevance today. She has blended modern nutrition science with Indian time-tested wisdom on food and wellness.

**In conclusion**, there is an increasing realization among people that we need to value our rich Indian food heritage and learn from the wisdom of home cooking, which are based on the principles of Ayurveda and knowledge passed on from generation to generation. By working in coordination with Home Cooks, the professional chefs will be able to serve healthy Indian food with global touch to the millennials who are the future of our country.

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<b>14</b>
<b>CHAPTER</b>

## **Projecting Ancient Indian Food Habits of Ayurveda to Promote Health Tourism: A Case Study on Diabetes**

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### **ABSTRACT**

*Food is a magical thing manifesting itself in thousand different ways in thousand different combinations. It is the essence as well as soul of a given civilization. The most powerful among these is healing power of food. It is a never ending process. Eating food for pleasure and hunger are the most basic needs. However, it is continuously healing us physiologically psychologically and socially.*

*We have established the food's power of healing since Vedic age. The world has recognized it, however, there is still enough space to work in this area such that the world can reckon and be benefitted.*

*Ayurveda has a holistic approach of healing our body using the healing powers of herbs and food. Ayurveda approaches the disease because of imbalances created in our body and mind, thereby reducing the defence mechanism of our body. If the imbalances created in our body are restored by herbal formulas, diet and lifestyle change then we can resist a disease with the goal of eliminating it.*

*The western world has recognized, more so, the lifestyle part of the Ayurvedic system of medicine and few home remedies. However, if one concentrates on the Ayurvedic diet along with the rest of its components, longevity, healing and resistance surely will develop in an individual.*

*If we look into the WHO statistics on Diabetes, this, more of a lifestyle disease has become an epidemic. Records states since 1980 number of adults living with diabetes has almost quadrupled to 422 million adults,... largely due to type 2 diabetes and factors driving it include overweight and obesity (World Health Day 2016, WHO). It is one of the four NCDs, others being Cancer, Heart Disease and stroke, Chronic lung disease. Research shows one in 10 of the world's population will have diabetes by 2035 (Sir Michael Hirst, President IDF). 592 million people worldwide will be diabetic by 2035 according to the reports published by IDF (p.13), this will be 55% increase from 382 million diabetic people in 2013.*

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### The Purpose of the Study

- To project Ayurvedic eating habits and diet to prevent, manage and treat diabetes (Type-2).
- To explore the ways and means to promote Health Tourism for our country by economical diabetic prevention and management

**Keywords:** Ayurveda, Health Tourism, Ayurveda Tourism, Diabetes Type-II, Ayurvedic Food Habits, Ayurvedic Food Habits for Type IIDiabetics, CAM

### INTRODUCTION

*Ignorance leads to failure. Wisdom leads to success.*

Wellness Tourism is a termed under Niche Tourism when a person travels to a destination for sole purpose of finding an alternative way of dealing with a lifestyle disease and stress, having an ultimate objective of achieving, promoting and attaining maximum health, sense of well being and balance of life.

Wellness Tourism includes Ayurvedic system of medicine as one of the promoters to attract Medical Tourist. The following types of services have emerged

- Ayurvedic Treatment Centres and Clinics
- Panchkarma Centres and Resorts
- On Hotel premises Ayurvedic treatment and yoga centres
- Govt. Sponsored Ayurvedic Hospitals equipped with modern technology
- Telemedicine
- Online self-help reading material accompanied with practical classes

NITI Aayog ,National Institution for Transforming India has recently identified medical value travel as one of the major growth drivers and a major source of foreign exchange earnings. It's the policy of our government to promote all categories of Medical/Health Tourism.

National Medical and Wellness Tourism Board has been set up to provide organised platform for promotion and development of Medical Tourism, Wellness Tourism, Yoga, Ayurveda Tourism and other forms of Indian system of medicine covered under Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH)(MOT report 2016-17)

Ministry of AYUSH was upgraded from the Department of AYUSH in the 2014. The Ministry is working rigorously for the planning, promotion and implementation of policies for the upliftment of AYUSH. The main objectives are - International acceptance of our age old holistic systems of living and making India healthy by our own traditional approach.

However, it seems that we are yet to realise that food and food habits can be a biggest promotional asset of wellness tourism which itself has a great power of healing big diseases.

Charak Samhita/Sushruta Samhita/Ashtang Hridaya ,the three most important works of three eminent philosophers of Ayurveda have explained this proponent that food and food habits are the ultimate source of our wellness and well being through various verses.

This study will highlight our ancient well proven food/ *Ahara* and food habits in relation to Diabetes projecting Ayurveda.

*Ayurveda*

“Samadosha, samagnischa samadhatumala kriyaha  
prasanna atmenindriya manaha swasthya ityabhidheeyate”

(*Acharya Susruta, Susruta Samhita Sutrsthana 15.10*)

समदोषः समाग्निश्च समधातुमलः क्रियाः।  
प्रसन्नात्मेन्द्रियमनः स्वस्थइति अभिधीयते॥  
(सुश्रुतसंहिता सूत्रस्थान १५/१०)

Thousands of years ago Acharya Susruta stated that health reside in a person whose *Doshas*/ Energy, *Agni*/Digestive fire, *Dhatus*/Tissues, *Malah kriya* /physiological functions of waste disposal/ excretion are in equilibrium and when *Atma*/Soul, *Indriya*/Senses and *Mana*/Mind are happy.

This concept of health is accepted by WHO thousands of years after.

Ayurveda is eternal. It has not come from non-existence. Charak Samhita at Sutrasthan 30 verse 27 explains the eternity of Ayurveda. Meditation was the way of understanding and comprehending in vedic age. Our seers and sages explained, we learnt from our being. Our existence is the manifestation of a super energy, with this vedic belief. Ayurveda has survived for appx. 5000 years and many of its verses, explanations, suggestions for living and prevention, cure and treatment of the diseases, hold true to this day, suggesting this work of wisdom as eternal.

“*Prayojana cāsya svasthasya svāsthyarak a amāturasya vikāraprasamana*”

“प्रयोजनं चास्य स्वस्थस्य स्वास्थ्यरक्षणमातुरस्य विकार प्रशमनं च”॥६॥

“The objective of Ayurveda is to protect health of the healthy and is to alleviate the disorders in the diseased”

(Charak Samhita sutrasthan 30.26)

## ORIGIN OF A PERSON AND HIS DISEASES

There is a discussion in Sutrasthan 25 verse 3-31 of Charak Samhita where a sage asks “What the origin of a person is and what the origin of his diseases is?”

After a long discussion the answer which originated was “Only the use of wholesome food promotes the growth of the person. And only the use of unwholesome food is the cause of disorders.”

## WHOLESOME AND UN-WHOLESOME FOOD IN AYURVEDA

In Charak Samhita at Sutrasthan 28.3, 25.45 the following characteristics of wholesome food have been described as

1. That, Food which is consumed properly by *Agnis* (Food digestion) is converted to *Prasada* (The smallest component of complex food particles to carry life functions) and *Kitta* (Excrete/waste product of digestion)

2. That, which participates in the metabolism of the *Dhatus*. *Dhatus* are tissues. The 7 dhatus are -*Rasa*- Plasma, *Rakta*- Blood, *Mamsa*- muscle, *Medas*-fat, *Asthi*-bones, *Maija*- Nerves and *Shukra*-reproductive tissue
3. That, which does not affect *Dhatus*, *Agni*, *Vata* and *Srotas*. *Vata* is one form of energy in our body along with *pita* and *kapha*. *Srotas* are channels / pores from where water, nutrition and energy flow inside and in & out of our body
4. That, which maintains the balanced *Dhatus*.
5. That, which restore equilibrium in imbalanced or mal-balanced *Dhatus*/tissues.
6. That, which is liked by the individual
7. That, is not harmful to the path of the body

Such food having the above characteristic is called *Pathya* /Wholesome food and the rest is *Apathya* /Unwholesome food.

### DISEASE/HEALTH AND FOOD

According to Sutrasthan 9 Verse 3 of Charak Samhita

“Disease is disequilibrium of the *Dhatus* and Health is equilibrium of *Dhatus*. Health is known as happiness. Disease is known as unhappiness”

We know that food is the basic source of our survival. *Dhatus*/Tissues to function and perform efficiently require energy, nutrients and natural chemical components. Therefore, from the above shloka we can induce that if disequilibrium in *Dhatus*/Tissues is responsible for disease and unhappiness and their equilibrium is health and happiness, then the food is the source of these affects. Wholesome food *Pathya* will yield health and happiness and unwholesome food/*Apathya* will yield disease and unhappiness/misery.

According to Ayurveda, we are made up of Mind, Body, Senses and Spirit. The experience which we have affects our mind, body, senses and spirit. They are also responsible for our well-being. Nutrition science also states that food has physiological, social and psychological effects on our body. Thus, the kind of food we are eating and our food habits are one of the basic reasons of our lifestyle illnesses.

### FOOD AND FOOD HABITS-CAUSING DIABETES AS DESCRIBED IN AYURVEDA

Table 1.1: Adapted from Acahrya YT 2004, Paradakara HS, 2010

Food	Description	Reason
Curd	Excessive use	It is considered as cause of diabetes.
Flesh	Domestic, Aquatic, Marshy places	Increase fat
Water	New	
Grain	New	Increase fat
Products made of	Sugar/Jaggery	Increase fat
Food/ drinks	Those which increase <i>Medas</i> /fat and <i>Mutra</i>	Leads to diabetes

Diet	Having quality of –sweet, sour, salty, fatty, not easily digestible, slimy, cold	Increase sugar and fat
Alcohols	Sauveera ,Sukta, Maireya and Sura	Increase sugar
Milk	Milk and Milk products	Increase fat and sugar
Others	Oil, ghee, sugarcane juice or sugar, jaggery, alkaline, curd, <i>Pishta</i> , sour substances, <i>Pnakas</i> (Sweet Drinks)	Increase fat and sugar
Pungent, Bitter and cool items	Excessive use	Increases <i>Vata</i> dosha leading to <i>Madhumeha</i>
Fasting	Excessive	Increases <i>Vata</i> dosha Creates imbalance in carbohydrate metabolism

### HABITS CAUSING DIABETES AS DESCRIBED IN AYURVEDA

**Table 1.2. (In consultation with Dr. Anu Bahamani, BAMS, MS (Clinical Research), Ayurvedic Medical Office, Govt. Ayurvedic Dispensary, Jurola, Dist. Gurugram, 122001)**

Idle sitting	Lack of sleep/ <i>Anidra</i>	Sitting on couches, sofas or soft bases- <i>Asyasukha</i>	Inactive mentally, physically and socially
Enjoying affluence	Not bathing	Hating walking	Lack of enthusiasm
Lethargy in body and habits	Prolonged sleeping- <i>Swapansukha/Atinidra</i>	Day sleeping- <i>Swapansukha</i>	Alcohol Consumption- <i>Madyapan</i>

### BASIC CONCEPT OF AYURVEDA FOR A DIABETIC PATIENT

“Entire misery relating to both mind and body  
depend on ignorance, the entire  
happiness resides in pure knowledge”  
(*Charak Samhita Sutrasthana 30.84*)

Ayurveda which is believed to be originated from Atharva veda, one of the four Vedas, is an ancient ocean of knowledge to sail through the journey of life happily, misery free (disease free) and holistically. Ayurveda explains the ways, means, causes and effects of our being at a given point of time. It has the definition of our happiness, unhappiness, the good and bad life, factors promoting these, factors which do not promote these, their measurement and types. All of these are in relation to our body, sense organs, mind and soul. Ayurveda not only talks about diseases and their treatments in the form of verses written in Sanskrit, however, it explains the whole concept of our being in this universe.

Sutrasthan 1 Verses 41 of Charak Samhita says that ayurveda deals with good, bad, happy and unhappy life, it's promoters and non-promoters, measurement and nature and Sutrasthan 1 Verse 42 explains 'Ayus' as a conjunction of body, sense organs, mind and self.

The most fundamental to ayurveda is the belief that we are the manifestation of an all prevailing, powerful, omnipresent and omniscient energy. We are governed by this energy. Ayurvedic philosophy says we are combination of body, mind, senses and spirit.



The whole universe is made up of *Maha Panchmahabhuta* the five elements of Fire, Water, Earth, Space and Air. Since the tenet of ayurveda is – we are manifestation of super energy, three patterns of energies / *doshas* are prevailing in us *Vata*, *Pita* and *Kapha* which are the combinations and permutations of the *Panchmahabhutas*. *Vata*, *Pita* and *Kapha* defines body constitution or *Prakurti*.

There are 8 types of *Prakurti* or Body constitutions (Table 1.3) Each individual will have a specific *Prakurti* or body constitution which is defined at the time of conception and remains the same till his/her lifetime. The three energies are in specific ratio as in our DNA, this ratio is specific to an individual (Ed. Gabriel Van Loon 2002, 2003)

**Table 1.3: Adapted from B.Vasant Lad - 1996**

Prakurti	Panchmahabhuta	Nature	Functions	If, in Balance	If, in Imbalance
<i>Vata</i> dosha	Space, Air	Energy Associated with movement	Breathing, Blinking, Muscle and tissue movement, heartbeat, movements of cell membrane and cytoplasm etc.	Creativity and Flexibility	Fear and Anxiety
<i>Pita</i> Dosha	Fire, Water	Energy of Digestion and metabolism	Digestion, absorption assimilation, nutrition, metabolism and body temperature etc.	Understanding and Intelligence	Anger, hatred, Jealousy
<i>Kapha</i> Dosha	Earth, Water	Energy that forms body structure	Lubricates joints, moisturizes the skin and maintains immunity etc.	Love, calmness and forgiveness	Attachment, greed and envy
<i>Vata-Pita</i> dosha, <i>Vata-Kapha</i> dosha, <i>Pita-Kapha</i> dosha and <i>Vata-pita-kapha</i> tridosha are combination doshas which means the two or three energies predominate in an individual.					

Ironically, we call *Vata*, *Pita*, *Kapha* and the other four combinations as *dosha*. The only explanation may be since they help us to know possible diseases, specific to each body constitution/*prakurti*. In fact, ayurveda believes that the best combination is tridosha, since person born with tridosha has no inclination to disease.

Ayurveda talks about balance and imbalance. Balance in *doshas*/energies result in health and imbalance in *Doshas*/energies result in disorders.

The function of our body is the result of interaction of the three fundamental energies/*Doshas*. These energies have physical expressions. Any imbalance in the doshas results in disorders. There should be lifelong efforts to keep the harmony and balance among them.

How understanding of our body constitution/Prakurti is important?

- We can understand ourselves
  - Our food habits,
  - Kind of food,
  - Nature of food for ourselves,
  - The time of having food
- We can understand our basic nature.
- We can practice Self-care/Self-healing
- Our disease tendency (Centre for Health and Healing 2000).
- Sensitivity levels to various medicines (Centre for Health and Healing 2000).

If we are able to identify our body constitution/*prakurti* in consultation with trained physician, we will help ourselves to be disease free, happy and in harmony among mind, body, senses & spirit.

### GUNAS/QUALITIES

According to ayurveda all substances in nature have 20 *Gunas* /qualities, including food.

Hot-cold	Heavy-light	Liquid-dense	Rough-slimy	Oily-dry
Stable-mobile	Subtle-gross	Cloudy-clear	Soft-hard	Sharp-dull

The imbalance in our being occurs when *doshas* or *panchmahabhutas*, one or more, are in disorder quantitatively or qualitatively either as an increase or decrease. This is because the human experiences of emotions, weather, food, lifestyle, ethics, work culture, occupation, life roles etc. possess at least one of the above mentioned 20 qualities. These qualities have physiological effects on our being. (Sharma & Prajapati 2014) Thus, imbalances lead to disorders.

### CAUSES OF DISORDERS

*Atiyoga*, *Heen yoga* and *Mithiya yoga of Kala* (Time), *Artha* (Objects of sense organs) and *Budhi* (Mind). Indulgence-excess, less and in perverted ways of time, sense organs and mind leads to disorders. Therefore, prolonged exposure to such indulgences will lead to disorders.

We are indulged in almost all of the above. Modern lifestyle, thought process, eating habits, quality of food, mass ignorance and more educated, however, less learned individuals in community, may be the possible reasons of Diabetes Mellitus/NIDDM/Type II Diabetes.

### WHAT IS DIABETES?

It is a complex disorder under endocrine disorders characterized by the increase in the amount of glucose (sugar) in our blood.

### WHY THERE IS ACCUMULATION OF GLUCOSE IN BLOOD?

Because our body cannot make proper use of carbohydrates (starch and sugars). The reasons are two fold

1. Due to inadequate production of insulin in our body or
2. Disturbances in its utilisation

### WHAT HAPPENS?

Body is not able to utilise glucose to provide energy for various processes, activities and for building new tissues. Glucose gets accumulated in blood and spills into urine, thereby body loses it.

### TYPE II DIABETES

Type	Name	Description	Prevalence
Type II-NIDDM	Non Insulin- Dependent Diabetes Mellitus or Adult Onset Diabetes Mellitus	Results when our body is unable to process the hormone effectively. Develops slowly. Controlled by medication and diet.	In adults above 40 years of age.  90% of the diabetics have Type-II diabetes.

### WHAT EXPERTS SAY?

Diabetes can be managed and the patient can control this disorder by closely working with

1. Doctor/Expert
2. Dietician/Nutritionist
3. Life coach/Spiritual experts/Wellness experts

Ayurveda has all these three services available to a person who has patience, determination and will to read understand, comprehend and use its wisdom in day-to-day life.

### ROLE OF PANCREAS

Pancreas is a leaf shaped gland, present in upper part of our abdomen, attached to small intestine by a fine tube called the pancreatic duct.

Pancreatic cells arranged in clusters called Acini produce digestive juices, thus required in small intestine for digestion and absorption of food. This part has nothing to do with diabetes.

Islet of Langerhans or pancreatic islets produces hormones secreted directly into bloodstreams and this part of pancreas should function correctly to prevent diabetes.

**Table 1.4: In Consultation with Dr. Anu Bahamani, BAMS, MS (Clinical Research),  
Ayurvedic Medical Office, Govt. Ayurvedic Dispensary, Jurola, Dist. Gurugram,  
122001**

Hormones	Cell type	Function	%age presence of cells in pancreatic islets	Action
Glucagon	Alpha cells	Raises blood glucose levels	15%	<ul style="list-style-type: none"> <li>Step-I-Hypoglycemia or low blood sugar level stimulates secretion of glucagons from alpha cells.</li> <li>Step-II-Glucagon acts on liver cells to produce more glucose.</li> <li>Step-III-Liver cells release glucose rapidly to the blood and blood sugar level rises.</li> <li>Step-IV-If Hyperglycemia-high glucose levels in blood. Inhibits glucagon release.</li> </ul>
Insulin	Beta Cells	Lowers blood glucose levels	80%	<p>Insulin acts on various cells in the body, thus</p> <ul style="list-style-type: none"> <li>Accelerates diffusion of glucose into cells-especially skeletal muscles where it is used as fuel</li> <li>Causes liver to store glucose as glycogen in liver</li> <li>Speeds up protein synthesis and synthesis of fatty acids.</li> </ul> <p>Result-Blood Glucose level falls.If it falls below normal it inhibits release of insulin by negative feedback.</p>

***Why is it important to manage diabetes once you are diagnosed with it?***

Diabetes has many complications.

1. Hypoglycemia-Levels of glucose become too low to meet our body's requirement.
2. Hyperglycemia-Levels of glucose become too high.

Long term complications includes damage to

<ul style="list-style-type: none"> <li>o Eyes</li> <li>o Nervous System</li> <li>o Kidneys</li> <li>o Cardiovascular and circulatory systems</li> </ul>	<ul style="list-style-type: none"> <li>o Overall resistance to infections lowers</li> <li>o More prone to gum infections, urinary infections and oral infections</li> <li>o Cuts and sores heal more slowly</li> </ul>
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## DIABETES IN AYURVEDA

Diabetes is an ancient disease. Ayurveda defines 20 different types of pramehas/urinary disorders on the basis of imbalances of three doshas i.e.Vata, Pita, Kapha. The type II diabetes/NIDDM is similar to "*Madhumeha Kshaudrameha*" which literally means "excessive urine with

sweet taste like honey". It is called "*dhatupak janya vikriti*". This means a disease which is caused by defective metabolism. Defective metabolism leads to derangement of body tissues/*dhatu*s transformation process (Ed. Mishra LC, 2004).

If any of the 20 pramehas are left untreated it will lead to "*Madhumeha*". *Madhumeha* is a *kapha dosha* (Acharya Vidyadhar Shukl, 2003)

In Ayurveda there are two types of diabetic individuals

1. *Sthula pramehi* (obese) and
2. *Krisha pramehi* (lean and thin)

### CARBOHYDRATE-FUNCTIONS IN OUR BODY

Carbohydrates (glucose) are the basic source of fuel/energy for our body and Type II Diabetes is the disorder of carbohydrate metabolism in our body.

Carbohydrates are required for oxidation of fat, which means for burning fat in our body we require carbohydrate. When carbohydrates are not available to our body two things happen one body start taking fuel/energy from fats leading to ketosis and two since fats are not oxidised we tend to store more fat in various tissues of our body leading to obesity.

Also when the amount of glucose increases in our blood, it gets stored in our liver as glycogen which gets stored as fat in various tissues/*Dhatu*s.

In type II Diabetes/NIDDM the hormone Insulin is not working properly leading to high blood sugar level and obesity. Long term exposure of our body to this condition leads to complications and death.

Thus, we have to have self care/self help on

1. Food we eat
2. Lifestyle
3. Stress

### WHAT A PERSON SHOULD DO?

Ayurveda says that all Pramehas/Polyuric disorders are due to *Apathya Ahara* (improper/incompatible s/unwholesome food) and *Apathya Vihara* (improper/incompatible lifestyles) (Acharya YT 2004)

According to IDF 80% of Type II diabetes is preventable through a healthy diet and increasing physical activity (B.Vasant Lad, 1996). This wisdom was available to us some thousands of years ago in ayurveda.

### AYURVEDIC PATHYA VIHARA/PROPER LIFESTYLE FOR A DIABETIC

Should bath regularly as explained in ayurveda,	He/she should take morning and evening walk.
Laziness should be considered an enemy,	Should walk without shoes and umbrella,
Walking should be a lifelong habit,	Should work in sun and open space.

**AYURVEDIC PATHYA AHARA/PROPER DIETETICS FOR A DIABETIC**

In food sugar, rice, potatoes and sweetmeats should be complete no	Food should be like that of sage and seers
Should avoid sugary, salty and sour tastes	Follow rules of eating and dieting

**WHAT TO EAT ACCORDING TO AYURVEDA IN MADHUMEHA?**

**Table 1.5: In Consultation with Dr. Anu Bahamani, BAMS, MS (Clinical Research),  
Ayurvedic Medical Office, Govt. Ayurvedic Dispensary, Jurola,  
Dist. Gurugram, 12200)**

Food Group	Food Item	Explanation
Grains	Barley, Wheat, old rice, Grain should be <i>Uddalaka</i> that is it should be cold, unctuous, non-heavy, promoting the stability of and alleviates three doshas. <i>Shyamaka</i> , barnyard millet, <i>bajra</i> , <i>adhaki</i> (Pigeon grain)	Rich in fiber. Fibrous diet is recommended for Diabetic. For management of weight. These are also food with low glycemic index.
Pulses	Green gram ( <i>Moong Dal</i> ), Bengal gram ( <i>Chana Dal</i> ), <i>Toor Dal</i> , Horse gram	Rich in fiber, Moong dal is the best. It is highest in fiber content.
Vegetables	<i>Fenugreek</i> , pointed gourd, bitter gourd ( <i>Karela</i> ) <i>Choulayee</i> , <i>Bathuva</i> , drumstick, <i>karkotaka</i> , Garlic, Raw banana, fruit and leaf of <i>patola</i> (variety of small cucumber) and horse radish	Bitter and astringent vegetables are the best. These are the <i>rasa</i> in ayurveda which are stated good for Diabetes.
Fruits	<i>Jamun</i> , <i>Talaphala</i> , Goose berry ( <i>amala</i> ), monkey fruit, pomegranate, <i>tinduka</i>	Citric acid / Sour fruits are good for diabetic patient as compared to sweet fruits.
Seeds	<i>Methi</i> , <i>Kamala</i> (Lotus seeds), <i>Utpala</i> (Water Lily flower seeds)	<i>Methi</i> / <i>Fenugreek</i> seeds are considered the best home remedy/food to lower blood glucose levels in our body. Recommended by physicians as well.
Flesh	Fat free, forest animals, forest birds-deer, flesh, rabbit, pigeon, <i>titira</i> , <i>lavaka</i>	These meat are less in fat more in protein. Diabetic patient should lower his/her fat intake.
Fermented or alcoholic liquids	Old wine ( <i>Purana Sura</i> ), <i>Madhveeka sura</i> , <i>Madhvasava</i> (in <i>Kapha Pittaja prameha</i> )	
Sugar	<i>Madhu</i> (Honey), <i>Madhudaka</i> (honey mixed with water)	Honey has carbohydrate content however other nutritional components help in body metabolism.
Oils	<i>Nikumbha</i> / <i>Danti</i> , <i>Ingudi</i> , <i>Sarshapa</i> (Mustard), <i>Atasi</i>	
Spices	<i>Maricha</i> , <i>Saindhava</i> (Rock-salt), <i>Hingu</i> ( <i>Asafoetida</i> ), <i>Haridra</i> (Turmeric), <i>Ardra</i> (Ginger)	
Others	Dhani-popcorn of jowar, <i>Laja</i> / <i>Murmura</i> -Puffed rice	

*How Ayurveda can help?***A. How to eat?**

S. No.	Do's	Dont's
1.	Warm	Do not eat fast
2.	Unctuous	Do not eat too slow
3.	Proper quantity	Do not eat while, talking, laughing, distracted etc.
4.	When previous meals is digested	Do not eat till previous food is not digested.
5.	Items non-antagonistic in nature	Do not eat out of attachment.
6.	Eat in favourable place, with favourable accessories	Do not eat out of ignorance.
7.	Eat according to capacity of digestion.	Do not eat when in grief, anger, anxiety, fear etc.

**B. Stanya diet-"That which suits the self"****Table 1.6: Adapted from Vimanasthana Chapter 1 Shloka 20**

Superior	Made of all 6 Rasas* in each meal	Most suitable
Inferior	Made of only one rasa in each meal	Damages body over time
Medium	Use of few rasas in each meal	Less damaging then inferior.

\* Rasas/Tastes are Madhura (Sweet), Amla (Sour), Lavana (Salty), Katu (pungent) and Tikta(Bitter).

Factors affecting the result of food intake (Charak Samhita Vimanasthana 1.21-22)

The following are the factors which should be taken into consideration before taking food in.

- o Prakriti/ Swabhava / nature/ quality of food.(20 gunas)
- o Karana (processing)      Cooking, mechanical actions, utensils in which cooked, steeping ,cleansing etc. changes properties of food. How the food is prepared is of immense importance to save ourselves of any illness.
- o Samyoga      Eat right combination of foods
- o Rasi (quantity)      Sarvagraha-total volume of food consumed per day and parigraha- volume of each individual ingredient modern day diet/calorie chart
- o Desa (place)      Where the food is growing –mobile(animal food) or
  - o Immobile (plant food) grew
- o Kala (time)      Eat according to season and stage of disorder
- o Upayogasamstha      Follow rules for eating
- o Upayokta      Person consuming the food.Variation, body type and suitability developed by habit-"Oka-stanya"

*Volume of food to be eaten***Table 1.6: Adapted from Charak Samhita Vimanasthan 2.3**

Type of food	Consumption
Solid food	1/3 <sup>rd</sup> of the food to be consumed.
Liquid food	1/3 <sup>rd</sup> of the food to be consumed.
Leave space for <i>doshas</i>	1/3 <sup>rd</sup> to perform their functions.
Heavy food	Should be eaten 1/3 <sup>rd</sup> -1/2 the point of saturation
Light food	Can eat up to the point of saturation

**PROMOTING HEALTH TOURISM/AYURVED TOURISM**

Projecting Ayurvedic eating habits to the new millennia world is a tremendous job with so many eating habits prevailing across the world and people enhancing their life qualitatively and quantitatively following the suitable lifestyle of their choice.

Health is responsibility of both an individual and society with government encouraging her citizen to follow healthy holistic lifestyle. Although there are breakthroughs in the ayurvedic prevention and treatment of diabetes in India, especially in Kerala emerging as one of the best ayurvedic treatment hub, there is ignorance among general population. Therefore, this study concludes the following ways and means to promote our country as an economical diabetic prevention, management and treatment hub.

- *Collaboration*-State Governments, Central Government, Physicians and the stakeholders should collaborate to plan, implement, promote, and project world class services to convert the interest of foreign Wellness tourist in to Forex. A robust collaborative system has to be in action to shape Wellness Tourism Industry as competitive, revenue generating business and making India attractive, safe and favourite destination among wellness tourist.
- *Branding*-Based on preventive and curative approach to diseases, Ayurveda has preferred diets according to doshas, prakurti/ Body Constitution and for various diseases along with holistic style of living/*pathya vihara*. Branding our already accepted Wellness Tourism/ Ayurveda Tourism ,by the world ,around such diets and food habits can be a breakthrough in promoting Wellness Tourism thus Ayurveda Tourism.
- *Education*-It was astonishing and surprising to observe that as country of highly educated, learned and visionary forefathers we have not introduced the wisdom of Ayurveda at school level and related professional courses like hotel management and culinary institutes.

World has reckoned to revolutionize modern education system to equip our children with life skill through schooling and higher education system. Ayurveda should be introduced, partly, if not fully from Middle school level with very basic things in Environment sciences for kids.

This can be a major step to brand India as a country of people enjoying healthy, holistic living in few years.



- *Promotion*- Magazines for niche tourism like Ayurveda Tourism-Destination India. Organizing Regional Food Festivals of SAARC countries on the themes selected from Ayurvedic herbs, food or preventive and curing food, in collaboration with the Ayurvedic Physicians etc  
Electronic and Digital media would be excellent channels to promote highlighting success stories and patient/customer reviews  
Government is a referral point for medical tourist so initiatives at Government level internationally is essential
- *Research*-Ministry should encourage advance research to develop evidence based on traditional ayurvedic treatment building trust among the users and attract more users.
- *Practises*-National Accreditation Board for Hospitals & Healthcare Providers,NABH along with Ministry of AYUSH guidelines has set accreditation policy and encourages the stakeholders to file their application. Kerala government has olive leaf and leaf accreditation respectively.  
Registration of Ayurvedic doctors should be mandatory. Bridge course should also be mandatory to have an understanding of allopathic practices. This will help to have a blend of modern and contemporary.
- *Development of Tourist places*-Wellness Tourism and Ayurvedic food villages are not seasonal therefore, these tourism products can attract tourists for 365 days.  
Kerala is the leader in selling wellness tourism product other state governments can also develop their tourist spot on Kerala's model selling wellness and ayurvedic tourism product since this product can be easily sold as value added experience along with a serene tourist destination.
- *Quality Control & Safety*-According to GHR survey the two most important yardsticks for visiting a Wellness/Health destination is Quality Control and Safety of the patient. Global traveller expect certain QC standards on services like utilities, confidentiality of patient medical records and reports and safety & security while travelling outside the premises. International standards should be met.
- *Surveys*-Government should encourage various surveys for the benefit of services providers and for new business ventures. While working for this study there wasn't any standardised data. This seems to be the most neglected part if we want to compete with other countries like Thailand, Singapore and Malaysia surveys should be conducted.

## CONCLUSION

Ayurveda is a compilation of years of wisdom of highly learned human race, possessing unchanged application till date. However, the preventive and curative mechanism of holistic life experience has to compete with modern lifestyles and medical system. Increased number of people attracted towards Ayurvedic medicine system has developed a new faith in us validating its eternity.

Diabetes has become epidemic with IDF research report projecting 1 in 10 of the world population being diabetic by 2035(Sir Michael Hirst, President IDF). Overweight, obesity

due to lifestyle and food habits have been ascertained by numerous studies as the basic reasons.

Projecting ayurvedic *Pathya Ahara*/Right Food habits and *Pathya Vihara*/Right living habits as preventive and curative measures of diabetes (Type 2) are pieces of true wisdom as this disease has ancient history. Also the age old reasons of diabetes are coinciding with the present day reasons of its onset. This suggests that Ayurveda is the alternative, side effects free, preventive and curative treatment of Type 2 Diabetes/NIDDMS/Madhumeha.

Like food pyramid we can also have food pyramid for various lifestyle disorders and plan these in consultation with physician and nutritionist. These may be handy for our busy lifestyles. What and how much to eat is a huge question each day, more so, in nuclear families and at the end we eat out?

It is thus echoed, to have ayurveda be introduced partly/wholly as textbooks at school level and higher education.

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# 15

## CHAPTER

### Surreptitious of Traditional Therapeutic Tamil Gastronomy: A Study

M. Satheesh\* & R. Parimla\*\*

#### ABSTRACT

*The cooking customs of a people articulate their attitudes to life. Consumption a healing diet packed with therapeutic foods that aid prevent and care for diseases in nature. Food conceivably plays one of the major significant roles in people every day life and wellbeing. Our diets should be as such that we sustain symmetry of vatham, pitham and kabham. There is that Tamil motto “Unavae marunthu; marunthae unavu” which means food is medicine, medicine is food. Siddhars like Thiruvalluvar well thought-out and equated food to medicine decades back to craft the value of nutrition. Our ancestors survived on older rice and farm grown millets, spices. Earlier, habitual food objects had played an integral role in people’s lives, providing nutrition to them and ensuring a strong connection between the community and the land. People knew what to eat, how much to eat and when to eat it even before the formal knowledge of nutrition and balanced diet. There was no need for medicines or dietary supplements; Food was used as the cure. The Siddha and Ayurvedic method of healing were all born from this period old practice, we can find evidence of this in ancient scripting and novels. Traditional Tamil cuisine is perhaps the oldest representative of the continuous vegetarian cultures of the world. . Traditional recipes produce an unique merge of medicinal spices, that makes the food very delicious, nutritious and hearty. Vegetables, Millets, Lentils, Meats and Dairy products are the foundation. A healthy diet promote healing without medication and helpful in prevention of diseases also. Nevertheless, there is still hope. Many have come to realize the downfalls of fast food and the conventional and commercial food habits and are now seeking to return to millets and other healthy alternatives. Slowly, traditional food is being popularized and is making a way back into the lives of our people. This study aims to carve up well-liked healthy and traditional recipes for a healthier living.*

**Keywords:** *Healing Diet, Medicine, Diseases, Nutrition, Tamil Cuisine, Therapeutic Recipes.*

#### INTRODUCTION

The writings of three giants of medicine named *Charaka, Sushruta* and *vagbhata* and of some lesser lights, codified Hindu ideas as they existed about the start of the Christian

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era. Illnesses were believed to arise primarily because of disharmony between the bodily humours, which were in hindu view, also connected with cosmic factors. Good health represented a balance between various forces, and dietary injunctions were simply regular cooked food items. Thus *vatika* and *gutika* were pills and balls, *modaka* was a sweet uncooked pill, and *yavagu* a grain gruel with added medicinal herbs. *Thaila* was an oil based decoction both for external and internal use, *arishta* and *asava* were medicated fermented liquors, and *kanjika* was a rice gruel soured by fermentation. All these constituted items of prescription to restore the health balance. K.T.Achaya (2016 p.77)

Food should always be standard and balanced. asymmetrical dietetic behaviour guides to derangement of three humours (*Vatham*, *Pitham* and *Kapham*), Seven physical constituents (*Saram*, *Chenneer*, *Oon*, *Kozhuppu*, *Enbu*, *Moolai*, *Sukilam*, or *Sronitham*), Three excretas (Faeces, Urine and Sweat) hence diseases occur. This is the basic concept of *Siddha* Medicine regarding food habits. A diet containing all six tastes (Sweet, Astrigent, Pungent, Bitter, Salty and Sour) is a balanced diet.

We've all heard the old saying "You are what you eat", and it's still true. A balanced nutritive diet is the *mantra* to good health. In recent times people are becoming conscious of the consumption of balanced and nutritional diet leading to a healthy lifestyle. As per the quotes of Benjamin Franklin (1706-1790) *Poor Richard's Almanac*, "Time is an herb that cures all Diseases." Indian home with special reference to mother's of yester years of Tamilnadu have to their acclaim the preparation of using a variety of traditional recipes like *Thuthuvalai rasam*, *Ponnakanni keerai poriyal*, *Nattu kozhi soup*, *vazhathandu soup*, *Tulsi tea*, *Ingi thuvaiyal*, *Sukku malli coffee*, *Milagu paal* (pepper milk), *Chola dosai* and so on to cure symptoms of diseases or properties to revitalize and to maintain good health.

Traditional medicine may include formalized aspects of folk medicine, i.e. longstanding remedies passed on and practiced by lame people. custom recognized as traditional remedies include *Ayurveda*, *Siddha*, *Unani*, olden Iranian medicine, Irani, Islamic medicine, traditional Vietnamese medicine, traditional Chinese medicine, *acupuncture*, *Muti*, *Ifā*, traditional African medicine, and many other forms of therapeutic method.

*Siddha Medicine* - one of the oldest medical systems known to mankind is claimed to revitalize and rejuvenate dysfunctional organs that cause the disease and it is believed that this system of medicine maintains the ratio of *vata*, *pitta* and *kapha*. Leaves, flowers, fruit and various roots mixed with different proportion forms the basis for medical therapy. The treatments of *Siddha* medicines could be further categorized into following categories such as purgative therapy, emetic therapy, fasting therapy, steam therapy, oleation therapy, physical therapy, solar therapy, blood-letting therapy, yoga therapy, etc. Eighty percent of people in India use some form of traditional medicines, within the category of *Ayurveda*, *Siddha*, *Unnani*, Naturopathy, Homeopathy.

## MATERIALS AND METHOD

### TRADITIONAL TAMIL GASTRONOMY

Tamil cuisine is perhaps the oldest representative of the continuous vegetarian cultures of the world. Tamil cuisine is known for its aromatic, flavourful and sometimes spicy food. These recipes create an unique blend of spices, that makes the food very appetising, nutritious and wholesome. Vegetables, Meats and Dairy products are the foundation. Cinnamon, Nutmeg,

Cloves, Cardamom, Cumin, Coriander, Coconut, Rosewater etc, flavour the food and remind us of the sweetness of life. Curry Powder, Ginger, Garlic, Chillies, Pepper, Fruits like Gooseberry, Pomagranate, Jumbolam, Dates, Pineapple, Banana, Oranges should be included in our diet.

Traditional foods (also known as indigenous recipes or folk recipes) comprise knowledge systems that are developed over generations within various societies before the era of modernization. Traditional recipes purely relies on health practices and approaches of putting together plants, millets, herbs, spices and fleshly foods in singular or in combination with a belief to treat and prevent illness or to maintain health and well being.

### HEALING DIET

The foods have an extra-ordinary place in the realm of traditional cures as medicines. There is a treasure house of knowledge, which needs to be explored to establish the scientific basis of its benefits. As rightly pointed out by, common herbs and spices like basil, turmeric, fenugreek, mustard, asafoetida, cumin, ginger, onions and garlic, and have a distinct place in folk medicine in Tamilnadu region. Thus ingredients form an essential component of any traditional recipes.

Food including fruits, high fiber contents, vegetables, cereals, pulses, fish, meat etc should be a part of our meal. Rice types like *samba* is good quality for diabetic patients, *seeraga samba* and *Kuntrimini samba* are good for *Vatham* treatments. The porridge cooked from rice, millets is a common part of diet. Different porridges like *Seeraga samba* porridge, Black gram *dal* porridge, *Pal* porridge, *Nalikera* porridge, *Kanji* with healing powders, are enriched with medicinal ethics and very healthy for patients during prescription and *pathiyam*.

### SOME TRADITIONAL FOOD REMEDIES AND BENEFIT

Primarily depend upon the healing properties all the therapeutic recipes were confidential for different therapeutic conditions specifically Indigestion, Ulcer, Cold, Cough, Constipation, Diabetes, Febrile condition and during convalescent period etc..

DISH	DESCRIPTION	HEALTH BENEFITS
<i>Nenjallumbu Charu</i> / Lamb Rib bone soup	Broth flavored using Mutton rib bones and spices such as coriander, pepper etc.	Helps in curing cold. Boosts immune system and provides strength.
<i>Sukumalli coffee</i> / Herbal tea	Hot beverage with extracted flavors from dry ginger, coriander seeds and jaggery.	Helps in curing cold, cough and sore throat. Helps in digestion.
<i>Manthakalli keera</i> <i>masiyal</i> / Black night shade	Tempered mashed <i>dal</i> and cooked <i>Manathakallikeera</i> .	Helps in curing mouth and stomach ulcers.
<i>Navarathna Kanjee</i> / Millet porridge	Sweet or savory porridge made using nine varieties of millets.	Helps while recovering from illness. Improves stamina.
<i>Venthaiya keera</i> <i>porriyal</i> / fenugreek leaves	Sautéed <i>Venthaiyakeera</i> with shallots and spices.	Contains anti-diabetic elements. Also helps with bowel problems.
<i>Millagu kanjee</i> / Pepper porridge	Porridge made with crushed pepper and rice.	Helps in curing fever and cold. Stimulates digestion.

<i>Pasalai keerai masiyal/</i> Spinach kootu	Tempered mashed dal and cooked Pasalaikeerai.	Helps with constipation. Contains high levels of iron and calcium.
<i>Ragi adai/</i> Finger millet pan cake	Millet pancakes made out of Ragi with shallots and spices.	Helps in strengthening bones and muscles. rich in calcium and protein.
<i>Kovakkai Poriyal/Ivy</i> <i>gourd poriyal</i>	Sautéed Ivy gourd with tempered dal and spices.	Prevents kidney stones and protects the nervous system.
<i>Vazhathandu Kootu/</i> Plantain Pith Kootu	Banana stem with tempered dal.	Helps in treating kidney stones and urinary tract infections. Manages cholesterol.
<i>Uluntham kalli/</i> Black gram <i>dhal halwa</i>	Halwa made from ground black gram using gingelly oil and jaggery.	Rich in protein. Helps strengthen bones. Very nutritious for women.
<i>Ragi Koozh/</i> Finger millet porridge	Porridge made using rice and Ragi. Flavored using curd and shallots.	Helps with digestion and boosts stamina.
<i>Ellu sadham/</i> Sesame rice	Sesame is one of the oldest products cultivated since the olden times, and is said to be one of the oldest seasonings used.	They are good in anti-oxidants, dietary fiber, vitamins, and minerals etc.
<i>Thinai arisi upma/</i> Fox tail millet upma	Cooked as a thick porridge from Foxtail millet.	Millet is gluten free, rich in fiber and proteins. Compared to other cereal grains.
<i>Kollu rasam/</i> Horse gram rasam	Kollu Rasam is a wholesome recipe of rasam made from horse gram	It is rich in taste and at the same time rich in protein and iron apart and has high antioxidant capacities along with hemagglutinin which is a substance found in antibodies and autoimmune functions. Good for the kidney stone problem.
<i>Athikai kootu/</i> Anjeer <i>moong dal fry /</i> Figs and Split green curry	Figs are cooked with dal, coconut then seasoned.	Figs are a good source of potassium, a mineral that helps to control blood pressure. It also helps to lose weight and plays an important role in prevention of breast cancer.
<i>Sathu Mavu Urundai/</i> Millets Health Mix <i>Laddo</i>	The sathumavu is prepared by grinding nine different millet.	It has high protein content and almost nil cholesterol.
<i>Nethili meen avial/</i> Anchovies mango coconut masala	Anchovies cooked with raw mangoes and coconut.	Anchovies is very good for breast feeding mothers and was cooked for them, during the post partum period.
<i>Avaram poo idly/</i> Cassia auriculata idly	Fermented food from rice and cassia petals.	The avaram flower prevents diabetes. Eating it once a week in any form will reduce the sugar levels in your body.
<i>Thuthuvalai rasam</i>	Herbal rasam prepared with Thuthuvalaileaves, Tamarind, Gooseberry.	Medicine for Cold, Cough, Asthma.

<i>Mudakathan rasam/ Balloon vine rasam.</i>	Medicinal broth with balloon vine leaves, garlic, pepper, jeera, red chilly.	Treat ear pain, joint pain, used for all kinds of pain, even gout patients, arthritis.
<i>Kovai keerai charu/ Ivy greens soup</i>	Broth flavoured from using Kovai keerai leaves, pearl onions, garlic cloves, tomato, cumin seeds, pepper.	Treatment of piles, the pus will mature and oozes out automatically, the fruit are also very useful treat with leprosy, jaundice, asthma, Diabetes.
<i>Thippili rasam/ Long pepper rasam</i>	Medicinal broth with Thippili, cumin, black pepper, garlic cloves, long pepper.	Increase immunity level, curing digestion problem, removing toxins
<i>Arai keerai poriyal/ Amaranthus</i>	Boiled Arai keerai leaves, with, garlic, coconut and spices.	Being rich in vitamin a, it is consider good for the eyes.
<i>Murungai keerai poriyal/ Drumstick leaves</i>	Seasoned Drumstick leaves, with onion, garlic, coconut and spices.	Control Blood pressure, Increasing glucose level.
<i>Fresh ginger tea/ Injee thanne</i>	Using Ginger, sugar, lemon, mint flavoured drink.	Fight against cancer, weight loss, stomach pain, relieve stress.
<i>Green tea</i>	Using Green tea bags or Leaves,	Control bleeding, heal wounds, aid
	honey, lemon juice, basil leaves	digestion, improve heart and mental
	flavoured drink.	health, weight loss, liver disorder, Alzheimer disease
<i>Cardamom tea/ Elakkai tea</i>	Using Cardamom, black pepper, cloves, cinnamon stick, ginger,	It helps for Flatulence, heartburn, stomachache, indigestion, cramps. honey flavoured drink.
<i>Arugampul juice/</i>	Arugampul boiled with water,	Contains alkalizing and detoxing
<i>Bermuda grass</i>	and blend.	properties. Helps cure anemia, and lung problem.
<i>Angaya podi / Herbal powder</i>	Roasted and grounded powder from Arisithippli, kandathippli, dry ginger, pepper, cumin, dry manathakkali, dry neem flower, sathakuppai.	Very nutritious and with immense medicinal value. It relieves stomach upset, cures indigestion and vomiting, loss of appetite and so on. This Tamil Recipe Angaya Podi is prepared and given especially to women post delivery with new borns.
<i>Varagu sadam/ Kodo millet rice</i>	The samba variety rice preparation	Rice reduces the cholesterol level in the body.
<i>Kamban Chooru/ Kambu sadam/ Bajra rice</i>	Porridge from bajra. Traditionally this dish is consumed with raw onions and green chillies.	Bajra is a storehouse of Vitamins and minerals and its gluten free.
<i>Kashayam/ South Indian Herbal tea or decaution</i>	Sukku (dry ginger), Milagu (black pepper corns) and Thippili (Indian long pepper) -are the three cornerstone ingredients in this making of kashayam.	Since common cold is a viral infection, the best known treatment is to flush it out of the body by drinking ample fluids.

Source: Healing with herbs Ancient ayurvedic wisdom for health and longevity, 2016.



**RESULT AND DISCUSSION:****HERBS AND SPICES USED IN PREVENTATIVE WELLBEING AND HEALING WITH EVIDENCE BASED RESEARCH**

Greens have always played a major role in providing well being. The dishes they cooked were absolutely healthy. The ingredients consists mostly of healthy herbs, spices, sprouts and vegetables. Healing spices and condiments have been around for aeons and influence the nature, taste, flavor and characteristics of traditional dishes. Many of them are part of Sidha and Ayurveda (the science of life and health) and it has always been a moot question as to whether they were added to enhance taste and flavor or to promote health because many of these spices and condiments have been ascribed health-promoting or therapeutic roles.

In order to define their roles, it is necessary to list them and examine the proof-based research available. Given below, is a list of some of the various herbs, spices and condiments that are added in one form or other to Tamil cuisine.

Therapeutic herbs/ Spices	Botanical name	Culinary Uses	Reputed Benefits	Facts Based Benefits/ Side effects
Basil <i>Tulsi</i>	<i>Ocimum basilicum</i>	Seeds or leaves used. Has a clove scent.	Anti-infective uses ascribed.	Effectiveness for claims to treat flatulence and stimulate appetite has not been documented.
Vegetable Humming Bird Tree Leaves <i>Agathikeerai</i>	<i>Sesbania grandiflora</i>	Can make use of the leaves, flowers and roots of this spinach as all its part has an incredible benefits.	Its roots where also been used for curing several problems. Rich is all the major nutrients helps in building strong bones and muscle tissue.	In spite of its rich medicinal properties. It is advised that one should not eat agathi keerai if he is already undergoing a treatment for any other disease as it may lead to side effects.
Amaranth <i>Araikeerai</i>	<i>Amaranthus dubius</i>	This spinach type can be used for poriyal, kootu	It has high source of calcium and fiber. This is considered as a treat for the lactating mothers.	It has lots of medicinal benefits helps in building strong immune system. It helps in curing cold and cough.
Tropical Amarnath <i>Sirukeerai</i>	<i>Tropical amaranth</i>	Used in soups, poriyal.	It is very high in calcium and iron.	Helps in eradicating kidney stones and other bile related diseases. people suffering with gall bladder and other stomach related diseases.

Spinach <i>Palak keerai</i>	<i>Spinacea oleracea</i>	Used in <i>kootu, dal, soup</i> .	It is loaded with iron and helps in curing anemia, other nutrients like magnesium, fiber, Vitamin A, Vitamin C and folate .	Spinach has anti - oxidant properties and prevents the body from any infections or diseases. helps in preventing cancer.
False daisy <i>Karisalankanni Keerai</i>	<i>Eclipta prostrata</i> or <i>Eclipta alba</i>	Used in juices.	Will prevent anemia. it also detoxifies the body by removing unwanted toxins.	The best medicine for cold and cough, this spinach can also be used to cure stomach infections caused by bacteria and other liver disorders.
<a href="#">Dwarf copper leaf</a> <i>Ponnankanni keerai</i>	<i>Alternanthera sessilis</i>	Cooked in <i>poriyal, Juice</i> .	They are high in calories and gives energy. used for curing eye sight problems as it removes any infections and inflammation caused in the eye.	It also helps in treating cough and also helps in curing piles and constipation.
<a href="#">Indian pennywort</a> <i>Vallarai keerai</i>	<i>Centella asiatica</i>	Use this spinach for chutney and juice.	Known for its memory power building.	Not only strengthens the brain but also helps in hair development by reducing hair fall and promotes hair growth.
Drumstick leaves <i>Murungai keerai</i>	<i>Moringa oleifera</i>	Can be made as <i>poriyal, vada, soup</i> .	Rich in iron and it helps in menstrual problems among women.	This spinach type also increases fertility in men and women. It also helps in curing stomach ulcers. your body fertile and reduces sugar levels in the body.
Ballon vine <i>Mudakkathan</i>	<i>Cardiospermum halicacabum</i>	Used to prepare varieties of dishes like <i>Adai, dosa, chutney</i> .	The properties of this vine are laxative, stimulates appetite, heals swelling, and strengthen body.	Well established medicine for back pain, nerves weakness, constipation, swelling etc.
Black night shade', Sun berry <i>Mana thakkali keerai</i>	<i>Solanum nigrum</i>	Used in cooking like spinach.	It is rich in antioxidants, iron, vitamins and minerals. It is rich in calcium to build a strong body, enough phosphorous to aid the growth and development of brain nerves, and rich in vitamin C which helps to maintain immune system properly.	It solves digestion related problem. It helps to control diabetes. It has diuretic property, when consumed helps kidney to function properly. it is poisonous herb and considered it as weed without knowing its health benefits.

Curry leaves <i>Karuwepilai</i>	<i>Murraya koenigii</i>	Can be consumed raw, chutney and powder, used in other dishes for garnishing.	It is rich in fiber, iron and folic acid. Folic acid plays an essential role in developing a strong body.	This curry leaves helps in digestion and also reduces congestion in chest and nose.
Fenugreek leaves <i>Vendhaiya keera</i>	<i>Trigonella foenum-graecum</i>	Cooked in poriyal, dal and salad.	It reduces the body heat and prevents the diseases that are caused by inflammation. It improves libido in men and as well as in women.	Leaves has a magical power of healing gastric trouble, phlegm, chest pain, cough, and piles. It reduces the cholesterol level and gives a glowing skin.
Bermuda Grass <i>Arugampul</i>		Used in juices.	Arugampul is both the root and leaves have medicinal uses.	Antioxidants are known to prevent cardiovascular conditions, cancers, and strokes. It is also helpful in combating atherosclerosis. Consuming concoction of Bermuda grass helps in blood purification process.
<a href="#"><u>Thai night shade</u></a> <i>Thuthuvelai</i>	<i>Solanum trilobatum</i>	Used for cooking in common.	Energy booster and acts as a stimulant.	The best medicine for Asthma and respiratory disorders. The best medicine to get faster relief from cough and cold.
Avaram poo Tanner's cassia	<i>Senna Auriculata</i>	Used in tea, juice.	The antioxidant rich concoction is very tasty and a perfect substitute for caffeinated beverages like tea and coffee.	Uses in disorders of the gastrointestinal tract. It has been evidenced to improve liver function and rectify constipation.
Betel pepper <i>Vetrilai</i>	<i>Piper betle</i>	Used in end of the meal.	This essential oil has blood pressure lowering, cardiac as well as respiratory depressant and cardiotonic properties.	Betel leaf has antiseptic, analgesic, antibacterial, anti-lactagogue (reducing breast milk), antioxidant, antispasmodic, cardiotonic, carminative, expectorant, litholytic, tonic and contraceptive properties.

Neem leaves <i>Vempu Ilai</i>	<i>Azadirachta indica</i>	Nimbin, nimbidin, ninbidol etc.	As a toxic killer due to its bitterness; neem sticks as a tooth brush; dry roasted need flower used in diarrhea .	Small clinical trials on antioxidant properties; increase in CD4+ levels in HIV patients.
Turmeric <i>Manjal</i>	<i>Curcuma longa</i>	Used to season most non-sweet vegetable and legume dishes.	Regarded as antiinflammatory, antiseptic, and health promoting effects; purifier.	Clinical trials using large doses show no toxicity of curcumin, small clinical trials showed anti-cancer effects; low bioavailability does not permit clarity of beneficial effects.
Long Pepper <i>Kandanthippili</i>	<i>Piper longum</i>	Crushed and added to dishes	Aid in digestion	Anti-amoebic activity and anti-inflammatory.
Asafoetida <i>Perunkayam</i>	<i>Ferula foetida</i>	Acrid, bitter taste, strong, pungent alliaceous odor due to its sulphur compounds.	Used as a digestive aid to relieve flatulence.	No side-effects are known when used in food preparation.
Black Pepper <i>Milagu</i>	<i>Piper nigrum</i>	Used to season	Powdered black pepper and turmeric is used for cough and upper respiratory infections	No available evidence on benefits or side effects in human studies.
Black Cumin <i>Karu seragam</i>	<i>Nigella sativa</i>	Essential oilthymoquinone alkaloids and saponins	As a digestive aid	Potential to induce apoptotic activity in human breast cancer cell lines and reactivates epigenetically silenced genes; regulate blood glucose level, inhibit cholesterol absorption and produce dyslipidemic effects.
Cardamom <i>Elakkai</i>	<i>Elettaria cardamomum</i>	Along with other ingredients it contains phytochemical - limonene.	As a digestive aid, relieve flatulence, stomach cramps.	Anti-oxidant and may have anti-spasmodic properties. No known harmful effects with amounts used in food preparation.

Chillies (active compound Capsaicin) <i>Milaga</i>	<i>Capsicum annum</i>	Many varieties with varying	Believed to improve taste and health.	Capsaicin is used in topical pain medications. Large doses over a period of time can cause chronic gastritis, kidney damage and liver damages.
Cloves <i>Kirambu</i>	<i>Syzygium aromaticum</i>	Can be eaten raw or used in dishes.	Used to improve flavor; clove oil used for toothache.	No side effects are known when used in food preparation.
Cinnamon <i>Patthai</i>	<i>Cinnamomum verum</i>	Inner layer of the Bark	Used to improve flavour.	May benefit halitosis when cinnamon gum is chewed. No side effects are known when used in cooking.
Coriander leaves (fresh)	<i>Coriander sativum</i>	Seeds are usually ground and leaves and stems used as such	Used for flavour	Reported to have bactericidal properties, anti-oxidant and hepatoprotective properties.
Cumin seeds <i>Seragam</i>	<i>Cuminum cyminum</i>	Eaten raw or added to dishes	Used as a digestive aid	It has chelating power, lipid peroxidation inhibitor with highest chelating powers.
Fennel seeds/ Aniseed <i>Somph</i>	<i>Pimpinella anisum</i>	Eaten raw or used in cooking	Used as a mouth freshner and digestive aid; belived to be a galactagogue in breast feeding	Fennel seed is a potential source of natural anti-oxidants
Fenugreek Seeds/ <i>Venthayam</i>	<i>Trigonella foenum graecum</i>	Usually mixed into dishes or sprouted etc.	Help in digestion and diarrhea; belived to be a galactagogue in breast feeding	Fenugreek seeds have demonstrated a beneficial hypoglycemic effect in diabetic subjects
Garlic/ <i>Poondur</i>	<i>Allium sativum</i>	Used after sauteing in oil to flavor dishes	Used in different forms (powder, toothpaste, mouthwash, raw, crushed) Believed to have medicinal value and a galactagogue in breast feeding	Beneficial effects of CVD health, prevention of dental caries, and reductions in blood pressure.
Ginger (fresh) <i>Injee</i>	<i>Zinziber officinale</i>	Crushed and added to dishes.	Used to contribute to health and help with digestion.	Increased intestinal motility.

Onion <i>Vengayam</i>	<i>Allium cepa</i>	Organo sulphur compounds. The outer layers contain quercetina flavonoid with sulfides.	Antioxidant properties, flavor and galactagogue (increase breast milk production)	Meta-analysis of 11 Randomized Control Trials indicated hypotensive effects, increased antioxidant status, and increased bioavailability of nitric oxide. Inconsistencies in human research.
Mango <i>Manga</i>	<i>Mangifera indica</i>	Can be eaten raw or ripe. Used widely in chutneys, pickles, panna and other dishes.	Antioxidant. To add 'zest' to dishes.	No known side effects when used in food preparation but mango allergen may cause contact dermatitis of the lips or tongue. Reduces dental caries. Antioxidant (Vitamins A, C and E), dietary fiber and minerals).
Mustard seeds <i>Kadugu</i>	<i>Brassica nigra</i>	Can be used whole or ground, available in white, black and brown forms. Mustard oil is used in cooking.	Used to flavour dishes but believed to produce 'heat' when consumed in excess.	No known side effects when used in food preparation. May cause Allergy
Poppy seeds <i>Kasa-kasa</i>	<i>Papaner somniferum</i>	Used to season And flavor dishes.	May cause positive results of opiates screening.	A few reported cases of allergies to poppy seeds.
Oregano <i>Omum</i>	<i>Oreganum vulgari</i>	Used to season dishes and add a distinctive flavour Oleanolic acid, ursolic acid, flavonoids, tannins.	Believed to be health promoting	Antioxidant effects, beneficial in preventing atherogenesis and certain types of cancer.
Lentils <i>Parupu</i>	<i>Lens culinaris</i>	Used as edible pulses	It provide protein like essential amino acids isoleucine and lysine. They also contain dietary fiber, folate, vitamin B1, and minerals such as iron.	Thus, it helps in many major functions of the body like regulating our cholesterol and sugar levels
Cane sugar or Jaggery <i>Vellam</i>	<i>Saccharum cinensis</i>	<a href="#">traditional non-centrifugal cane sugar</a>	wholesome sugar and, unlike refined sugar. It retains more mineral salts.	It is beneficial in treating throat and lung infections.

Coconut <i>Tenga</i>	<i>Cocos nucifera</i>	Can be used whole or ground. coconut oil is used in cooking	Lauric acid the major component of coconut has been recognized for its antibacterial, antiviral and antiprotozoal functions.	In addition to the nutrient and fiber content in coconut the medium chain Fatty acids (MCFA) help lower the risk of both atherosclerosis and heart disease.
Rice <i>Arisi</i>	<i>Oryza sativa</i>	Can be used boiled rice.	A good source of energy and fiber.	Essential minerals in rice can help reduce abdominal ramping, while rice also helps to bulk up stools.

### SUGGESTION OF THE STUDY

- A spoon of dried fig powder mixed in milk and consumed twice a day helps strengthen the heart muscles and prevent anaemia.
- Drinking of ground Bermuda grass mixed with milk helps cure piles.
- Vegetable humming bird tree leaves helps in curing bile related diseases.
- Phyllanthus niruri taken with rocky candy helps cure kidney diseases.
- Two spoons of rose preserve consumed twice a day helps strength the uterus.
- Green tomato helps reduce weight and also cure skin diseases.
- Regular intake of papaya helps strengthen the immune system.
- *Neem* tree resin consumed with water helps cure leprosy.
- A fine paste of Vitex negundo leaves mixed with water and consumed at 10 ml quantity everyday helps cure fatty liver disease.
- Drinking an extract of dry ginger, black pepper, Borneo Camphor in equal quantity on a regular basis helps cope with asthma.
- Daily consumption of goat's milk helps in preventing seizure attacks.
- *Neem* leaf and *Bermuda* grass extract helps in preventing and controlling cancer symptoms.
- Powder of dried Periwinkle flowers, dry ginger, black pepper, cardamom and Turkey berry consumed with food helps cure cancer.
- Eating black night shade berry is very effective in curing ulcer.
- Having Veldt grape chutney helps increase appetite and also cures piles.
- Consuming fish helps cope with blood pressure.
- Substituting cumin infused water for regular water helps improve internal organ function.
- Licorice and *neem* leaves grind into a paste, made into small tablets and taken in doses help cure chicken pox.

- Extract of Indian Whitehead with dry ginger, cumin and black pepper consumed daily helps cure nerve related diseases.
- Lotus flower extract consumed twice everyday helps reduce grey hair.
- Pancakes made from a mixture of chopped balloon vine leaves and rice flour helps reduce joint pain and weakness.
- Consuming custard apple frequently helps strengthen the heart muscles.
- Extract of Tanner's Cassia, curry leaves and goose berry helps eradicate diabetes.
- Eating *Kalundai samba* rice helps strengthen the body and mind.
- Having pancakes made from finger millet flour with sesame seeds and jaggery helps increase lactation for mothers.
- Horse gram rasam helps prevent heart attack, cures skin diseases, gastric trouble and kidney stone problems.
- *Centella asiatica* leaves have memory power enhancing properties.
- Citrus fruit juices are rich with Vitamin C, consuming them on a regular basis helps prevent heart diseases.
- Steamed *Palmyra* sprout helps cure all bile related diseases and also helps strengthen the body.
- Banana stem masala helps reduce body heat and is good for overall health.
- *Neem* flower *rasam* helps cure uterus and fertility related diseases.
- Cooked *Alternanthera sessilis*, thoor dal and black pepper when consumed regularly helps with weight loss.
- Consuming fenugreek porridge helps cure diabetes and nerve related diseases.
- Substituting rice with *Kodo* millet proves to be very healthy as it is packed with vitamins and minerals.
- Substituting tea leaves with dry mango, guava and hibiscus leaves helps cure diabetes and also enhances metabolism.

## CONCLUSION

The study was focused on the preservation of good health through a well adjusted diet. Medicines are useful for immediate cure but a diet well planned is a long term solution to many of the health issues which keep occurring. Due to unhealthy eating habits we have banished such useful ingredients and diet. A healthy diet promote healing without medication and helpful in prevention of diseases.

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# 16

## CHAPTER

### **Traditional Festive Cooking of Western Uttar Pradesh – Hindu Community**

**Shalini Sachdeva\*, Arvind Varma\*\* & Vikash Prasad\*\*\***

#### **ABSTRACT**

*The Western Uttar Pradesh includes 26 districts of six divisions – Meerut, Saharanpur, Moradabad, Bareilly, Agra and Aligarh. The region is populated by two major religious communities – Hindus and Muslims. This paper highlights the major festivals, the rituals, history and dishes of the Hindu community residing in these districts. The community has traditionally been vegetarian comprising of sub communities of Brahmins, Banias, Jats etc. Their major festivals include Holi, Deepawali, Dushehra, Karwa chauth, Ahoi Ashtami, Sankat chaturthi, Makar Sankranti, Rakshbandhan, Durga Ashtami, Janamashtami, Ram navami, Mahashivaratri, Saawan ki Teej, Bhai dooj, Goverdhan pooja, Bad amavas etc. There is a distinct concept of ‘Kaccha khana’ – The food without use of any medium of fat examples dal, roti, rice, salad, raita etc and ‘Pukka khana’ – staples being cooked with a medium of fat– for example parantha, poori, kachori with multiple variety of vegetables usually excluding pulses. This paper explores the food of Hindu community through discussions and interviews with senior citizens - sexagenarian to octogenarians regarding the rituals and festival food. The study would focus on creating an inventory of dishes cooked during Hindu festivals along with its significance.*

**Keywords:** *Kutcha Khana, Pukka Khana, Festivals, Western Uttar Pradesh, Hindu.*

#### **INTRODUCTION**

Uttar Pradesh is a densely populated state in the North of India with a total area of 236286 sq kms (up.gov.in 2018) and is also area-wise the fourth largest state in India. It is mainly fertile land irrigated by rivers Ganges, Yamuna and tributaries. The state shares its boundaries with five states i.e. Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Haryana, union territory of Delhi and also international border with Nepal. Hence, this is a state with varied culture, religion, customs and regional food. It has also been a hub of many religious communities comprising of majorly Hindus and Muslims spread through all the state (Anon 2018). Today whenever there is a talk on culinary heritage of the state as a whole, the first thought is the

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cuisine of Nawabs of Awadh – the *Biryanis*, *Dum Pukht*, *Kebabs* – *Tunde*, *Galbuti*, and breads like *Naan*, *Sheermal* *Roomali roti*, exotic and rich gravies, rice preparations, *Kaalajam* etc. True that the Awadhi cuisine has a magnum share of popularity and delicacies with a special place in Indian cuisine, however the vegetarian everyday household cookery of Uttar Pradesh is loosing its rich heritage in contemporary culinary era. Due to its sheer size and varied subcultures, this paper focuses on the festive cuisine of Hindu community residing in Western Uttar Pradesh (En.wikipedia.org 2018)

## OBJECTIVES

- To create an inventory of dishes prepared in the Hindu households on major festivals in western Uttar Pradesh.
- To explain the significance of the festive food prepared.
- To summarize the prevailing rituals associated with food on these festivals and the 'Prasad'.

## RESEARCH METHODOLOGY

### Primary Data Collection

- Structured question interview with senior citizens who are originally residents of six western divisions of western Uttar Pradesh.
- Discussing with focus groups about significance of dishes and rituals associated with the festivals.

### SECONDARY DATA COLLECTION

- Books, Journals and articles from various websites and print media.

### The common cultural features of Hindu households in the 1980's and 1990's:

Hindu households in these times were strictly vegetarian, many of them omitting even onions and garlic. The senior citizens of the community even today strongly believe in the *Satvik*, *Rajasi* and *Tamasik* food (Tiwari n.d.). *Satvik* food is believed to be one which keeps the soul pure and is good for the body while *Rajasi* food is meant to be richer (including fried dishes), occasionally eaten and *Tamsik* food is the one which includes non vegetarian meals and is overall considered bad for health and was non-existent. Many families avoided onions and garlic as well. Festivals were celebrated individually within families as well as along with neighbours. Usually each family had a small '*pooja ghar*' (separate room / area for prayer) usually in or near kitchen (considered pure) away from bathrooms or bedrooms. Offering prayers to deities was done separately in individual household as well as in temples. Food and celebrations were shared between neighbours, families and relatives.

Most Hindu festivals are even today celebrated according to the Hindu Lunar Calendar (Dalal 2014) comprising of following months:

**Table 1: List of Hindu Festivals Celebrated as per Lunar Calendar and Corresponding Georgian Months**

Hindu Months	Corresponding Georgian Calendar	Major Festivals celebrated in Western UP
<i>Chaitra</i>	March-April	<i>Navaratri</i>
<i>Vaishakha</i>	April – May	-
<i>Jyeshtha</i>	May – June	<i>Vat purnima</i>
<i>Ashadha</i>	June – July	-
<i>Shravana / Saawan</i>	July – August	<i>Teej, Rakshbandhan</i>
<i>Bhadrapada / Bhado</i>	August – September	<i>Janmashtami</i>
<i>Ashwin</i>	September – October	<i>Pitr Amavasya, Navratri, Dusshehra</i>
<i>Kartika</i>	October – November	<i>Karwa Chauth, Hoi Ashtami, Diwali, Bhai Dooj, Tilkut</i>
<i>Margashirasha</i>	November – December	-
<i>Pausha</i>	December – January	-
<i>Magha</i>	January – February	<i>Sakat Chaturthi, MahaShivaratri</i>
<i>Phalgun</i>	February – March	<i>Holi</i>

Source: Hindu Lunar Calendar, Dalal, 2014

Apart from the concept of Satvik food, there is even today a distinct tradition of ‘*Kutcha Khana*’ and ‘*Pukka Khana*’ (eds. Bezbaruah & Gopal 2003)

Dishes included in a thali with *Kutcha khana* –

1. *Daal* – preferably *Arhar* (Split red gram), *Urad* (Black gram in washed form) or *Moong dal* (Split green gram in washed form) simply boiled with salt and turmeric and tempered with Ghee, Cumin, Asafoetida, Red chilli and Garam Masala. Occasionally included *Rajma* (Red Kidney beans), *Chole* (Chickpeas) and *Lobiya* (White kidney beans),
2. *Kadhi Pakoda* could be prepared instead of daal in everyday food.
3. *Saag* in winters when green leaves of mustard, spinach, fenugreek, amaranth are available in a fresh form.
4. *Mangodi* (*moong dal wadiyan*), small homemade dumplings made by grinding washed and soaked green gram, adding spices, shaping and sun drying them.
5. Seasonal dry preparation of vegetables (two to three varieties) – Ladyfinger, Colocassia, Cauliflower, Carrots, Beans, Capsicum etc depending on the season.
6. Rice – Plain boiled with salt
7. *Roti* – Wheat flour flat bread
8. Pickle – Usually homemade – Mango, Lemon, Vegetables like carrot, cauliflower, turnip, radish etc
9. *Raita* – Curd plain, salted or with boondi, cucumber or bottle gourd
10. *Mattha* - Buttermilk

Dishes included in a thali with *Pukka Khana*

1. *Aloo Tamatar ki sabzi* – Mashed boiled potato in tomato gravy typically without garlic most of the times without onions.
2. *Paneer / Matar paneer* – Cottage cheese in simple tomato gravy or cooked with green peas in the gravy.
3. *Dum Aloo* – Deep fried potatoes in a curry of tomatoes and curd.
4. *Khatta Meetha Kaddu* – Mashy green pumpkin vegetable
5. Seasonal dry preparation of vegetables (two to three varieties) – Ladyfinger, Colocassia, Cauliflower, Carrots, etc depending on the season.
6. *Poori* – Deep fried bread of wheat flour
7. *Kachori* – Same as poori but stuffed with a mixture of washed black gram which is soaked, grinded, tempered and cooked with spices to a dry form.
8. *Parantha* – Wheat flour bread shallow fried on griddle. However, unlike Punjabi paranthas, this is almost always not stuffed. It is simply flavoured with some salt and ajwain and shallow fried on griddle.
9. *Adrak mooli ka laccha* – Grated radish and ginger with some lemon juice and salt.
10. *Raita / Mattha* – Curd with boondi, cucumber or bottle gourd.
11. Sweet – Milk based: Rice kheer, *Meethe javen* (short grain vermicelli roasted and cooked with milk and sugar) or any other variety of sweet.

There is also a tradition of preparing Panchamrat – a mix of five ingredients honey, milk, curd, ghee and jaggery/sugar. Milk is for the blessing of purity and piety, curd is for prosperity and progeny, honey is for sweet speech, ghee is for victory, sugar is for happiness and water is for purity. (AstroPeep.com 2018). At times even few leaves of Tulsi plant (holy basil) are added. Distributing panchamrat among devotees marks culmination of a pooja.

#### **Festivals and the associated rituals:**

##### **1. Saawan ki Teej / Hariyali Teej**

There are three variations of Teej festival (Teejfestival.org 2018) celebrated in India–

- *Hariyali* - Hariyali teej falls on Shukla Paksh Tritiya in Shravana month
- *Kajari* - comes fifteen days after Hariyali teej
- *Hartalika* - comes one month after hariyali teej on shukla paksh trititiya in Bhadrapada/Bhado

In western Uttar Pradesh Hariyali Teej is celebrated during the month of Shravana. The festival of Hariyali Teej symbolizes reunion of Lord Shiva and Goddess Parvati after 108 births and rebirths, symbolizing marital bliss. It is equally important for married or unmarried women. Teej also marks arrival of monsoon after scorching hot summers of Northern Plains.

The festival is marked by a sweet '*Ghewar*' – a sweet prepared by deep frying a cold batter of flour and soaking in sugar syrup. This may be then topped with some mawa, nuts and silver *varq* or simply had as it is without a topping. There is a variety of *Ghewar* called *Malai Ghewar* which is topped by reducing milk and sugar to a creamy consistency and then

decorating with nuts and varq. Even today the ritual is to make *ghewar* only during the month of *Shravana* / *Saawan* in the year. The local *Halwai* (sweet shop) would prepare this and every household bought it as a mark of *Teej*.

## 2. Rakhi / Rakshabandhan

*Raksha Bandhan* or *Rakhi* (ed. Publications Division Ministry of Information & Broadcasting 1968) is a festival dedicated to the bond of sibling love. However, it is not restricted to blood relations only. The festival is celebrated on the full moon day of the *Shravana*. The name *Raksha Bandhan* literally translates to 'the tie or knot of protection'. The origin stories of *Raksha Bandhan* are various – The *Indra Dev* and *Sachi*, *King Bali* and Goddess *Laxmi*, *Santoshi maa* and Lord *Ganesha*, *Yama* and *Yamuna* etc.

The festival is celebrated across India in various forms. However, in western Uttar Pradesh the ritual is to draw 'Soan' a symbol of God / good luck drawn with *Geru* (earthy red colour also used to paint flower pots) on the sides of doors. A short *vermicelli*, approximately the size of a long grain rice is prepared with a refined flour dough. It is then sundried and dry roasted in a *kadahi*. These *javen* are cooked with milk and sugar to prepare *meethe javen*. This is first put on Soan with some *Roli* (Vermillion) and rice and then the brothers and sisters sit together. Sisters apply *Tilak* (*Saffron* / *Roli* and rice) and tie the thread of 'Rakhi' on brother's arm. In turn, the brothers promise to look after their sisters. They also offered gifts in various forms to sisters such as clothes, toys, money, sweets etc. They together eat the *Prasad* of *Meethe javen*. Apart from this usually *kutcha khaana* is prepared for the entire family.

## 3. Janmashtami

*Krishna Janmashtami* is celebrated on the *Ashtami* of the *Krishna Paksh* of *Bhadrapada* month (Anand 1992). The festival is devoted to Lord Krishna whose birth is celebrated with most fervor in Vrindavan, Dwarka and Mathura which fall under Agra division. The families keep a fast the whole day of *Ashtami*. However one can eat restricted food during *Janmashtami* fast. This includes the dishes made of *Kuttu ka aata* (Buckwheat flour), *Singhare ka atta* (water chestnut flour), *Makhana* (fox nuts), *Sendha namak* (Rock salt), *kaali mirch* (Black pepper), fruits and milk and milk products.

Each house make their own small adornment or 'Jhanki' showing essentially a baby Krishna. The place is decorated with flowers, toys, rangoli etc and keep the children of the house busy the whole day. Temples are decorated with flowers, lights and diyas. At midnight of *Ashtami*, the devotees sing the prayers and a *prasad*.

The dishes which are prepared as *Prasad* are as follows:

- *Makhan Mishri* – The favourite food of Sri Krishna, a combination of simple white butter from cow milk mixed with coarsely grinded *mishri* (candy sugar).
- *Makhane ki kheer* – Foxnuts are cleaned, fried in *ghee* and coarsely grinded. They are then cooked in milk with sugar.
- *Post (poppy seed) ki barfi* – This is made by washing, drying and roasting poppy seeds. They are then ground and cooked in sugar syrup. *Mawa* is then added and moulded in the shape of *barfi*.

- *Panjiri* – A mixture prepared by roasting and grinding dry fruits such as almonds, cashews, fox nuts, melon seed, grated coconut, ginger powder, cumin powder and adding some gond – edible Tragacanth gum. This is then mixed with sugar syrup and shaped.
- *Peda* – A sweet made with *khoya*, milk and sugar very popular from Mathura region.
- *Malpua* – A sweet deep fried pancake made up of flour and dipping in sugar syrup and decorated with nuts.

#### 4. Pitr Amavasya

As per the Hindu Lunar calendar, the first fortnight of the month of Ashwani is designated as '*Pitr Paksha*'. It is a fifteen day period when people perform rituals and prayers for ancestors. Shraddh are performed in the name of a particular ancestor on the Tithi on which he / she left the mortal world. The last day of the period – Amavasya is known as *Saro Pitr Amavasya* i.e. for all the ancestors in general and also whose tithi of death is uncertain or not know. Tarpan (liberation of water) with rice, black sesame seeds and some flowers was done on the banks of Holy Ganges.

There is the tradition of preparing *Pukka khana* and the sweet is always rice *kheer*. It is considered the food should be first served to a Brahmin, a cow, a crow and a dog on this day. This is the day to show kindness to needy helping the contributing to peaceful journey ahead.

#### 5. Navratri

*Navratri* is a nine day festival celebrated in entire India with much fervour in varied forms. It is celebrated twice a year in the months of *Chaitra* and *Ashwin* to honour Mother Goddess Durga in all her avatars (forms). It involves eight days of fasting and feasting on some restricted food ingredients such as *Kuttu ka aata* (Buckwheat flour), *Singhare ka atta* (water chestnut flour), *Makhana* (fox nuts), *Samvat* or *Sama rice*, *Saboodana* (Sago), *Sendha namak* (Rock salt), *kaali mirch* (Black pepper), cumin seeds, fruits, nuts, milk and milk products. Apart from this some vegetables such as potatoes, pumpkin, colocassia, cucumber & lauki (Bottle Gourd) can be cooked with some rock salt and black pepper. The medium of cooking the dishes should be Desi ghee which is considered pure. Usually a mixture of equal quantities of buckwheat flour and water chestnut flour is used to prepare batters and dough as buckwheat flour is considered hot while water chestnut flour is considered cold by nature (Blog.kkaggarwal.com 2018). The dishes which are cooked during this festival are divided into two types:

Fasting days: Apart from many other combinations of above said ingredients following are prepared most often -

- *Kuttu aata ke chile* – Pancake made of buckwheat flour with some rock salt and black pepper powder.
- *Kuttu ki Poori* – Preparing deep fried breads with a dough made up of buckwheat flour, salt and some mashed potatoes.
- *Aloo kuttu Pakoda* – Potatoes cut in any even shape, dipped in a batter of buckwheat and water chestnut flour and then deep fried.
- A savoury made up of fox nuts, potatoes, sago and seasonings.
- *Vrat ke chawal* – A simple boiled rice prepared with samvat rice.

On the ninth day – A complete pukka khana is prepared essentially containing *Kaale chane*, *Sooji Halwa* and *Pooris*. This is then served to nine young girls first and then given in temple. Thus the pooja is considered complete and fast is broken.

Though the rituals remain common in both Navratris, in the month of *Ashwin*, on the first day of *Navratra*, there is a tradition of sowing some wheat in a small patch in or near *Pooja Ghar*. They are sprinkled with some moisture each day by the eldest male member of the family. They are harvested on the tenth day of planting which is *Dusshera*. This is also the period where the young and old children of the community prepared and staged the story of Lord Rama as *Ramleela* for entire community.

#### 6. *Dusshehra / Vijaya Dashami*

A major Hindu festival celebrated on the tenth day of Ashwin month after Navaratri. This festival is celebrated by burning the effigy of Ravana, Meghnath and Kumbhkarna denoting destruction of evil.

In the morning a floor art of *Dusshehra* is made with Wheat flour, Cow dung cakes and *Doob/Durva* grass in the courtyard of the house. This is where idol of Lord Ganesha is kept along with arms in the house such as a *knife*, *laathi*, bow and arrow, *gada* etc. Fresh harvest of sugarcane and radish is also kept as food. Entire family gathers and prays Lord Ganesha, Lord Rama and the arms as a symbol of successfully defending ones honour. A brunch is prepared thereafter including *kutchra khana* i.e. traditionally *Urad dhuli dal* (Washed black grams), and *Lauki Raita* is included apart from other food items.

#### 7. *Karwa Chauth*

The festival is celebrated on the chaturthi after the full moon in the month of *Kartik*. All married women fast the whole day from sunrise to sunset without a drop of water, praying for long life of their husband. Fruits are offered as *prasad* to Gauri mata but are eaten only after moonrise and prayers. *Pukka khana* is prepared.

#### 8. *Hoi Ashtami*

A festival celebrated for well being of children, it is held on *Ashtami* after the full moon in the month of *Kartik*. Though the festival is celebrated in many North Indian states, the customs vary. In western Uttar Pradesh, a Hoi drawing is made with Geru near the pooja ghar of the house in the morning. Mothers keep a fast for the health and happiness of her sons. The pooja is held in afternoon essentially with meethe pooe. *Pooe* (sweet dumplings) are made by deep frying small dumplings from a thick batter of flour, sugar, water and fennel. This is then kept in seven plates and prayed. These dumplings are then given in temple or fed to the cows. *Meethe pooe* are also prepared as *prasad* for household. The fast begins with sunrise and ends when stars are seen in night sky. *Pukka khana* is prepared.

#### 9. *Diwali*

This pan India festival is celebrated on the *Amavasya* of month of Kartika. On this day people celebrate the returning of Lord Rama to Ayodhya after spending fourteen years in jungles with wife Sita and brother Lakshman. People of his kingdom celebrated his homecoming by lighting Diyas (oil lamps). This is thus a community festival which involves offering a huge variety of sweets to friends and family, decorating and cleaning the house, lighting oil lamps (and candles) and burning crackers. On this festival Lord Ganesha and Goddess Laxmi are prayed to bring wealth and happiness in the family.



In western Uttar Pradesh there is a tradition for praying on a day before as *Chotti Diwali* and the Amavasya as *Badi Diwali*. On *choti diwali*, after the sunset, *Diyas* are lit, a prayer is held and the prasad is in the form of Panchamrat and a sweet. The next day is Badi Diwali. In the morning, *Sooji Halwa* is prepared and Lord Hanuman is prayed. Halwa is then offered as prasad. Ritual is to prepare 'Saurti' a symbol of Goddess drawn with Geru – earthy red colour also used to paint flower pots, besides Hoi Ashtami. During evening prayer, a betel leaf, a silver coin and a batasha is stuck on saurti with turmeric paste. *Diyas* are lit and Prasad is in the form of Pamchamrat – Apart from this a sweet, *Kheel* (puffed paddy), *Batasha* (white disc shaped sweets made of rice powder and sugar) and *Khaand ke khilone* (toy shapes of sugar base).

The sweets which is cooked during this festival are *Ghiya ki lauz*, *Badam ki barfi*, *Besan ke laddoo*, *Gulabjamun*, *Kaju barfi*, *Gajar ka halwa* and many more.

The savouries cooked during the festival are *Khasta kachori* with potato *bhaji*, *Mathri*, *Dahi pakodi*, *Namakpara*, *Besan ke sev* etc.

In Meerut division there is a tradition of offering namkeens (savoury) – Geeli (wet) and *sukhi* (dry) to the guests along with sweets and nuts.

- Sookhi Namkeen is prepared with aloo laccha, namakpara, kalmi bade (similar to deep fried small pieces of gatta), *papdi*, *tikki*, small aloo besan pakoda mixed together with salt, chilli powder, cumin powder, *chaat masala*. This is *sukhi namkeen*.
- Geeli Namkeen (savoury) is prepared by adding some thin curd and saunth *chutney* (tamarind jaggery *chutney*) to *geeli namkeen*.

## 10. Annakut

This festival is celebrated on the first lunar day of shukla paksh in kartik and is celebrated with much fervour in Vrindavan. The story behind this is that to protect his village and people from the anger of Lord *Indra* – the God of rains, Lord Krishna lifted the entire *Goverdhan Parvat* (the mountain) and placed it on top of his little finger. All the villagers and animals took shelter under the mountain. He stood still like this for seven days continuously till Lord *Indra* realised his mistake. Krishna usually ate about eight food items each day hence in seven days he would have eaten 56 dishes. So, on eight day the whole village made fifty six dishes for Lord Krishna out of gratitude for his protection.

As the legend says, the fifty six dishes – *Chhappan Bhog* (Shree Hindu Temple and Community Centre – Hindu Mandir Leicester 2018) consisted of all the Lord Krishna's favourites. It consists of seven types each of cereals, vegetables, fruits, dry fruits, sweets, *namkeens* and drinks. Today there are some variations in the bhog but it is said that the meal consists of all the favourite foods of Lord Krishna. Some of the dishes include *Dal*, *kadhi*, *saag*, *vegetables*, *ghee*, *makhan mishri*, *chila*, *poori*, *kachori*, *raita*, *badam milk*, sweet rice etc and even *paan*, *supari*, *elaichi* and *saunf* to culminate the meal. In many households this festival also represents praying and feeding cows on this day.

## 11. Sakat chaturthi/Tilkut

This festival is celebrated on Krishna paksha Chaturthi during the month of Magh. This is a prayer to Goddess Chauth Mata for children of the house. All mothers pray Lord Ganesha and *Chauth Mata* to bring happiness and prosperity to their children. This festival is also popular in Uttar Pradesh as *Tilkut Chauth*. *Pukka khana* is prepared for this festival.

The dish cooked during this festival:

- *Til Kut* - Roasted white sesame seeds and sugar / *boora/mawa* are pound together as *Til kut Prasad*. They can also bind in the form of *laddoos* or as a dry powder.
- *Shakkarpara* or *Gudpara* – Nuggets of refined flour coated with sugar or jaggery.

## 12. Holi

A *pan* India festival celebrated which is special in the region of Braj area of Uttar Pradesh. There are different forms of Holi in Western Uttar Pradesh itself.

*Holika dahan*: A day prior to the Holi, in evening a community bonfire is lit symbolically representing the legendary story of Holika dahan. Many people bury a pot of barley seeds in the fire. The state of seeds after the fire dies out is said to be the state of harvest i.e. well roasted seeds indicate good crop.

Next day the colourful festival of *holi* where people colour each other, sing and dance. Holi is celebrated in many forms (Vemsani 2016) apart from applying dry or water colours on friends and family.

- a) *Barsana Holi / Latthmar Holi*: Barsana is the village to which deity Radha belong. It is said that Lord Krishna and his friends visited his beloved Radha's village on this day and playfully teased her and her friends. The girls then chased him away with lath (a wooden stick). The tradition is kept alive between these villages.
- b) *Mathura ki Holi*: This is a special festival for the people residing in Mathura, Vrindavan and nearby areas as this festival is associated with Radha and Krishna. Each Krishna temple is decorated with colourful flowers.
- c) *Vrindavan ki holi*: Also popular as *phoolon ki holi*, according to legend, Krishna was jealous of Radha as she had a fair skin while he was dark. He decided to colour her skin and sprayed her with colours of flowers. This tradition is marked today with a holi celebrated by using flowers initially, then dry colours and finally water colours.

The dishes which are cooked during the festival are:

- *Gujiya* – A sweet dumpling made with refined flour and sooji dough, stuffed with khoya and nuts and deep fried. It may be lightly coated with sugar syrup.
- *Mathri* – A savoury made with rounds of dough made with refined flour, fat, ajwain and salt.
- *Namak para & Gud para* – Savoury triangles of refined flour dough which are deep fried. If coated with jaggery, they are *gud para*.
- *Kanji* - Fermented water with red carrots or moong dal dumplings
- *Dahi badas* - Moon dal dumplings in curd with spice tamarind chutney.
- *Thandai* – A drink made with a mixture of almonds, fennel seeds, magaztari seeds (watermelon kernel), pepper, vetiver seeds, cardamom, saffron, milk and sugar. Though there is a popular tradition of mixing little Bhang (Cannabis) in Thandai, the use is limited to few areas. Not all the families encouraged this tradition due to intoxication.

### 13. Badamavs / Vat Purnima

This festival is celebrated on the full moon day of Jyeshtha month. The festival is celebrated in honours of Savitri, the wife of Satyavaan who brought back life of her husband from Yama – the God of death by her perseverance, wit and devotion. All married women fast on the day and tie a thread around a Banyan tree (Vat) praying for safety of their husband. Pukka khana is prepared.

The special dishe cooked during this festival is:

- *Meethi poori* – Adough is prepared with wheat flour and sweet water (sugar dissolved in water). It is rolled and deep fried.

### 14. Makar Sankranti

This is one of the few festivals in India which are observed as per Solar movements. Most festivals follow Lunar Calendar. This festival refers to the Surya (Sun) and marks the first day of Sun's transit in Makar (Capricorn) marking the end of winter solstice. The festival is celebrated in many parts of India in various forms. In western Uttar Pradesh it is also known as Khichdi.

The dishes which is cooked during the festival:

- *Khichdi* - Unlike many states *Khichdi* here is made with rice and split black gram or rice with split green gram. It is usually accompanied with *Mattha* (Buttermilk), *Papad* and *Pickle*.
- There is also a tradition of praying Sun God and offering the khichdi, jaggery, ghee, peanuts and rewari (a small sweet made of jaggery and white sesame seeds). On this day it is believed that one must donate to the needy as much as possible in various forms such as food, clothes etc.

## CONCLUSION

The culinary heritage of Western Uttar Pradesh is very rich. There is a vast variety of dishes which are traditionally prepared on festivals and carry their own significance in the form of *satvik* or *rajasi* food and avoiding *tamasic* food completely which is visible through the concept of *kutcha khana* and *pukka khana*. The dishes carry an array of ingredients, taste and methods of preparation. This also reflects how the local produce of wheat, sugarcane and vegetables was involved in food. Animals were considered an asset and milk and milk products were in abundance. The inventory of dishes in this project covers about hundred of them and is extendable to a bigger number. The Hindu cuisine of western Uttar Pradesh is unique on its own and is clearly distinguishable from the popular Awadhi cuisine in ingredients and preparations.

## LIMITATIONS

The original cuisine is modified with younger generation. Most modern households have both the spouse working with very less time and energy devoted to festive cooking. This has resulted in many festive dishes are either not being prepared or bought from shops rather than made at homes. There are many lifestyle and health challenges that have altered the food habits and festive foods. The recipes and methods are in the minds of the senior citizens only most of who are now unable to prepare delicacies on their own due to various

reasons. It was a time consuming and challenging task to administer and get questions answered.

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# 17

## CHAPTER

### Sijhano: A Sheetal Shashti Food Ritual

Vikash Prasad\* & Shalini Sachdeva\*\*

#### ABSTRACT

*Shashti is a festive day which is celebrated in different part of India for the welfare of the children by their mothers. In west Bengal district of purba burdwan it is celebrated as SheetalShasti during the Magh Month (spring). During this festival goddess Sheetala is worshiped who is considered as goddess of coolness. In purba burdwan district on the day of SheetalShasti it is said that the oven will not be lit and only the cold food cooked a day before is served to goddess as a symbol of coolness. This food ritual practiced in most of the Bengali family is termed as Sijhano. On this day a special dish is prepared which is also termed as Sijhanao. Thus this paper would try to find about various beliefs of the people about SheetalShasti, the concept of Sijhano- the food ritual and the inventory of the major dishes which is cooked on this day.*

**Keywords:** Sijhano, West Bengal, Sheetala, Food Ritual and Shashti

#### INTRODUCTION

*Shasti* is a festival celebrated throughout India by different communities. *Shasti* is a Hindu goddess worshipped as a Protector of children specially a male child she is also worshipped as goddess for vegetation and reproduction as it is believed that she protects children from ill health and also assists in childbirth. In most of the pictures of *Shashti* goddess she is portrayed as motherly figure riding a cat and nursing or holding one or two kids like a mother.

Goddess *Shasti* is worshipped on sixth day of each lunar month of a Hindu or a Bengali calendar she is also worshipped on the 6th day after childbirth.

She is specially worshipped in Eastern part of India though we can also see its presence in Northern India state of UP and in western part of India in state of Gujarat.

Goddess Sheetala known as the cool one. According to people, when properly worshipped she is a God of forgiveness but if ignored she punishes by fever followed by smallpox.

In the iconography of goddess Sheetala we can see that she carries a broom in one hand. Which signifies is eager to spread or the dust the germs, It means if she is angry

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she will spread the disease with the help of broom and if she is happy she will Dust the disease with the help of a broom.



In the second hand she holds a pot full of pulses or full of water. The pulses here signify the germs and viruses responsible for the heavy fever and smallpox.

In third hand she holds a fan for collecting the pulses i.e. germs.

In forth hand she hold a pot full of Ganga water for purification. The pot holding cold water/ganga water it signifies a healing tool used to provide coolness to the people suffering from heat of fever which is in Hindi or Bengali termed as Sheetal. Hence the Goddess is termed as Sheetala Mata.

## OBJECTIVES

1. To find about food rituals practiced during the SheetalShasti festival in purba burdwan district of west Bengal.

## METHODOLOGY FOR THE STUDY

The study would be based on the secondary information available at various source of information like cook books, Books by food historian, blogs and various websites.

The primary data is collected by the personnel interview of the old lady who performs these rituals at their home.

## LITERATURE REVIEW

West Bengal is state in eastern part of India which came into existence in the year 1947. It has total of 23 districts.

West Bengal is state which is known for its Devi Puja (Puja stands for worship). One of the most famous Devi Puja for which west Bengal is very famous is Durga Puja. But there is many other Devi Puja which is being followed by the people of west Bengal like Maa Jagadhatri, Maa Mansa, Maa Sheetala, Maa BipotTarani etc. This study would be focusing on Maa Sheetala and more specifically when she is worshiped Magh Shasti.

Shasti means the sixth day of lunar month. People of west Bengal follows its own calendar known as Bengali calendar.

<i>Baishak</i> <i>Chandan Shasti</i>	15th april-15th may	summer/Gorom
<i>Jyestha</i> <i>Jamai sashti</i>	19th may-15june	
<i>Ashar</i> <i>Ashar kum as Shasti</i>	16thjune-17thjuly	Rainy/Borsha
<i>Sharaban</i> <i>Shravan lotan Shasti</i>	18thjuly-17th august	
<i>Vadra</i> <i>Vadra manthan sashti</i>	18 July-17 Sept	Autumn/Shorot
<i>Aswin</i> <i>aswin durga sashti</i>	18 sept-18 oct	
<i>Kartik</i> <i>Kartik Pratihan Sashti</i>	19 oct-17 nov	Hemonto/ dry
<i>Agarhan</i> <i>Agarhan Hari Sashti</i>	18 Nov-16 dec	
<i>Pous</i> <i>Pous Annarupa Sashti</i>	17 Dec-15 Jan	Winter/sit
<i>Magh</i> <i>Magh Shilal Sashti</i>	16 Jan-13Feb	
<i>Falgun</i> <i>Flagun Gorupini Sashti</i>	14 Feb-15Mar	Spring/
<i>Chastra</i> <i>Chastra Ashok Sashti</i>	16 March-14 April	

Source: of information: [www.wikibooks.org](http://www.wikibooks.org))

According to various vrat kathas there are many story version of goddess Sheetala. There is a very famous story about the origin of goddess Sheetala it is being said by villagers that she is born from cooled Ashes of a sacrificial fire then Lord Brahma named her as the cool one, also termed as Sheetal (Means Cold) in Hindi or Bengali .When she was named as Sheetala even Lord Shiva was present on that moment and he gifted God Sheetala with a fever demon (known as *Jaur* in Bengali) as a servant.

After receiving the gift goddess Sheetala went to the kingdom of God Indra to get worshipped but she entered into a disguised form and nobody could recognize her and she got ill treated at the court of God Indra, after getting insulted she got angry and ordered her servant (fever) to take possession of their bodies. Everybody at the court got fever and after a while smallpox erupted on their bodies. After getting horrified everyone went to Lord Shiva to know the reason and cure mint from the disease. Lord Shiva informed them that day ill treated goddess Sheetala when she came to the court of God Indra because of which they

have been punished by this disease show if they worship and get pleased to goddess Sheetala she can cure them by her coolness.

In West Bengal goddess Sheetala is associated with smallpox and heavy fever but when we come to North India she is associated with Protector of children which is almost similar to goddess Shasti in West Bengal but when we come to western part of a country that is Gujarat they associate goddess Sheetala as a giver of good fortune to husband and children. Shasti is worshipped every month but in Purba burdwan district of West Bengal most of the population celebrate Magh shitalasasti.

Smallpox is usually known as a *Basant Rog* (spring disease) that is a spring disease, because in Eastern part of a country epidemics strikes during spring season during this season the air is very dry because of which the Deadly virus is easily transmitted and travel too far off places does the disease spreads very quickly and to a wider Horizon to get the cure mint or as a precautionary measure goddess Sheetala is worshipped during mark Shitalasasti in West Bengal.

In Purba burdwan district of West Bengal on the day before Sheetal Shasti of Magh. The cooking of *bhog* (food for God or the food which is offered to God) and the cooking of *Prasad* (offered to the public as an offering from God and as a feast to the people who have been invited at home to pay respect to Goddess Sheetala) cooking is done on the day of Basant Panchami (a day before Sheetal Shasti) the complete cooking is done and kept cold.

This practice of cooking a day before worship and offering cold food to goddess Sheetala is termed as *Sijhanao* in Purba burdwan district of West Bengal. This paper would help us to get an Insight of this old tradition or a cooking technique followed by the villagers and the City people to show respect to goddess Sheetala. *Sijhanao* is a festival which is named after a dish called *Sijhanao* or *Gota sheddho* (*Gota* is a Bengali word which means whole food) and (*Sidho* is also a Bengali word which means boiled) it is being believed by the people of Bengal that as goddess Sheetala is a God of coolness no hot food should be offered to goddess and her devotees. They are of firm believed that there should not be lightning of oven at home to cook food on that day. The head lady of the family who is supposed to perform the rituals cannot even take bath with hot water on both the days. Even though it is winter season at west Bengal. The lady performing ritual it's supposed to take bath by cold water.

According to the people there are few guidelines which the ladies involved in cooking *Sijhanao* must takes care of:

1. The food should be Satvik in nature it means very less use of oil or any fat and spices which is considered as hot in nature.
2. Avoid the use of onion and garlic as it is said that onion and garlic is an ingredient which is considered as toxic in nature means that destruction.
3. The food ingredients used for making *Sijhanao* should be whole in shape.
4. The use of knife is prohibited.

Every household has a different varied recipe for *Sijhanao* or *Gota sheddho* some use Ginger and some do not because everybody has a different perception few people are of the opinion that anything which is a root vegetable should not be used while cooking *Sijhanao* because they believe that it's a home to many organism living underground so if they use this food,



it is considered that they are harming the life of those organism which is not desired by goddess Sheetala.

Shitalasasti is the day when no oven is lit, this is also the day when the “*Sheel Nora*” which is the grinding stone used in the homes of West Bengal which is worshipped, the slab of the stone known as “*Sheel*” and the pestle which is used to grind spices is known as “*Nora*” it’s a symbol of mother child relationship it is being also said that worship of *Sheel Nora* is a symbol of sexual Union and procreation.

There is one more story which I came across from the people about the shitalasasti is that a Brahmin women had seven male children by the grace of Sheetala Devi. One day she forgot to observe this vow and bathed by hot water and even eat hot food as a result of which her seven children and husband died immediately she got frightened and in pain she ran toward the forest area. There she saw an old lady in flames this old lady ordered these Brahmin women to get her curd or cold water. She ran and got the bowl of curd and cold water which when applied on the body of burning lady the fire got extinguished this old lady was goddess Sheetala. She asked the Brahmin lady to go back home and apply this curd and water in the body of husband and her seven children as a result of which all of them got alive again.

In this story also it signifies is that ill fate happened to the lady because on the day of SheetalShasti she had a hot food which signifies that because of having hot food this hotness got pain at the body of goddess Sheetala because of which her servant that is the fever and smallpox occupied the body of the husband and the children of the Brahmin lady which leads to the death but when she applied the cold curd or water at the body of the burning lady and the husband and children all of them got relieved from the pain. People of Bengal firmly believe on these stories and hence they don’t use any hot food on the day of worship of goddess Sheetala this practice is followed till date in a name of SheetalShasti also known as *Basora* and *arandhan* ( no cooking)

Ingredients	Quantity
Baby Potatoes	5 or 7 or 9 ( in odd number)
Broad Beans/Seem	5 or 7 or 9 ( in odd number)
Eggplants	5 or 7 or 9 ( in odd number)
Spinach	5 or 7 or 9 ( in odd number leaves)
Poi Saag	5 or 7 or 9 ( in odd number leaves)
Ginger	1 tbsp
Turmeric	1tbsp
Salt	As per taste
Arhaar Daal Whole/Pigeon peas	50 grams
Hara Moong Daal Whole/Moong Beans	50 grams
Moong Daal Dhulia	50 grams
Drum sticks flowers	50 grams
Green Chilli	As per taste

Source: of information: Self observation during festivals.

### Procedure

- Wash all the lentils properly after frying it in oil.
- Put the water at boil and all the lentils, add salt and turmeric and get it to boil.
- Now add all the whole vegetables into the boiled lentils and cook until it is cooked.

While interviewing the sample one thing which was common is that the number of vegetables to be used are in odd numbers wither three, five, seven or nine. As in Hinduism these numbers are considered to be very auspicious and spiritual, that's the reason it is being used.

Number five (5) known as Pancha in Sanskrit has a unique significance in various tenets of Hinduism. It is widely used and associated with various concepts of Hindu philosophy, religion, spirituality, aayurveda, astrology etc. It is a divine and sacred number that represents various subtle elements of nature. Like *Panch tantra*, *Panchayat*, *Panchami*, *panch pandav*, *panchamrit* etc.

Number seven (7) is one of the most used numbers in Hinduism; recognized as a spiritual and sacred number. Known as Saptha (also spelled as Sapta) in Sanskrit; number seven is a symbolic representation of various divine concepts and philosophies of Hindu Sanatana dharma and Sanskruthi. It represents seven days in a week; seven colors of rainbow VIGBYOR; *Saptha-Swaraas* (Seven musical notes) Sa; Ri; Ga; Ma; Pa; Da; Ni; etc. Saptha means seven; *Sapthathi* means seventy; *Saptaka* means a group of seven and *Saptaaha* means a week long programme.

In Sanskrit # nine is known as Nava; and Navathi means ninety; Navaka means group of nine, fresh, new, blooming etc. It is such a fascinating, sacred and divine number that it is associated with several doctrines and concepts of Hindu philosophy, religion and spirituality. For example *Nav Durga*, *Nava Graha*, *Navratna*, *Nav ratri* etc.

On the day of *Sheetal Shasti* the major dish which is cooked is *Sijhano*, but along with *Sijhano* there are many other dishes which are cooked as this is being offered as feast to the people who have been invited at home. The list of dishes is as follows:

- *Begun Bhaja*
- *Aloo Bhaja*
- *Aloo sedho*
- *Panta Bhaat*
- *Tamato Chutney*
- *Papod*
- *Chorchori*
- *Aloo Posto*
- *Narkel Nadoo*

### CONCLUSION

*Sijhano* is a very old food ritual practiced at west Bengal since ages. This is done to worship goddess *Sheetala*. On this day the stale food is offered to the goddess and her devotees.

This practice is getting influence with modernization. Many family has stopped the celebration is it is a very tedious process and involves lots of rules and regulation. People have started adding variation. The limitation of the study is that it is worshiped once a year now so could not experience the rituals in more than two households. So other variation of the same rituals could not be experienced.

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# 18

## CHAPTER

### A Study on the Role of Food in Ayurveda

*“Whether it Can be a lifestyle option or not”*

Zubaida Naushad\* & Priyadarshan. F\*\*

#### ABSTRACT

*The present modern era has brought about a dramatic change in the life style of people leading to a more sedentary lifestyle with unhealthy food intake. Therefore a concerted effort by health care professionals across specialties is needed to identify this health problem and treat it at an early stage. In Ayurveda, Ahara(diet), Nidra(sleep) and Bramhacharya (celibacy) are considered as the sub pillars of life. Any treatment includes a change in life style and food habits of the individual, and therefore, a holistic Ayurvedic approach has a better answer for many chronic problems than the modern treatment modalities.*

*Ayurveda is a traditional system of medicine native to India. In Ayurveda, regulation of diet is very crucial, since it examines the whole human body as the product of food. Ayurveda illustrates how an individual can recuperate himself by establishing the connection between the elements of life - food and body. According to the Ayurvedic concept, food is responsible for different aspects of an individual, including his physical, temperamental and mental states. But to stay healthy, maintaining a stable healthy diet routine is essential. The body absorbs nutrients as a result of digestion. In order to create healthy cells, our body must be able to extract all the required nutrients easily from the food we eat.*

*Ayurveda places proper guidelines on the types of food that we must consume, in the right proportions and combinations. An important component of Ayurvedic diet and nutrition is to minimize the amount of toxins in what we consume and to maximize the amount of nutrients. What we eat, determines our overall health and well-being.*

*The dietary practices in Ayurveda encourage a conscious way of living and it encourages us to embrace food as life giving energy. It is a practice based on science and spirit, and thus Ayurveda influences us on all levels of our conscience.*

*This study intends to explore the need for going back to our roots and discovering yet again the basic tenets handed over to us by our ancestors about healthy living. It also proposes to explore the*

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*scope of bringing Ayurveda into mainstream professional cooking. Chefs and the industry in general, can play a very big role in reintroducing Ayurveda to the forefront, thus reclaiming its lost glory and at the same time re-establishing it as a lifestyle alternative for healthy living.*

**Keywords:** Ayurveda, Ayurvedic Diet, Holistic Healing, Lifestyle Alternatives.

## INTRODUCTION AND STATEMENT OF PROBLEM

The modern era has brought about a dramatic change in the way of living of people with a more sedentary lifestyle and unhealthy food intake. Lifestyle diseases have been increasing at an alarming rate due to the prevalence of overweight and obesity, even while under-nutrition continues to be an important public health issue. However this forbiddingly high rate of lifestyle diseases in India demands urgent action. Therefore a concerted effort by health care professionals across specialties is needed to identify and halt this disturbing trend.

Our food habits have changed drastically over the last couple of centuries. Increased use of refined and processed food ingredients like flour and sugar, processed and preserved meats, canned and bottled food products, frozen and partly cooked food products etc; have taken a toll on human health. Pesticides & preservatives present in the food is one of the main reasons for many of our diseases. Only the encouragement of healthy lifestyles in the population, including physical activity and dietary modifications would help to reduce the high burden of lifestyle diseases in India. It needs to be noted that many of these factors or hazards can be averted if we go back to our old ways of living. For example, sugar which is the reason for many diseases can be substituted with jaggery or palm sugar, which is also a rich source of calcium, iron and vitamins and provide a lot of health benefits in addition to sweetness. Traditional preparation methods (grinding stones & mortar and pestle) and utensils of clay & brass had its own benefits.

Hoteliers and chefs can play a very important role in popularizing ayurvedic food and bringing it to mainstream cooking. It becomes very relevant in our present scenario, as the public is highly conscious and aware of the hazards of wrong eating habits and there is a shift in focus towards making healthier choices and attaining physical fitness. Ayurveda as a concept becomes the perfect solution for all these concerns because at the very core, it promotes holistic healing. Each hotel can have an ayurvedic restaurant or at least the existing restaurants can have an ayurvedic menu. In-house ayurvedic practitioners should be hired to guide guests suitably. At the school and college level itself children should be encouraged to make healthy choices and live a healthy life. Government can introduce subsidies, incentives and support for Ayurvedic restaurants and thus promote India as a destination for health and holistic healing.

The present study reveals the role of food in Ayurveda along with its seasonal impacts. Traditional food and dietary habits in India have come down from Ancient Vedic times. Ayurveda contains a wealth of knowledge on health sciences and traditional food and their dietary guidelines are prescribed in it accordingly. There is so much similarity between ayurvedic dietetics and traditional food that many of the traditional health food in India can be called as Ayurvedic food. This study describes the concept of Ayurvedic health food in India and tries to analyze the scope of Ayurvedic restaurants in India and abroad, as a lifestyle option for the health-conscious. In this era of globalization, with the burgeoning focus on healthy lifestyles, health conscious citizens around the globe will benefit from the wealth of knowledge on traditional Indian Ayurvedic food.

### OBJECTIVES OF THE STUDY

- To study about the role of ayurvedic food and its seasonal impacts.
- To identify the food culture in the modern era and its problems.
- To study about the role played by the chefs in popularizing ayurvedic food items.
- To study about the consumer expectation about the ayurvedic food.

### HYPOTHESES

1)  $H_0$ : There is no significant relationship between ayurvedic food and health.

$H_1$ : There is a significant and close relationship between ayurvedic food and health.

### RESEARCH METHODOLOGY

The role of ayurvedic food for ensuring health and wellness in combating the high incidence of lifestyle diseases was verified through validated experiences of the subjects examined. The food habits, seasonal impacts and ayurvedic food items were taken as the indicators in general. The study is primarily based on the primary data, which was collected from gourmets chefs of high class hotels and restaurants.

The study is descriptive in nature and hence designed as an empirical one based on the survey method. Several issues relating to the main aspects of the study had been discussed in detail with chefs, experts, researchers and other eminent personalities. A descriptive method of study followed to understand whether the gourmets are satisfied with their experience at such ayurvedic restaurants.

### SOURCE OF DATA

The study is based on both primary and secondary data. Primary data were collected using structured questionnaires. The sources of secondary data were food magazines. Both primary and secondary sources of data are collected for the study .

### PRIMARY DATA

It has been collected by distributing the structured questionnaire to selected chefs and gourmets.

### SECONDARY DATA

A detailed survey of literature has been undertaken in order to get familiarised with the various aspects of the ayurvedic food. They normally conduct studies and publish articles about Ayurvedic science and the different treatment modalities. To evolve an appropriate methodology for the study and to formulate a conceptual framework for the study, the secondary data was immensely helpful. For these purposes, various secondary sources like books and periodicals, research articles, seminar reports, newspapers, study reports of expert committees, departmental publications, plan documents, unpublished dissertations, etc were surveyed.

To make it more clear for data presentation, and as a substitute to replicate the data tables as such, appropriate data to the point under discussion only have been presented. To avoid bias in interpretation of data, statistical analysis has been resorted to the details of which are

furnished along with presentation and discussion of data. Most of the data presented in tables, bar charts, pie diagrams, multi-dimensional scaling, etc., are also used to illustrate the data.

### **SAMPLE AREA**

The sample area of the study is a selection of chefs and gourmets.

### **SAMPLE SIZE**

The Sample size is 100 samples. Selection of the sample from chefs and gourmets were selected using simple random sampling.

### **SAMPLING TECHNIQUE**

Sampling technique used for the study is Simple sampling technique.

### **SAMPLING DESIGN**

Simple Sampling method has been used for selecting the respondents from the universe.

### **COLLECTION OF DATA**

The data were collected by distributing questionnaire to the samples selected for the study. Multiple choice questions, open-end questions, rankings by the respondents and a five point ranking scale developed by the researcher especially for this study in conformity with statistical methods and principles were used wherever necessary. The respondents were encouraged to file the questionnaires freely and frankly to express their opinions and suggestions. The researcher collected all the responses personally from the respondents this ensured the secrecy of the responses and the privacy of the identity of the respondents.

### **ANALYSIS OF THE DATA**

The collected primary data have been statistically processed, classified and tabulated by using appropriate methods. Since the sample size is large, tables, diagrams and statistical results have been derived, the researcher has developed a summated rating scale (Likerttype scale) known as economic impact assessment scale. In order to test the soundness of the measurement, appropriate statistical tools have been employed. Internal consistency method on 100 samples was employed to test the reliability of economic impact assessment scale. Various tools like chisquare ,ANOVA etc are used for statistical Analysis.

### **NEED FOR THE STUDY**

Ayurveda has emerged as an indigenous form of medicine which originated in the Indian sub-continent. Due to enormous rise in unhealthy eating habits and lifestyle diseases, governments and non-government organizations worldwide are promoting and intensifying their efforts on inculcating healthy food habits and spreading awareness on the harmful effects of thoughtless eating.

Though many studies are conducted on the effects of Ayurvedic foods on health, the researcher could not find any valid study on the rolle of hoteliers in promoting Ayurveda as a lifestyle option for healthy living. Hence the researcher felt the need for a study to find the effectiveness of Ayurveda and health and the role of hoteliers in promoting the same.

## AYURVEDIC DIET

India has a rich heritage of traditional medicines and the traditional care system has been systematically evolving and developing since many centuries. Ayurveda is one of the oldest and most structured of these, and its origin dates back to the ancient times around 5000 B.C. In developing countries like India, traditional medicine is often the only accessible and affordable treatment available.

Ayurveda is a way of healing and a way of life that takes into consideration the person, in his complete mental and physical being. In Ayurveda, *Ahara* (diet), *Nidra* (sleep) and *Bramhacharya* (celibacy) are considered as the sub pillars of life. Treatment for any illness includes a change in the lifestyle and food habits of the individual, and therefore, this holistic approach has a better answer for many chronic problems than the modern treatment modalities.

Food is considered to play a major role in maintaining the health of human beings. To stay healthy, maintaining a stable and healthy diet routine is essential. The body absorbs nutrients as a result of digestion. Ayurveda states that the food is first converted into *Rasa* (plasma) and then followed by successive conversions into blood, muscle, fat, bone marrow, reproductive elements and finally body fluids.

The regulation of diet is very crucial, since it examines the whole human body as the product of food. Ayurveda illustrates how an individual can recuperate himself by establishing the connection between the elements of life - food and body. According to the Ayurvedic concept, food is responsible for different aspects of an individual, including his physical, temperamental and mental states.

In Ayurveda, food is specific to a season. India has six different seasons namely *vasanta ritu* (spring), *grishma ritu* (summer), *varsha ritu* (monsoon), *sharad ritu* (autumn), *hemanta ritu* (fall winter) and *shishira ritu* (winter). Studying and knowing about seasons is important to prepare efficient diet plans for an individual and hence in this review, an effort is made to analyze the relation between food and health, and the impact of seasons on it, for achieving complete wellness.

Ayurvedic treatment of a disease consists of salubrious use of drugs, food, diets, and certain practices. Medicinal preparations are invariably complex mixtures, based mostly on plant products. Around 1,250 plants are cured and used in various Ayurvedic preparations. According to Ayurveda all objects in the universe including human body are composed of five basic elements (*Panchamahabhutas*) namely, earth, water, fire, air and vacuum.

There is a balanced diet condensation of these elements in different proportions to suit the needs and requirements of different structures and functions of the body matrix and its parts. The growth and development of the body matrix depends on its nutrition, i.e. on food. The food, in turn, is composed of the above five elements, which replenish or nourish the like elements of the body after the action of bio-fire (*Agni*). The tissues of the body are the structural entities whereas, humours are physiological entities, derived from different combinations and permutations of *Panchamahabhutas*. Treatment of the disease involves avoiding causative factors responsible for disequilibrium of the body matrix, restoring the balance and strengthening the body mechanisms to prevent or minimize future occurrence of the disease. Normally treatment measures involve use of medicines, specific diet and prescribed activity routine.



Ayurveda clearly puts forth that all good health starts with digestion; with the proper metabolism of food. Accordingly, one of the most important things we can do for our health every day of the year is to eat wisely. Food is considered just as powerful as medicine. In fact, there is a *sloka* (writings of the ancient texts of ayurveda) that says "food is medicine when consumed properly." If we eat food uniquely suited to our physiology, and follow a *sattvic* (life supporting) routine that enhances digestion, our bodies will reap the benefits and we will find that our days will be happier, healthier and filled with real vitality – at any age.

Our busy lifestyles can lead us to eat on the go, eat while working, skip meals or eat "junk" food. However, Ayurveda holds the belief that we can add life to our years and years to our lives. This healthy Ayurvedic routine includes: eating three regular meals at about the same time each day; making lunch the main meal of the day and cooking and eating fresh food. Leftovers are considered less Satvic than fresh food, and whenever there is an option, it is best avoided.

Ayurvedic foods can give a longer life with the intelligence of nature. According to Ayurveda, our human physiology is a reflection of the laws of the universe, and the more in tune our lives are with nature, the healthier we are likely to be. Living a balanced lifestyle, getting adequate rest, staying hydrated so our bodies can rid themselves of impurities, getting some form of reasonable exercise and eating pure foods are all in our control and are something we can do to help stay healthy. Balanced health goes beyond physical wellness to well-being in mind, spirit, emotions and senses as well. The Ayurveda food we eat can nourish our mind, body and emotions, not just our body.

Ayurvedic medicinal food plays a significant role globally as well, and has been rapidly contributing to our economic development and foreign exchange. Decades ago, the monsoon month of '*Karkidakam*' was marked by heavy rain, a time when people prayed to the Gods to prevent nature's fury. Times have changed and so have the prayers, but the age-old tradition of savouring the *Karkidaka Kanji*,<sup>1</sup> a spicy mix of rice and medicinal herbs, remains intact among a few families even today. While it may now have become difficult to find the herbs in the courtyards of houses, branded '*Karkidaka kanji*' ready mix is available in the market. This medical porridge is one of the special therapeutic Ayurvedic Diets that is prescribed during the *Karikidam* season to overcome many disease caused during the monsoon and to improve the immunity of one's body. The gruel not only cleans the body from inside but also aid in good digestion. It is also very effective for improving immunity if taken in a proper manner.

Lifestyle diseases are defined as diseases linked with the way people live their life. This is commonly caused due to unhealthy eating and a lack of physical activity, along with alcohol, drug or smoking abuse. These diseases appear to be increasing in frequency as countries become more industrialized and people live longer. Diet and lifestyle are major factors thought to influence susceptibility to many diseases. In many Western countries, people began to consume more meat, dairy products, vegetable oils, tobacco, sugary foods, Coca-Cola, and alcoholic beverages during the latter half of the 20th century. People also developed sedentary lifestyles and greater rates of obesity. In 2014, 11.2 million Australians were overweight or obese. Rates of colorectal cancer, breast cancer, prostate cancer, endometrial cancer and lung cancer started increasing after this dietary change. People in developing

countries, whose diets still depend largely on low-sugar starchy foods with little meat or fat have lower rates of these cancers.

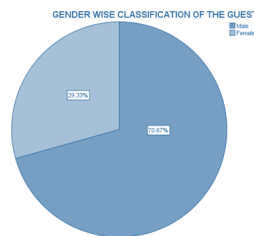
Diseases and death are caused by toxic environments, including our food supply. Diseases like cancer is a symptom of a toxic environment. It is the body's response to toxicity. When our bodies are thrown out of balance due to long-term exposure to toxins and from living on an unhealthy food and lifestyle, it results in such deadly diseases. According to Ayurveda, cancer is one of the most extreme expressions of imbalance in the body. The social and long-term cure for such conditions is the cleaning up of our environment and food habits. Traditional Ayurvedic medicine and a balanced diet can keep the human body healthy and can cure diseases.

## DATA ANALYSIS

**Table 1: Gender Wise Classification**

Gender Wise		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	53	70.7	70.7	70.7
	Female	22	29.3	29.3	100.0
	Total	75	100.0	100.0	

Source: Primary Data



**Figure 1: Gender Wise Classification**

## Interpretation

From the above table it indicate that majority of the guest are 70.67% and only 29.33% are female guest who purchase ayurveda food.

**Table 2: Age Wise Classification of the Guest**

Age of the guest		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 25 years	3	4.0	4.0	4.0
	26-35 years	4	5.3	5.3	9.3
	36-40 Years	43	57.3	57.3	66.7
	More than 40 Years	25	33.3	33.3	100.0
	Total	75	100.0	100.0	

Source: Primary Data

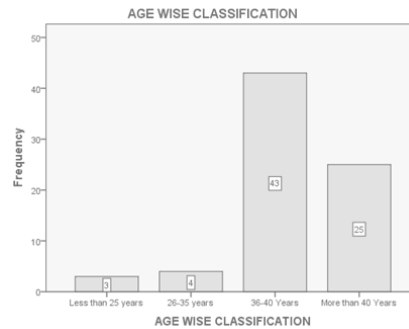


Figure 2: Age Wise Classification of the Guest

**Interpretation**

From the above table shows that most of the guest who purchase ayurveda food in the category of 36-40 years ,out of the guest 25 are in the group of More than 40 ,4 are in the age group of 26-35 and only three belong to thde age group of less than 25 years old.

**Table 3: Cross Tabulation of the Occupation and the Income Level of the Guest****Occupation of the Guest \* Income Level of the Guest Cross Tabulation**

Count

Variables		Income Level of the Guest				Total
		Less than 10,000	10,000-15,000	15,000-20,000	More than 20,000	
Occupation of the Guest	Public Employees	16	0	2	0	18
	Private Employees	1	10	0	0	11
	Own Business	0	1	32	9	42
	Others	0	0	0	4	4
Total		17	11	34	13	75

Source: Priamry Data

**Table 4: Cross Tabulation Between the Amount Spend and the Food the Guest Prefer****Amount Spend by the Guest \* Food Preferred by the Guest Cross Tabulation**

Count

Variables		Food Preferred by the Guest		Total
		Pure Vegetarian	Pure Non -vegetarian	
Amount Spend by the Guest	Less than 500	31	5	36
	501-1,000	3	22	25
	1,001-2000	3	6	9
	More than 2,000	0	5	5
Total		37	38	75

Source: Primary Data

## Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.211 <sup>a</sup>	3	.000
Likelihood Ratio	45.143	3	.000
Linear-by-Linear Association	24.833	1	.000
N of Valid Cases	75		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.47.

## CONCLUSION

Ayurvedic theories and practices on health, food, and nutrition are quite different from those of biomedicine and modern nutrition. Systematic exploration can provide new insights to health and nutritional sciences to provide contemporary solutions in healthcare, for instance, how one can modulate the diet and lifestyle to suit one's prakriti, age, and season. Rasayana in particular is an area worth exploring for new ways of rejuvenation and anti-aging. Healthcare costs are a major concern to the government exchequers of both developing and developed countries. Knowledge as to how to manage health at an individual level can help bring down sky rocketing healthcare costs through providing wellness. The Ayurvedic principles and practices can potentially become relevant for designing an integrated health care strategy. Concepts in Ayurveda, such as the rasa of a material being an indicator of its action on the body, are new to biomedicine and the modern nutritional sciences and can provide practical ways to create balanced diets.

Two main observations emerged from an analysis of published literature particularly from India on the bridging efforts. There have been more articles hypothesizing correlation of certain Ayurvedic concepts with biomedical entities than actual scientific studies to illustrate the correlation. Second, wherever there have been experimentation and scientific studies to prove the hypothesis, an Ayurvedic concept or an entity has been correlated with an already existing/evolving biomedical or science paradigm rather than introducing a new paradigm from Ayurveda. This approach appears somewhat "forced," may be because the bridging effort is being attempted by mainstream scientists and/or just because of lack of know-how to study the "holism" of Ayurveda. To state that this approach can only help look at parts of Ayurveda and not the whole is commonplace. However, there is no denying that this is most needed and that this active interest taken by biomedical scientists in Ayurveda will create new knowledge. In recent years, there have been concerted research efforts to understand Ayurvedic principles, such as prakriti, dosa, and agni using modern scientific tools. These trans-disciplinary bridging efforts have no doubt helped correlate certain reduced aspects of Ayurveda with existing biomedical entities. However, they have not been able to capture the holism of Ayurveda. It is not clear whether the holistic knowledge of Ayurveda was assembled by putting together pieces of data and information gained over a period of time (like is done in Systems Biology approach) or whether there was an altogether different method adopted to perceive holism. Therefore, interpreting or validating the complex holistic principles, such as the five fundamental elements and the three bio-effector concepts (three humors or tridosas), of Ayurveda can be quite a challenge using the same methods and tools that look at cells and atoms. This may end up like the five blind men trying to interpret an elephant by feeling different parts of the elephant. However, the post-modern scientific

perspectives and methodologies in systems biology, pharmaco- and nutri-genomics, personalized medicine, chaos theory, ecological human being, etc., are today better equipped to engage in a dialog with Ayurveda than conventional biomedicine. An allergy is a hypersensitive reaction of the body when it comes into contact with a substance that is in fact harmless. An allergy is certain causes, occurs suddenly and is predictable. The hypersensitive response comes from the natural immune system and ranges from a slightly uncomfortable feeling to a fatal anaphylaxis. Recreating Ayurvedic methodologies may hold the clue to understand Ayurveda holistically. This is of course not easy and would require a deeper engagement with Ayurveda.

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# **SECTION III HISTORY AND EVOLUTION OF INDIAN CUISINE**

- Chapter 19     Indian Cuisine: A Manifestation of Foreign Influences**
- Chapter 20     An Exploratory Study on the Influence of Foreign Invaders on Indian Cuisine**
- Chapter 21     An Article on Evolution of Cuisine, Eating Habits and Foreign Influences**





# 19

## CHAPTER

### Indian Cuisine: A Manifestation of Foreign Influences

Jaya Sharma\*

#### ABSTRACT

*Indian cuisine is ancient, steeped in tradition and an amalgam of different ethnic influences. It is multidimensional, diverse and a colourful cuisine with a repertoire of recipes that is virtually unmatched globally. Indian cuisine is a reflection of the heritage of its people and the influences of historical and cultural developments.*

*India has welcomed a multitude of settlers with a variety of belief systems. For more than two millennia, India has witnessed various foreign invasions, from Greeks to Arabs and Turks to Mughals, Portuguese, French and British. This history, tourism, trade, fiscal policies, globalization, and the ever increasing population with young demographics have all led to major foreign exposure. All these factors have contributed to the structure and character of the Indian cuisine.*

*The objective of the paper is to study the history and evolution of Indian cuisine from Harappa and Mohenjodaro to its contemporary trends in reference to the foreign influences. The paper illustrates the specific foreign influence on ingredients, cooking methods, equipment, eating habits and special dishes.*

*Indian food has evolved over the years based on religion, geography, history, agriculture, and climate and has a strong connection with culture. The foreign flavours have become the integral warp and weft of the Indian food fabric. The foreign influences have been imbibed and are now an inseparable element of the contemporary Indian cuisine. These foreign influences along with variety of ingredients and health benefits have contributed immensely so much that Indian Cuisine happens to be extremely popular internationally as well.*

*According to United Nation's World Tourism Organization press release, International Tourist Arrivals grew by remarkable 7% in 2017 and arrivals in South Asia grew at 10%. This strong momentum is expected to continue in 2018 though at a more sustainable pace. The growing International travel will make Tourism the key driver in economic development. These statistics and the richness and depth of the Indian Cuisine will thus enable it to bask in its glory in future. Indian cuisine in its myriad of characters will be ubiquitous on the global menu.*

**Keywords:** Foreign Invasions, Culture, History, Globalization, UNWTO, Tourism.

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## INTRODUCTION

Indian cuisine is synonymous with simplicity, diversity and richness in taste and character. It is a reflection of the people and their heritage. The Indian cuisine is popular across the globe today. As the objective of this paper is to study the history & evolution of the Indian cuisine with reference to the foreign influence, this paper follows the historical timeline of the Indian sub - continent. The journey that the Indian cuisine has traversed from the origin to its present day contemporary look has been deeply studied and analyzed. Each foreign country and its impact has been individually covered. It is interesting to see how the post-independence era of India has adopted the nuances of the global food culture which has given birth to a new and fresh Indian cuisine. Much of the Indian food & Desi cooking has gradually evolved being influenced by various cultures over many countries.

## THE STORY FROM MOHENJO-DARO & HARAPPA

Archaeologists can tell what Indus Valley people ate by examining the teeth and bones of skeletons they discover. They also examine rubbish pits for animal bones, seafood shells, fruit seeds and other food remains for clues to their diet.

Indus people kept cattle, pigs, sheep and goats for food. Cows provided milk and meat. Farmers grew fruit such as dates, grapes and melons, and field crops such as wheat and peas. Indus Valley people ate a healthy diet. Most people probably ate more fruit and vegetables than meat.

The Harappans grew lentils and other pulses (peas, chickpeas, green gram, and black gram). Their main staples were wheat and barley, which were presumably made into bread and perhaps also cooked with water as a gruel or porridge. In some places, particularly Gujarat, they also cultivated some native millets; possibly broomcorn millet, which may have been introduced from southern Central Asia; and by 2000 BC, if not before, African millets.

Meat came mainly from cattle, but the Harappans also kept chickens, buffaloes and some sheep and goats, and hunted a wide range of wildfowl and wild animals such as deer, antelopes and wild boar. They also ate fish and shellfish from the rivers, lakes and the sea; as well as being eaten fresh, many fish were dried or salted – many bones from marine fish such as jack and catfish were found at Harappa, far inland.

## HISTORY OF FOREIGN INVASIONS

For more than two millennia, India has suffered one invasion after another, leaving a holocaust of millions of lives and a civilization and culture left in near ruins. Through it all, India is the only one of the great ancient civilizations that has survived today. Here is the list of major foreign influences on the Indian Cuisine

## TIMELINE OF FOREIGN IMPACT

- Alexander and the Greeks  
336 B.C.E. - 323 B.C.E.
- The Arabs, Turks & Bahamanis Invasions  
636 C.E.- 1600 C.E

- The Chinese Connection  
627 C.E – To date
- The Mughals  
1526 C.E. - 1857 C.E.
- The Portuguese  
1498 C.E.-1961 C.E.
- The French  
1668 C.E. -1954 C.E.
- The British  
1600 C.E.- 1947 C.E.
- Post Independence

### **THE GREEK IMPACT**

With the conquest of India with the Alexander the great in 350 BC, the Greeks brought their profound herbs and spices where Greek cuisine is a blend of cuisines of the Roman Empire and Turkey. Indo Greek relationship strengthened during the reign of Chandragupta Maurya's son Bindusara when he imported Greek wine / raisins.

As trade flourished during the Greeks between India, Rome and other Mediterranean countries, it brought the usage of saffron and vegetables like eggplant and zucchini.

Greek influence in Indian Food led to the introduction of extremely essential herbs and spices to Indian cooking in the recent era. Saffron was previously grown wild in Persia and Asia Minor and at present it is cultivated in Northern India.

Moreover, Greek cuisine is influenced by several other foreign cooking. Most of the Greek foods have names with foreign origins. Alternatively Greece is also the country of organically producing cheeses, oils, fruits, nuts, grains, legumes, and vegetables. These are the foods of the traditional Greek regimen adding variety and nutrition. Greece has gifted the Indian subcontinent with an assortment of ingredients for cooking such as olive and lemon. Greek also introduces several spices, garlic and other herbs such as oregano, basil, mint, and thyme.

Other spices that are regarded contribution of the Greek influence in Indian Food include fenugreek seeds, and fennel. These are the two prominent spices that add flavor to the Indian culinary. Greece has also brought up utilizing classic elements that is the basic essence of the Greek cuisine. Indian can thus experiment of preparing different dishes adding Greek flavour. Thus Indian Food becomes simple and elegant, with flavours subtle to robust, textures smooth to crunchy, fresh and timeless, nutritious as well as healthy.

### **THE PARSI INFLUENCE**

The Parsis arrived in India in the seventeenth century after fleeing religious persecution in Iran and settled on the west coast in Gujarat and Mumbai.

Predominantly their food is sweet, sour and spicy. Non-veg fare forms a big part of the cuisine. Egg, mutton, fish and potatoes became more popular.

Prior to the introduction of Chinese and subsequently Italian cuisines, restaurants in Mumbai were mainly Udipi cafés serving *dosas* and *idlis*, and Iranian cafés were famous for affordable non-vegetarian fare. Mawa cake, bun maska and Irani chai are some of the items that are some of the famed products of these cafés. Just as you can't stay in Delhi without sampling *paratha* or *chholebhature*, one can't claim to have experienced Mumbai without sampling *salliboti*, *berry pulao* and *kheemapao*. Traditional Parsi cuisine combines the spiciness of saffron and cinnamon, the sweetness of *jaggery*, and the tanginess of barberry. Most preparations are also topped with dry fruits and nuts.

Iranian cuisine has a heavy Middle Eastern influence due to its location, and it's especially influenced by Turkish, Kurdish and Azerbaijani cuisine. Fresh green herbs are frequently used along with locally found fruits such as plums, pomegranates, quince, prunes, apricots, and raisins. The basic dishes characteristic of a Persian meal are combinations of rice with meat, such as lamb, chicken, or fish. Vegetables like onions or fresh herbs like parsley are used along with nuts. Some special dishes are flavored by adding spices like saffron and cinnamon in delicate amounts.

The most notable part about the Parsi cuisine in India is that it has evolved and separated from Persian cuisine to carve a distinct niche for itself. Just like the Parsi community, the cuisine has adopted local ingredients and local spices to invent new dishes. Parsi cuisine also has Caucasian influences just like its parent, or Persian, cuisine. Modern-day Parsi cuisine was especially shaped during the British rule of India.

## THE CHINESE CONNECTION

India's first exposure to a Chinese traveler was with Chinese Buddhist monk Hsuan Tsang (var. Hiuen Tsiang) who visited India through the Silk Route between AD 627-643. He was a great traveler, scholar and translator. Till date his work on India is very significant. While the Chinese have been visiting India for millennia in search of Buddhist teachings, Yang Tai Chow was the first recorded Chinese to migrate to India for better material prospects. In 1778, he put down roots in Kolkata. Known at the time as Calcutta, it was the then-capital of British India and the most easily accessible metropolitan area from China by land.

By the early part of the 20th century, a Chinatown had developed in Kolkata and it thrived and buzzed with enterprise. Chinese restaurateurs found their fame and glory in India.

As all immigrant communities tend to do, the Chinese assimilated Indian sensibilities and beliefs. They even acknowledged one of our goddesses, Kali, as their own, and offered noodles, chop suey, rice and vegetable dishes in rituals as a sign of unity.

And so it was with food that the Sino-Indian cultural fusion began. Although the Chinese cooking methods are similar but it's the ingredients which give its uniqueness. Chinese cuisine in India is believed to have been developed by a small Kolkata Chinese community. They are living there for over a century and are gradually widespread in the cities like New Delhi and Mumbai. Chinese influence on Indian food also popularized non-vegetarian dishes in India. Non veg dishes like fish, chicken, mutton and prawns were largely popularized. Another remarkable Chinese influence on Indian food is the usage of Mono sodium glutamate to ensure the typical Chinese flavour in Indian food.

Chinese influence on Indian food altered the structure of Indian cuisine also. Plain rice and pulses were heavily replaced by chow- mien and fried rice. Indian Chinese cuisine includes

Manchurian with any of the chicken, prawn, fish, mutton, or vegetable. It is also available with paneer, Sweet and sour chicken, Gobi Manchurian, combines with scallion, soy sauce, ginger, hot pepper, with cauliflower, Momos, etc. Its desserts include ice cream on honey-fried noodles and date pancakes. The development of soup culture in Indian food system is also an important contribution of the Chinese influence on Indian food.

### THE FRENCH IMPACT

The French came to India in 1769 and by 1851 they were well settled in Pondicherry. The French had a vast impact on the Restaurant & Hotel industry. The adoption of French classical menu and the service of course wise meals is a testament to this. The presence of accompaniments to each course and great emphasis on the presentation of the dishes with garnishes are the typical characteristics of the French cuisine which are now an integral part of the Indian cuisine.

The extravagant table setups, from cutlery to flatware are all a gift to the Indian hospitality industry. The sitting banquet parties, room service and buffet services in India are also an influence of the French culture. The presence of meat as a part of the main course can also be routed from the French times.

French wines have a global magnanimous presence and appreciated by one and all. Traditionally India is not a wine drinking country. The exposures to the new culture, growth in foreign tourists, changing demography are the main factors to higher consumption of wine in India. Wine is becoming a part of the urban Indian lifestyle. According to the recent statistics of alcoholic drinks import data, wine import business in India recorded USD 6500141 during April – June 2017. French wines like Moët & Chandon, Sauvignon Blanc, Dom Perignon & Carlo Rossi constitute the five most imported wine brands in India. French wines account for almost one third of the total imports in value terms.

So whether it is the classic 17 course French classical menu or the extravagant banquets and buffet arrangement or Chablis & Champagne, French Food, wine and culture all have been deeply imbibed by the Indian culture.

### THE PORTUGUESE IMPACT

Portuguese spread to various parts of India, mostly along the west coast but also in the north east in Bengal.

The dish Vindaloo is derived from the Portuguese dish “*Carne de vinhad'alhos*”, which is a dish of meat, usually pork with wine and garlic. A popular Goan pork delicacy *Sorpotel* or Greek *Sarapatel* originally comes from the Alentejo region of Portugal. The word *Sarapatel* usually means confusion referring to the mash of pork heart, liver and blood.

Portuguese influence in Bengal dates back to the late 16<sup>th</sup> century. They introduced the art of cheese making and the technique survived over years. The Bandel cheese was introduced by the Portuguese. The Portuguese technique learnt by Mogh(Burmese) cooks was mastered and is displayed today in Calcutta's prolific puffs and pastries and perhaps also in the white flour for *Luchis*. The Portuguese left a legacy of sweets as well as savoury dishes. *Kulkuls* or *kidyo* are a type of sweet popular in the Konkan region.

Portuguese introduced certain foods to the Indian kitchen for instance tomatoes, potatoes, chillies, breadfruit, okra, guava, papaya, maize and many more. *Shukto* a regional Bengali dish has its origins in Portuguese cuisine. *Pav* the popular Indian bread is actually a European import and is actually the Portuguese word for Pao.

### THE MUGHAL IMPACT

India has witnessed several invasions from Arab and Central Asia in its early days. These invasions from the western Asia brought the Mughlai cuisine in the 12<sup>th</sup> century. The most emphatic impact was probably of the Mughals who reigned the Indian subcontinent for almost 300 years. With Babur's invasion in 1526 flew in a plethora of dishes, ingredients, style and cooking methods. His autobiography called *Baburnama* mentions food items like kebabs made from sheep. The Mughals brought their rich, aromatic food culture to India.

The Mughal cuisine that evolved during the Mughal Empire is a combination of the cooking style and recipes of central Asia & north India. The Mughals not only changed the façade of Indian history but also changed the country's culinary journey map by merging Middle Eastern cuisine with Indian spices and ingredients. The typical contributions of the Mughals on the Indian cuisine can be listed as below:

- Usage of milk, cream and other dairy products
- Use of nuts and dry fruits in various dishes
- The extensive use of spices
- Non vegetarian food such as *kebabs*, *tikkas* and grilled meats.
- Fruits like apricot, peaches, plums and melons in main course and desserts
- A new tradition of rice based dishes, such as biryanis and pilafs

Apart from the introduction of new dishes the Mughals introduced the novel idea of using aromatic spices in cooking. Even the names of the dishes got a unique Muslim influence. The Persian language was adopted by the Mughals as their official language thus many Mughlai Indian dishes bear names in this language.

As the religion of the Mughals did not allow them to consume Pork and the Hindus prohibited the consumption of Beef, these two meats were not a part of the Mughlai cuisine. The primary non vegetarian dishes would include meat of goat, fowl, sheep and venison. Unlike Aryans who preached Vegetarianism, Meats were the preferred choice of the Mughals. Meats started to be included in the main meals.

The Mughal influence on Indian food reflects the local cooking styles in it. The fresh and dried fruits, cashews, pistachios and almonds in the preparation of meat dishes as well as dairy products like curd and ghee enrich the Indian cuisine.

The Indo-gangetic plains of the north India produce extensive wheat and hence the flatbreads are very popular, especially *Naan*, *Kulchas* and various styles of *paranthas*.

### TANDOOR CLAY OVEN COOKING

Tandoor cooking began with nomadic tribes in the steppes of Central Asia and was brought to India by Mughals. Archaeologists have found Tandoor remains dating from 2600 BC. A Tandoor is a clay oven which has burning charcoal at the bottom to produce high heat and facilitate grilling and cooking.

The popular dishes are *Biryanis*, *Mughlai Parantha*, *Pasanda*, *Murgh Musallam*. *Kebabs*, *malai Kofta*, *Rezala*, *Sher Khorma*, *Shahi Tukra*, *Qeema Matar*, *Navratan Korma*, *Shahi Roganjosh*, *Boti kebab* and *Murgh champ* etc..

The Mughals introduced an array of desserts like *barfis*, *halwa*, *jalebi*, *kheerkulfi* and *Falooda*. It was Mughals who introduced eating betel leaves to refresh the palate and to aid digestion.

Mughals enjoyed dining and their large sumptuous lavish buffets influenced Indian traditions to a large extent. On special occasions it was common to have hundreds of dishes. The variety of food on the table described one's royalty and richness. This feature is common to the Indian society today as well where a vast and lavish display of food is synonymous to one's prosperity and grandeur.

### THE BRITISH IMPACT

The British Colonialists of the Raj arrived in 1599 initially for a share of the wealth from the trade in spice. By 1850 they established the East India Company in Kolkata. It was the Anglo-Indian cuisine that developed during the British Raj in India. Indian khansamas took aspects of British cuisine and amalgamated them with Indian spices. In this period flexibility and diversity was introduced to the cuisine of India.

The Anglo Indian Beef stew, Mulligatawny soup, Country captain Chicken, Stuffed Roast chicken Indian style, *chutneys*, tempering and spices all were fused with primarily meat to make it Indian. A wide assortment of English Pork chops which are marinated in spices & chilies, soups and salads became the part of the Indian menu. Salads were often mixed with some spices or yoghurt. The consumption of curries was initiated. English snacks including sponge cake, lemon curd tartlets & cucumber sandwiches made entry on the menu.

The eating style also experienced an additional influence. The dining table replaced the kitchen floor & porcelain replaced the banana leaf. Bread, toast, fruits, boiled eggs became an integral part of the breakfast menu. British introduced the concept of use of spices in Indian cookery. A wide assortment of spices such as ginger, nutmeg, cinnamon & clove took a prominent place in the household. The iconic Curry, a signifier of the Indian food was invented in British colonial era.

The English not only brought food but also beverages. Indian pale Ales, Gin & Tonic also owe their existence to the British Colonialism. British convinced an influence of the Christian religion in the Indian food.

### POST INDEPENDENCE PHASE

#### GLOBALISATION

Globalization is a process of interaction and integration among the people, companies and governments of different nations, a process driven by international trade, aided by information technology. It is by this process that the world is becoming increasingly interconnected as a result of massive trade and cultural exchange.

Globalization has been taking place for hundreds of years but speeded up in 1990s in India. The govt. of India made changes in the economic policy in 1991 as a result of this globalization took place at a major scale.

Globalization brought in huge amount of direct investment which boosted the economy significantly. There was a socio cultural impact on Indian society. Access to foreign education became easier and popular. Pizzas, burgers, Chinese and other fast food made way to the country. This diversity in culture and exposure led to the adaptation of the Indian cuisines and increase in number of global food chain restaurants.

According to a study done by analysts at Techno Park, a management consultant from Gurgaon, the Indian market for chain restaurants was an estimated \$2.5 billion in 2013 & is expected to grow to \$ 8 billion in 2020, as quick service or fast food restaurant.

India's increased exposure to international cuisine through the media and travel makes the country a desirable destination for internal food chains to expand globally.

Mc Donald's launched in 1996 in India and has more than 300 restaurants in the country. The presence of other joints of dominos, pizza hut, KFC, CCD, Subway, Starbucks, Burger king, Dunkin donuts and Barista clearly indicate the impact on Indian palate which has permeated to the Indian cuisine.

### IMPACT OF WORLD TRADE

India's top trading countries for exports include US, UAE, Hong Kong, China, UK, while the top 5 countries from which India imports include China, USA, UAE, Saudi Arabia & Switzerland.

The impact of this international trade would result in rapid economic growth, increasing the per capita income & eventually the spending capacity or the disposable income. This would further lead to the eating out.

According to the census 2001, 41% of the population account for 25 to 54 years age and about 18% of the population is 15 to 24 years. This accounts for the major hold of youth.

India's millennial or Generation Y are people who are tech savvy, constantly exposed to the global trends & life styles, are well read, have extensively travelled and have a high spending power.

A study by NRAI reports the QSR & casual dining account for 74%. Millennial are adventurous and do not shy out on experimenting with different cuisines.

Additionally, addiction to food channels on TV & food boards on social media is motivating them for a unique exotic gastronomical experience.

### GLOBAL TOURISM TRENDS

Over the decades, tourism has experienced continued growth and deepening diversification to become one of the fastest growing economic sectors in the world. Modern tourism is closely linked to development and encompasses a growing number of new destinations. These dynamics have turned tourism into a key driver for socio- economic progress.

Today, the business volume of tourism equals or even surpasses that of oil exports, food products or automobiles. Tourism has become one of the major players in international commerce, and represents at the same time one of the main income sources for many developing countries. This growth goes hand in hand with an increasing diversification and competition among destinations.



This global spread of tourism in industrialized and developed states has produced economic and employment benefits in many related sectors - from construction to agriculture or telecommunications.

Based on data reported by destinations around the world, it is estimated that international tourist arrivals (overnight visitors) worldwide increased 7% in 2017. This is well above the sustained and consistent trend of 4% or higher growth since 2010 and represents the strongest results in seven years. The current strong momentum is expected to continue in 2018, though at a more sustainable pace. Based on current trends, UNWTO projects international tourist arrivals worldwide to grow at a rate of 4%-5% in 2018. This is somewhat above the 3.8% average increase projected for the period 2010-2020 by UNWTO in its *Tourism Towards 2030* long-term forecast. Europe and the Americas are both expected to grow by 3.5%-4.5%, Asia and the Pacific by 5%-6%, Africa by 5%-7% and the Middle East by 4%-6%.

## CONCLUSION

The influence of many foreign settlers gave rise to new cooking styles, methods and ingredients in Indian cuisine which have permeated through and became an inseparable part of the Indian cuisine itself. Today the share of Indian Restaurants is at a whopping 48% in UK itself. This global popularity is due to the richness of ingredients, simplicity and diversity of food. These foreign influences have contoured the structure of Indian food while offering it a distinct dimension.

Much of Indian food and Desi cooking has gradually evolved being influenced by various cultures over many countries. Indian cuisine comprises of a medley of dishes that are as rich as the culture itself. Thus we see that the contemporary Indian cuisine which is so popular today has actually taken centuries to take its present shape. From the ingredients to Cooking methods & styles all have helped it to acquire its contemporary place.

With modern trends of globalization, economic liberation, increasing population, increasing world trade, Tourism will continue to boom and as the phenomenon of Tourism accelerates, Indian food will continue to be impacted as it will travel to every nook and corner of the world.

Indian cuisine has undergone metamorphosis and evolved from its origin of Indus valley civilization to its present day state. An array of countries have impacted the Indian food culture. It is interesting to see that although India has assimilated the various ingredients, cooking styles and eating habits from across the map yet still it has retained its originality and character. The foreign impact has adorned the cuisine and these jewels of perfection have added immense value to this perfect cuisine.

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# 20

## CHAPTER

### An Exploratory Study on the Influence of Foreign Invaders on Indian Cuisine

Manoj Belwal\*, S. Kaliappan\*\* & Vasanthan Sigamany\*\*\*

#### ABSTRACT

*Indian cuisine is as easy to explain as quantum mechanics. Over 5,000 years of history, India has welcomed a multitude of settlers, each having their own ingredients, spices, utensils, techniques, and recipes. Indian cuisine is ancient, rich, and diverse in its culinary customs, ethnic influences and flavours. Foreign invasions, trade relations and colonialism have aided in bringing new elements to Indian cuisine. Indian food is born from the concept of Ayurveda. Food was medicine and medicine was food. India is a melting pot of cuisine. The integration of foreign elements to the traditional Indian cuisine over various centuries has made it diverse.*

*With the advent of Mughals to India consumption of beef, lamb, chicken and fish was preferred to the traditional food. The food was rich with the usage of nuts, dairy products and sweeteners used in their preparation's like kormas, kaliya, halwa, nehari etc. the cuisine involved cooking methods such as Zamin Doz and Dum Pukth along with introduction of Royal kitchen hierarchy. Britshers brought in a culture of tea, concept of bakery and confectionery, railway catering. Chinese contributed with ingredients like MSG, Pork, Mushroom, Sweet corn and cooking methods such as stir frying and Dim Sum. Portuguese introduced vegetables and fruits like chilies, cashew nuts, tomato, pineapple, potato and pickling of seafood. French colonization influenced the food in Puducherry by introducing dishes like Ratatouille, Coq Au Vin, Crêpes, Crème Brûlée.*

*An exploratory study was made about the influence of foreign invaders on food and its impact on the food of a particular region.*

**Keywords:** *Indian Cuisine, Foreign Influence, Mughlai Cuisine, Portuguese Influence, Indo-Chinese cuisine, Anglo Indian Cuisine.*

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## INTRODUCTION

Indian cuisine is as easy to explain as quantum mechanics. India has a history over 5,000 years, Indian food is born from the concept of Ayurveda. Food as a medicine and medicine as a food (Etkin & Ross, 1982). Culinary concept of Indian Cuisine is based on food which decides quality of our mind and health of our body. It is ancient, rich, diverse in its culinary customs, ethnic influences and flavours. The cuisine comprises of cereals and pulses, seasonal locally produced vegetables, spices, herbs, pickles, *chutneys*, meats like poultry and game, lamb and seafood. Foreign invasions, trade relations and colonialism have aided in bringing new elements to Indian cuisine. Cuisines of India was influenced by various invaders like Portuguese, Dutch, British, Mughals and French. They introduced distinctive ingredients, cooking methods, equipment and utensils which resulted in uniqueness of the cuisine. Foreign invaders had a direct impact on cooking techniques, eating habits and flavors. The Indian food by the foreign invasion were greatly influenced which changed the traditional food the people use to consume in their household. The ingredients brought by them slowly started to be incorporated in their regular diet which changed the food habits the local community had. The purpose of this study is to explore the various influences by the foreign invaders on Indian cuisine. For this purpose, an extensive literature review was carried out using books, online resources and journals.

## INFLUENCE OF MUGHALS ON INDIAN CUISINE

Western Asia Muslims brought their rich culture and heritage of Mughlai Cuisine to India amid twelfth century. They carried along with them sweet-smelling spices, nuts, *ittar* and unique cooking styles. Meats were the favored choice of Mughals and began to be incorporated into the primary suppers of Indian culture (Bali, 2009). They brought different Spice mixers (*masalchis*) and *Bawarchis* who had an immense knowledge about blending spices with high level of artfulness in cooking and presenting food. The royal cooks transformed the *Dastarkhwan* (royal dining area) with elegant dishes like *Biriyani*, *Pulao*, *kebabs*, *Pasanda*, *kaliya*, *korma*, *Sheermal*, *kulcha*, *Halwa*, *kheer*.

Introduction of kebabs in India began in royal houses from 1200AD which later spread to common households from the royals which was enjoyed during breakfast with naan as said by famous Moroccan traveler Ibn Battuta. when Alexander the great first met King Porus he was, surprised with the meat mish-mashes which were offered to him had a similarity with the *kebabs* of Greece. Yet the official passage for kebabs in India, Oudh Region (now Uttar Pradesh), is credited to Sadat Ali Khan. It is said that soldiers while travelling might find a prey which they will skewer using their swords and cook over live fire. The charred meat is added with seasoning and spices such as salt, cumin, chili, pepper which is sprinkled on the meat and consumed (Dash, 2014).

Mughals introduced cooking method such as *dum Pukht* and *Zamin Doz*. *Dum* cooking helps in extracting maximum flavor and aroma from the ingredients preserving nutrition. To begin with proficient illustrious kitchen hierarchy was presented by Mughals which comprises of *Rakabdar* - highest ranked cook who made food for the royal family. Next in the line of hierarchy were the *Bawarchis* - quantity cooks who made food in bulk. *Degsho* - used to lift heavy utensils and worked as dishwasher. At the bottom in royal kitchen hierarchy were *Mehri* - who used to lay the *Dastarkhwan*.

The utensils in Mughlai cuisine were made up of heavy metals with a tin plating inside called *kalai*. Some of the utensils used by them were *Lagan* (round and shallow copper utensil used for cooking biryani). *Deg* or *Degchi* (pear shaped utensil used for cooking rice and gravy dishes). *Mahi Tawa* (flat bottom utensil used for cooking kebabs). *Seeni* (big round plate used for covering lagan and handis perfectly suited for *Dum* Cooking). *Lohe ka Tandoor* (dome shaped oven made with Iron used for cooking breads and kebabs). Heavy bottomed utensils were preferred which provide uniform heat and prevented food from burning. Food of Mughals was always prepared on low heat as most of the dishes were made by slow cooking process.

The major spices added in different proportions were incorporated to prepare *kebabs* and *biryani* which included: Black and green cardamom, cinnamon, Bay leaves, peppercorns, cumin, nutmeg, mace and cloves. The spices were kept simple, easy to digest as most of the Nawabs had gastric issues. Fish, red meats, vegetables and cottage cheese were marinated along with curd and spices to eradicate unwanted flavours, mellowing the taste and texture of it. (Sabnani & Sati, 2015).

Culinary terms like *Ghee Durust Karna*, *Zamindoz*, *Dum Pukht*, *Galavat*, *Baghar*, *Gile Hikmat*, *Loab*, *Moin*, and *Ittar* were introduced by them. *Ghee durust karna* is a process of seasoning clarified butter by adding kewra essence and cardamom to remove unwanted and raw flavour from the ghee. *Zamin Doz* (food wrapped with soft clay cooked in a hole covered with burning charcoal). *Dum Pukth* (*Dum* means breath and *Pukht* means to cook). Fine art of marinades using tenderizing agents such as raw papaya and pineapple refers to the process of *galavat*. *Baghar* (tempering of a dish to be carried out either at the beginning or at final stage of cooking). *Gile Hikmat* (*Gil* means mud and *Hikmat* means process of *Hakims*). *Moin* is a technique of shortening dough which makes the end product crispy and flaky. *Loab* or *Roghan* refers to the final stage of cooking when the fat rises to the surface.

## INFLUENCE OF PORTUGUESE ON GOAN CUISINE

It was the year 1520 when the Portuguese came to Goa. They remained for a long time and gave Goa the extremely extraordinary quality refined from Portuguese inactivity, that unmistakable mentality of *Sossegado* that separates Goans from different Indians. These Iberians fell in love with the beauty of the land, its kin and its riches (Menezes, 2000). The cuisine of Goa is a unique blend of Portuguese and local sensibilities, principally those of the Saraswath Hindus. Liberal utilization of vinegar (by and large added to complete a cooked dish, since it turns bitter if included before), is basically European, yet utilization of different Indian ingredients, and of the less-spicy whole red chillies of Kashmir and Goa which grant an extraordinary red colour, bespeak the local influence (Achaya, 1994).

The Portuguese, on colonizing Goa, embarked on a campaign of religious conversion that soon led to a cultural, and eventually, culinary conversion. The repertoire of the Goan cook began to include spicy adaptations of relatively bland Portuguese fare, including *Chourico* – the spicy, plump cousin of the Iberian garlic sausage. Some well-loved Goan dishes like *Sarapatel* and *Cafreal*, travelled to Goa with the Portuguese from their other colonies in Brazil and Africa. As did the *chickoo*, cashew, tomato, sweet potato, pineapple, pumpkin, and new species of gourds and mangoes, breadfruit, durian, papaya (D'Souza, 2011).

The distinctive Goan sausage developed by monks is one of the most common forms of pork found. *Sorpotel* – pork Preparation made with meat, blood, liver, along with tamarind

pulp and vinegar. *Vindalho*- pork curry that used the dried rind of kokum fruit to provide sourness. *Feijoada* – beans and pork cooked together (Achaya, 1994).

The Portuguese rulers presented the act of eating meats – beef and pork – among converts. These were essentially consumed by high society Christians. In the mid nineteenth century, Cottineau de Klougen, amid his visit to Goa, noticed that the poor did not eat meat more than three or four times each year, a luxury which they couldn't manage the cost of regularly. Nonetheless, on festive events, for example, Christmas, Easter, weddings or feast of a village's patron saint vast numbers of Christians irrespective of their social and monetary status, would consume meat, especially pork. Pork became center of attraction for Goan Christian cuisine on festive occasions in Old Conquest domains. No meal would be finished without pork meat with no less than a sarapatel or a Vindalho and especially, among the upper strata, a roast pigling and balchão (Gracias, 2004).

Goa's poder culture is greatly cherished. The essential bread baked by the poders is the wheat bread or pao. Then there is the *bhakri* – a thick bran bread, that is cut open and hollowed out to stuff the chorizo in. There is kodok bread that is sweet. The *kankon*, or bangle bread is famous with children who like to play with the bread before they break it. Some bakers make a *nan khatai*-like buttery shortbread, called *bottam* biscuit or finger biscuit. The bol, or sweet soft bread is sweetened with coconut bits. This bread is not distributed by the poder, but can be bought only at the bakery (Fernandes, 2016).

The Portuguese introduced Goans to the culinary arts of bakery and confectionery. The Goan cook, keen to learn, created a whole new genre of *paos* and pastries, fruit wines and liqueurs of which cashew and coconut feni are the most prominent. *Bebinca* was invented by Bibiona, a nun at the Convento da Santa Monica in Old Goa. The first bebinca was made with seven layers to represent the seven hills of Lisbon and Old Goa. She offered it to a priest who found it too small. The layers were then increased. Bebinca is believed to have travelled the world. It is a layered pudding made with egg, flour and milk.

Seafood is the soul of Goan cuisine and staple elements of Goan diet. Caladine -yellow fish curry with turmeric and kingfish which is lightly salted and fried. Prawn Balchão - made of vinegar and lots of chopped onions that give it a sweet-sour flavor, and acts as a preservative. Rechado- Pan fried fish like mackerel and pomfret stuffed with Masala.

## INFLUENCE OF BRITISH ON INDIAN CUISINE

British started trading in India during 16<sup>th</sup> century. English relished food such as delicate bread with whole wheat flour, pigeon's meat, chicken, lamb and beef. The English serving in East India Company tried following Indian meal practices such as washing hand before and after the meal services. Indian cooks started making food which was best suited for them. They enjoyed dishes like pulao- long grain rice cooked with exotic spices. Stuffed fowl- boiled with clarified butter and stuffed with nuts. *Kebabs*- made using meats like lamb or beef and finished with dusted peppercorn powder. Pickles- soya sauce, mango, bamboo with pickling spices. (Sangar, 1999)

Spice trade between India and Europe introduced European cooking style to India. Anglo Indian Cuisine developed during British rule in India, where British wives had a detail interaction with Indian cooks. *Khansamas* (cooks) applied various culinary aspects from British cuisine such as cooking style and techniques which were later on tried with locally produced

ingredients. Which included concept of baking- cooking food with dry and hot air. Gilling-dry method of cooking, heat source is either from bottom or top. Roasting- Lean meats and red meat. Batter fried- seafood, finely chopped meats and vegetables coated with flour batter and deep fried.

Concept of rice with various kind of *curries* was first introduced by Britishers to India. *Murg Makhani* signature dish from Indian cuisine was first believed started by British. *Murg makhani* is considered as national dish of English people in London. Various cooking preparations during Britishers stay in India has been classified as *raj cuisine* which gave birth to Anglo Indian cuisine. Concept of soup to Indian cuisine started with the influence of British, classical soup like *shorbas* and *mulligatawny*. (Bali, 2009)

Concept of bakery and confectionery were unknown till British came to India, which gave birth to various baked dishes such as Biscuit, cookies, Christmas cake. Ritual of tea and concept of evening snacks were introduced by them. Cutlet- deep fried bread crumbed mixed vegetable patties were reintroduced to the streets of Kolkata during British raj in the form of chop. The two famous varieties of chop are aloo and beetroot. Aloo chop- patties of mashed potatoes with aromatic spices coated chick pea flour batter and deep fried. Beetroot chop- beetroot patties coated with flour batter and deep fried. *Lady Kanny*- a famous Bengali Sweet Preparation made with soft cheese (chenna) soaked in sugar syrup was first made to honour Lady Canning (wife of Lord Canning).

Catering services in Indian Railways were first started by British. British companies provided the catering services which included a variety of choices such as soup (clear and thick), batter fried fish, roast meat (lamb and beef), choices of curries with rice, salad made up of sliced tomatoes and beetroot and sweet dishes such as custard, puddings and soufflés (Doctor, 2015).

## INFLUENCE OF FRENCH ON INDIAN CUISINE

Among the Dutch, Danish, Portuguese and French, the French East India Company was the last to be formed and it then entered India in 1674 under the trading banner of the French East India Company. They later formed French colonies in Pondicherry, Mahe, Yaman and Karaikal in the 17<sup>th</sup> Century. These settlements also influenced the culture and cuisine of the respective regions which is clearly highlighted in their food and traditions even today (IASPOINT, 2018).

An interesting blend of Franco-Tamil culture can be seen in the city of Pondicherry and its food which is still home to the French colonies. Localities there still use traditional recipes that have been passed down to them by their ancestors who were subjected to the French culture during their invasion. (BusyBee, n.d.) There is a use of various spices in the food but subtlety is maintained. A clear influence of the French on the cuisine is seen even today. Flavors are subtle but robust. In most dishes, one spice is allowed to shine but they do not overwhelm. A general trait seen is the practice of using minimum oil to prepare means allowing better digestion. The stereotype of thick Indian gravies is broken here due to the influence wherein considerably thinner gravies are seen, like most French sauces. A few of them also have a creamy texture with the use of ingredients that have French origin or are highly used in their cuisine like wine, mustard and cream. The style of cooking, fairly adopted and accepted, is slow and elaborate. Pondicherry being on the coastal side has a lot of freshly



available seafood which is commonly and traditionally paired with Indian flavors. The influence is so much so that French baguettes may also be served at times with the respective curries. However, this is replaced by rice or Indian breads in other parts of the country. (DiscoveringWonders, 2016)

A classic French Bouillabaisse, is prepared traditionally even today in parts of Pondicherry. However it is called Pouillanbaisse or Puyabaise and is prepared with an Indian twist to comfort Indian palettes by addition of ghee, green chilies, bay leaf, cinnamon, carrots, beans, potatoes, turmeric and coconut milk. (BusyBee, n.d.) . A fish based variation of the same dish is also prepared called Meen Puyabaise. (Dutta, 2013)

A baked mutton preparation with garlic and onions called giogot daube also reflects the impact of the French on their food. The food may be called as French food with an Indian Twist as the combination of French flavors with available Indian ingredients is a highlight of their cuisine. For example, the Crevettes Grillees A Lai is a tomato, shallot and cream based dish with prawns flavored with lemon and parsley. The Vendakkai Thayir Pachadi is a yogurt based spicy Bhindi (lady finger/ okra) gravy which is creamy in nature. Many traditional bakeries are also found with Indianised French breads for example Saffron Bagguetes which are dipped in coconut milk based rose basundi. (DiscoveringWonders, 2016)

## INFLUENCE OF CHINESE ON INDIAN CUISINE

Chinese food is widespread in India. We know it as spicy, red, and greasy and are vegetarian or chicken/fish served with rice or noodles. This is the Indian Chinese cuisine that is neither authentic Chinese nor Indian. Historically, food culture in India has been influenced by Tibetan-Mongolian culture, which was in turn influenced by the ancient Chinese cuisines that were altered to cater to the ethnic food and gustatory preferences. However, universally popular Chinese foods are not directly associated with the Chinese-influenced Tibetan-Mongolian food. In the late 19th century, people with the Hakka ancestry who lived in Kolkata introduced Hakka dishes to India. Now, only the name “Hakka” continues as it is but the Hakka dishes have been changed to please the Indian palate. In 1920 the Huang family that migrated from the Moi Yen village in southern China started the first Chinese restaurant in Kolkata, Eau Chew which was started as an affordable tiffin place for the Chinese immigrants in Kolkata. By the early part of the 20th century, a Chinatown had developed in Kolkata and it thrived and bustled with business. Since then, many Chinese restaurants have been started in Indian cities such as Bombay and Madras. In the last decades of 20th century, Chinese food had become prevalent in the streets of Indian cities. (Sankar, 2017)

The indigenous China Town does not exist as it has moved to Tangra but the remains can still be found in Tiritta Bazaar which continues to sell Chinese breakfast items, sauces, equipment and spices (Seal, 2013).

They brought ingredients like soy, Mushroom, Sweetcorn, monosodium glutamate and introduced cooking methods such as stir frying and steaming. Chinese spiced up their bland sauces with chillies, pepper and hot sauces and created new dishes like sweet corn soup, hakka noodles, fried rice, chowmein, stir fries, Manchurian. Indo-Chinese food uses garam masala, turmeric, red chili powder to give it a distinct, robust flavor. A slurry of cornflour is used for thickening curries and stir fries. Tibetan migration to India provided second

boost to Chinese cuisine with introduction of dishes such as *momos*- steamed stuffed dumplings and *thukpa*-noodle and vegetable soup.

Popular Chinese food served in India is not exactly the authentic Chinese food. It is Indian food customized as per Indians' imagination and expectation of what Chinese food should be. Its colour, level of spiciness and pungency, and the way it is served create certain perceptions of Chinese food among Indians.

## CONCLUSION

The cuisine of India has been constantly evolving under the influence of the various visitors and invaders who have been coming to India. We have seen how the Indian cook and even the Indian household is able to adopt something from a foreign culture or even an ingredient from a foreign land and make it their own. For example, two of the three most commonly used ingredients in India, i.e. excluding Onion the other two staples being tomato and potato; no household in India or no restaurant in most of India cannot imagine functioning without these two ingredients which were never present in India before the Portuguese came to India. How Indians have created a version of a Chinese dish called chilly chicken or even a vegetable Manchurian, which cannot be found in any nook and corner of China (in the form that it is found in every nook and corner of India) except maybe in an Indian run restaurant in China. In addition, the impact of the foreign invaders on Indian cuisine is visible in every aspect of Indian culture from the rich Mughlai food at every celebration to the street vendors selling *kebabs* and *biryani*, to the pushcart *kulfi-wallahs* and the macaroons of South India. Though this exploratory research is just a beginning, we can see the various ways in which the foreign invaders have had an impact on Indian Cuisine.

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# 21

## CHAPTER

### **An Article on Evolution of Cuisine, Eating Habits and Foreign Influences**

**Mugdha Khare\***

#### **ABSTRACT**

*It is evident that a revolutionary new kind of food production is the need of the time to develop and balance our food resources without a further increase in population size or a massive decline in the global ecological resources and cultural institutions that have sustained us in the past. The fragmentation of our knowledge of agricultural system to other parts of human food chain urges to have a substantial knowledge of those processes that occur after a crop is harvested, when it is transformed into a food to be consumed in a social context.*

*From a biological evolutionary perspective, the continued use of tools and fire and the broad effects of the domestication of plants and animals has altered important aspects of the human food chain and has significantly affected the evolutionary dynamics that underlie the species.*

*Humans began the digestion process before it entered there systems by cutting meat which enhanced the biological evolution. The enormous success of agriculture and horticulture, provided the practicing societies with the ability to feed an excess number of their members and thus served as the basic economic subsistence engine for the broad emergence of human civilizations .*

*Over time, a trial-and-error process results in the nutritive success or failure of new cuisine strategies. Those strategies that satisfy basic nutritional needs become incorporated into food traditions and provide subtle and not so subtle advantages to the people who practice them.*

*On the face of it, the degree to which a culturally based diet satisfies basic nutritional needs is a matter related to the biology of humans as omnivores. Humans uniquely depend on cultural adaptations concerning diet to solve the nutrient problems that biology is incapable of solving on its own. Instead, humans have discovered and encoded in cultural traditions wisdom about diet that provides a culinary prescription for survival and good health.*

*India has a glorious tradition of healthy food. People in India have always respected food and this can be seen even today. In Indian tradition, food is placed next to God and that is the reason why food forms a main part of ceremonies and religious celebrations. Indian food is born from the concept of ayurveda.*

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*Modern Indian food carries the weight of maintaining traditional trends of the various Indian cuisines which include both the Hindu vegetarian diet and the Mughal delicacies. But in way it puts a twist of its own by involving foreign cuisines which have helped in developing and broadening the palate of people hereby assimilating various food cultures of the world under one roof.*

*We live in a digital age – a world in constant motion, constant change. So one may question, understandably so, what today's technology-toting, fast-food-frequenting individuals could learn by looking back on the lives of hunter-gatherers from the Paleolithic Era, a period that lasted about 2.5 million years and ended around 10,000 years ago with the development of agriculture. According to some scientists, modern humans could gain some valuable dietary insight.*

**Keywords:** Ecological Resources, Food chain, Human civilizations, Culinary Prescription, & Indian Cuisines.

## INTRODUCTION

The evolution of human diet is the product of both biological and cultural adaptations to various plants and animals in the environment.

As the end of the twentieth century draws near, it is clear that crisis involving too little food and poorly balanced diets still widely exist. Yet if we examine the natural history of humanity, it is also clear that sufficient food resources have been developed and secured to provide for a growth in population size and sheer biomass beyond any other comparable species. As we have come to know, this growth is not possible without enormous costs to the entire world ecosystem. Thus, the challenge for the twenty-first century will continue to develop and balance our food resources without a further increase in population size or a massive decline in the global ecological resources and cultural institutions that have sustained in the past.

Meeting this challenge will require a new kind of revolution in food production. Our current knowledge base in agricultural areas is substantial and growing, but it tends to be fragmented from the rest of our understanding of the human food chain. Factors that are not as well understood relate to those processes that occur after a crop is harvested, when it is transformed into a food to be consumed in a social context.

Although changes in food technology have continued to occur throughout human history, we do not fully understand the nature of the biological, cultural, and environmental factors that have made them possible. Nor do we understand the degree to which our contemporary diets optimally satisfy our long-term nutritional needs. In order to fill these substantial gaps in our knowledge and to be well-prepared for the challenges that lie before us, we need to develop the same kind of scientific knowledge base about foods that we now have about crops.

## FOOD AND HUMAN EVOLUTIONARY BACKGROUND

Throughout evolutionary history humans have prepared or transformed foods to make them edible. The preparation of food before consumption, which is the foundation of cuisine, has always been a part of the human behavioural repertoire and helps in defining the species. Unlike most related mammals and primates that begin their digestion in the process of chewing their food, humans often begin digestive processes outside of the body, using tools for this purpose. In other words, what humans do to food before eating it often transforms the food

in ways that make it more digestible. (<http://www.encyclopedia.com/food/encyclopedia-almanacs-transcripts-and-maps/cuisine-evolution>)

Abundant archaeological evidence shows all kinds of tools used for food preparation throughout human evolutionary history. For example, ancestors from the genus *Homo* perfected tools that could cut a piece of meat more effectively than their canine and incisor teeth. They found they could crush a nut or other hard seed pod more efficiently with a stone pestle than with their molar teeth. From a biological evolutionary perspective, the continued use of tools and fire and the broad effects of the domestication of plants and animals have altered important aspects of the human food chain and has significantly affected the evolutionary dynamics that underlie the species.

Much of this biological evolution occurred prior to the origin of agriculture that was marked by the domestication of plants and animals. The enormous success of agriculture and horticulture (beginning approximately ten thousand and five thousand years ago respectively), provided the practicing societies with the ability to feed an excess number of their members and thus served as the basic economic subsistence engine for the broad emergence of human civilizations and the overall growth of humanity to its mega population size.

Several major revolutions in food production have occurred in the natural history of humanity. Each has become associated with enormous increases in the population size of the species.

## BIOLOGY AND CULTURE

Over time, a trial-and-error process results in the nutritive success or failure of new cuisine strategies. Those strategies that satisfy basic nutritional needs become incorporated into food traditions and provide subtle and not so subtle advantages to the people who practice them. When the cause-and-effect relationship between the cuisine practice and the outcome are readily evident, as in changing the appearance, taste, or aroma of a food and then noting a benefit, it is relatively simple to understand the functional significance of the cuisine practice. However, when considering subtle cause-and-effect relationships not readily evident and expressed some time long after the prepared food is consumed, it is difficult to detect the relationship and consciously to behave in the appropriate way. For example, the time it takes to develop a nutritional disorder for a vitamin like niacin is so long that the appropriate cuisine practice may not ever evolve, as was the case for extracting the niacin from maize in Europe. Epidemiological studies of long-term disease outcomes that may extend over a substantial portion of a lifetime, such as cardiovascular disease and some forms of cancer, demonstrate how subtle some of these effects are.

On the face of it, the degree to which a culturally based diet satisfies basic nutritional needs is a matter related to the biology of humans as omnivores. Humans uniquely depend on cultural adaptations concerning diet to solve the nutrient problems that biology is incapable of solving on its own. Instead, humans have discovered and encoded in cultural traditions wisdom about diet that provides a culinary prescription for survival and good health. What people eat is largely dictated by cultural traditions, but the degree to which a diet satisfies basic nutritional needs largely depends on human biology. This obvious interface between biology and culture has encouraged the development of a new approach or paradigm that analyzes and interprets biological and cultural adaptability as continuously interacting phenomena throughout human evolution.

No doubt the evolution of agriculture would not have occurred without these counterbalancing nutricultural evolutionary steps. In fact this basic theme of nutricultural is repeated with other aspects of cuisine and thus forms the basis of a broad trend throughout history in the consumption of every major plant food.

The remarkable growth of knowledge about what people eat arises from an understanding of both the pre-history of diets and the recorded history of foods. Also a substantial and growing ethnographic and cross-cultural literature concerning folk cooking practices allows tests of specific hypotheses about food processing. The available data in food science and technology, the nutritional sciences, biochemistry, ethno botany, pharmacology, and the neurosciences is extensive.

### THE EVOLUTION OF INDIAN FOOD

The world sings praises about the Indian cuisine. Although divided into four basic regional styles of cooking and presenting food, namely North Indian Cuisine, South Indian Cuisine, East Indian Cuisine and West Indian Cuisine, overall, India has the largest variety of dishes to appease the sweet, salty and spicy factions and holds the crown of being the world's most flavoured cuisine. It consists of various traditional and regional cuisines, native to Indian subcontinent. Indian cuisine is heavenly influenced by religions. For instance- Punjabi's prefer spicy food whereas south Indians have their own spices. Early diet of Indians was mainly composed of legumes, vegetables, dairy products and honey. Later, trade with British and Portuguese added more diversity in Indian food. But modern Indian cuisine has gone through many changes and introductions to be where it is today (<http://www.tredmantra.com/the-evolution-of-indian-food/>)

To know where it all started from, one just has to go back 4000 years into the Indian past when Harappa and Mohenjo-Daro Civilization introduced "cultivation". Although these two Indus Valley Civilizations sowed the seeds of our modern day food, it was the Vedic Civilization who defined better forms of cultivation to obtain better fruits of their hardwork. During this era, a normal diet consisted of fruit, vegetables, meat, grain, dairy products and honey. Main products were wheat, barley and dairy products. There was Aryan influence which focussed on balanced diet including fruits, meats, grains, dairy products and honey.

India has a glorious tradition of healthy food. People in India have always respected food and this can be seen even today. In Indian tradition, food is placed next to God and that is the reason why food forms a main part of ceremonies and religious celebrations. Indian food is born from the concept of Ayurveda. Ayurveda comprises two word – ayus, meaning life and Veda, study or knowledge; hence Ayurveda means knowledge of life, which begins from the basic ingredient 'food'. Indians had a very healthy lifestyle – the most common profession was farming and hence fresh produce would be cultivated for consumption. All good health starts with good digestion and strong metabolism. Food is as powerful as medicine. There is a shlok in Ayurveda which means "food is medicine if consumed properly." It says, we should intelligent foods, opt for fruits and vegetables and drink lots of water. In our busy schedule, we need to opt for good eating habits and maintain a healthy lifestyle. We should eat for our soul not for our body. The food that we consume can nourish our soul and mind, not just our body. This is the sole purpose of Ayurveda

Then came the time when various empires ruled the country and brought with them their own cuisine and culture. For example, the Mauryan culture taught us all about basic kitchen etiquette while the Gupta Empire, influenced by Buddhism and Jainism, condemned the consumption of meat for animals for they were considered sacred in certain religions which were being developed in various different regions.

But probably the extensive variation brought in our cuisine was through the many generations of Mughal who ruled all over. They introduced dishes such as *biryani* and *samosa* and that are widely popular even today.

Then finally came the Portuguese and eventually the British Empire who brought with them many fruits and vegetables. The Portuguese brought with them potato, chilli, tomato, papaya and many more such wondrous products that are so often used in our meals today. Central Asia too played an important role during this time, in modifying our food by introducing Chinese cuisine which was creating a wave of its own throughout the world. There was Chinese influence from Chinese community in Calcutta. What we eat is the indianised version of Chinese. It has Manchurian, momos, fried rice and noodles being the popular ones

All these different eras have created an impact on what contemporary Indian food we heartily enjoy today. Moreover there are certain dishes are not only famous in the region they belong to but throughout India. For example, *Dosa*, *Pav Bhaji*, *Butter Chicken*, *Paani Puri-Chaats*, *Biryani*, etc. are devoured by all Indian citizens.

Mongolian influence focussed on milk products such as- ice cream, yoghurt and cheese. They were nomads and people of Afghanistan called '*Pilaf*' as their staple food.

Back in 500BC there was Persian influence that had Muslim touch and drooled over biryanis and pulao. They preferred heavy, rich food with saffron and unleavened breads. Almonds and pistas were their favourites.

Influence from Middle East is the Arabic influence which consists of tandoori kebabs. It also has *pistas*, *hinga* and coffee. They have *Labneh*, yoghurt without butter fat.

Except this, British influence more on the ways of eating than on food. There has been numerous changes in the food as well. Banana leaves have been replaced by plate and crockery and chaukis with dining tables.

Modern Indian food carries the weight of maintaining traditional trends of the various Indian cuisines which include both the Hindu vegetarian diet and the Mughal delicacies. But in way it puts a twist of its own by involving foreign cuisines which have helped in developing and broadening the palate of people hereby assimilating various food cultures of the world under one roof.

With colonization, Indian food lost its glory and all kinds of changes came in. People started to use recipes that suited them and use of more aromatic spices and flavours started to prevail and hence Indian food started to lose its originality. Along with many other arts and crafts, food too went into a decline.

Indian food has gone through simple times, rough times and today with globalization; Indian food is still struggling to find its niche in the world. The reason for this is very simple – to an uninitiated, Indian food is just like a normal curry eaten with rice or bread. Indian food has an impression of being spicy and hot; but we Indians know that this is far from true.



India is a melting pot of cuisine. Indian cuisine is categorised on the basis of spices, herbs, grains and fruits. India's unique blendness of spices and cuisine is due to diverse regions and culture. Indian cuisine is one of the most popular cuisines among the globe and it also inspires other cuisines. It has geographical varieties-

1. Northern- this cuisine makes use extensive use of ghee, butter and cheese. Gravies are typically dairy based. It is famous for different kinds of kebabs.
2. Eastern- it is popular for desserts, more *rasgulla*, *chamcham* and *sandesh* etc. Rice is the staple food of eastern area and popular dishes of Orissa are *Dalma* and *Santula*.
3. Southern- main food is sambhar and rice with varieties of pickles. It classifies food into six tastes- sweet, sour, salty, bitter, pungent and astringent.
4. Western- it has three classifications; Gujarati, Maharashtrian and Goan. Gujarati cuisine is mostly vegetarian while goan cuisine is mostly sea- food based. <http://www.theculinaryscoop.com/2011/02/history-og-indian-cuisine/>)

## EVOLUTION AND EATING HABITS

Believing our genes are nutritionally tied to the Palaeolithic age, some scientists are hunting for clues and gathering answers that may shed light on modern disease and dietary imbalances.

We live in a digital age – a world in constant motion, constant change. So one may question, understandably so, what today's technology-toting, fast-food-frequenting individuals could learn by looking back on the lives of hunter-gatherers from the Palaeolithic Era, a period that lasted about 2.5 million years and ended around 10,000 years ago with the development of agriculture. According to some scientists, modern humans could gain some valuable dietary insight.

Much attention is being given to what people ate in the distant past as a guide to what we should eat today. Advocates of the claimed palaeodiet recommend that we should avoid carbohydrates and load our plates with red meat and fat. Its critics, on the other hand, argue that these are the same ingredients that would set us up for heart attacks.

A factual foundation for the debate is provided by a review of the eating patterns of early humans and how we adapted to digest starches softened by cooking. The researchers contend that it was digestible starches that provided extra energy needed to fuel the energy needs of bigger brains, rather than extra protein from meat to grow these brains.

Over the last century, our eating habits have changed dramatically, with our diets becoming almost unrecognisable to those of our grandparents and great-grandparents. The way we shop, cook and dine has been altered by our attitudes towards food – yet is the modern way the better way? <http://www.highspeedtraining.co.uk/hub/changes-in-eating-habits/>)

As has been seen, modern day cooking allows far less time than days gone by. Long gone are the hours spent slaving over the stove. Instead, convenience food has become much more popular, with people reaching for convenience foods and microwave meals several times a week.

Convenience is a real selling point for people these days: many people in the modern world don't make time for food and believe that they're always too busy. Yet cooking fresh food doesn't have to take hours – compare making a quick fresh pasta dish with standing in a queue at a fast-food restaurant – the amount of time is likely to be the same.

In our grandparents' day, learning how to cook was the only way to be sure of a good meal on the table, and it was usually done by the woman of the house. These days, cooking has become almost a hobby rather than a necessity, with many people not knowing a wooden spoon from a spatula. Many people just haven't acquired the culinary skills that their parents had and, alongside the rise in convenience foods, cooking fresh every day has become a dying art. When our grandparents were cooking meals they lived a much more self-sufficient life, growing a lot of their own vegetables and shopping daily for groceries due to the lack of refrigeration. It was a generation of 'making do' and being creative with what few ingredients were available.

People in the modern day do far less exercise (on average) than people in our grandparents' day and this has a huge impact on our general health and our waistlines. Modern life is all about the sedentary lifestyle – many of us drive to work, sit at a desk all day, drive home and then sit in front of the TV, until we go to bed. We then still have our 3-meals-a-day as well as all the snacks and hot drinks in between. Many of us consume more energy than we use, which causes us to become lethargic, unhealthy and overweight.

Furthermore, food allergies and intolerances are more common now than they ever have been. This is often attributed to processed, unnatural and chemical-filled foods – none of which were present back in our grandparents' days. Can these alterations to our food make our immune systems weaker? There's also the suggestion that our 'cleaner' lifestyle means we are less exposed to germs, that we don't do as much activity and that we eat less fruit and vegetables, all of which may weaken our immune systems and reduce our toleration to foods.

It's worth considering that our grandparents didn't suffer from allergies, not because of their healthier lifestyles, but because they simply weren't as aware that conditions such as allergies existed. If people are less aware of the signs and symptoms, they will be less likely to report them, and less likely to be diagnosed with the condition. In your grandparents day, it was common place for people only to visit the doctor when they were really ill, so many food intolerances may never have been diagnosed.

## CONCLUSION

Concluding the article I would like to say that Humans began the digestion process before it entered their systems by cutting meat which enhanced the biological evolution. The enormous success of agriculture and horticulture, provided the practicing societies with the ability to feed an excess number of their members and thus served as the basic economic subsistence engine for the broad emergence of human civilizations.

On the face of it, the degree to which a culturally based diet satisfies basic nutritional needs is a matter related to the biology of humans as omnivores. Humans uniquely depend on cultural adaptations concerning diet to solve the nutrient problems that biology is incapable of solving on its own. Instead, humans have discovered and encoded in cultural traditions wisdom about diet that provides a culinary prescription for survival and good health.

India has a glorious tradition of healthy food. People in India have always respected food and this can be seen even today. In Indian tradition, food is placed next to God and that is the reason why food forms a main part of ceremonies and religious celebrations. Indian food is born from the concept of ayurveda and so after being influenced massively, portrays its character and stands out as one of the best cuisines in the world.

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# **SECTION IV FOOD, AND ITS SOCIO-CULTURAL SIGNIFICANCE**

- Chapter 22**    **Festive Cuisine of Odisha: A Journey Blend with Heritage and Culture**
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# 22

## CHAPTER

### **Festive Cuisine of Odisha: A Journey Blend with Heritage and Culture**

**Abinash Dash\* & Ankit Dambhare\*\***

#### **ABSTRACT**

*Odisha is known for her colourful festivals. The festivals are numerous, spread over all the twelve months of a year. The village life centres on agriculture. Therefore, there is an intimate relationship of festivals with the numerous agricultural operations that take place. Orissa Festivals are also observed as part of Hindu religious faith. Dates for Odishan festivals are determined by the traditional Hindu calendar. The specialties of most of the Orissa festivals are that, on these occasions, much merry making is done, new clothes are worn and special dishes are prepared at home. The Orissa cuisine is at its test in these functions. Delicious dishes prepared include small cakes known as Pitha' and also sweets made from milk. Festivals carry forward people's tradition and cultural heritage. A brief List of major festivals of Orissa during is Calendar year as January : Makar, Dhanu Yatra February: Magha Saptami, Saraswati Puja March : Dola Yatra (Holi), Siva Ratri April : Sokastami, Mahavisuva Sankrati, Rama Navami May : Jhamu Yatra, Chaita Parva June : Sitalsasthi, Raja Festival July : Car Festival ( Rath Yatra) August : Jhulan Yatra, Rakhi Purnima September : Ganesh Puja October: Durga Puja, Kumar Purnima, Diwali, Nuakhai November : Kartika Purnima, Aunla Nabami December : Prathamastami . 'Traditional Food ' might sound boring, since of late there has been an increasing trend to consume or cook foodstuffs which are trendy or are promoted by big brands. Well, these are fine once in a while but alarmingly, these are fast replacing the traditional diets on a routine basis besides causing serious health problems. On a contrary, traditional meals have been developed with time and methods of cooking preserved through years keeping in mind the usefulness of ingredients. These dishes aren't just a part of our culture but are also a storehouse of nutrients. In Each festival, there is a certain type of food which have Nutritional value, Socio-cultural, seasonal impact with relation to Culture and heritage of the common man some of them being very rare and typical grandma's recipes which our children may never be able to relish.*

*Ironically many of these are also being re-introduced as health foods. But the fact is that it's a legacy we have inherited and should preserve it. It should not be confined to temple Prasad or to be consumed on select occasions only. Mothers and homemakers should try and introduce as many. The Cope of this paper is to make alive this cuisine in the Modern era.*

**Keywords:** Odisha, Festivals, and Village Life Centres, Heritage, Nutritional Value.

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## INTRODUCTION

God can be seen or not or whether He exists or not is a debate and a discussion that has no end. But if we examine closely, we shall realise that, yes the super power which guides us, does have a form. It also has a name which has a universal acceptance. It is for this that people are struggling day-in-and-out and only when we have it with us; we feel a sense of satisfaction. And that is our FOOD. I really believe that Food is God. Food gives us all the energy and stamina to work and we all work hard to get and afford to eat good food. When we have it with us we are satisfied but think for a moment, that when we feel hungry and we crave for food, it becomes our only need at that point of time

(Sen, C.T., 2004) It seems to have re-written during 16th century when the king of Khurda had newly installed the images after destruction made by Kalapahad, Muslim general of Nawab of Bangal. In This Madala Panji few parts nicely described about Socio-economical culture of Odisha along with relation of Festival foods and its impact of concern Session and rituals. Nutritional value of a food never change with the change of session but fact is that in each festival there is some signature foods known as festival foods have a strong bond with our health concern in relation to Climatic phenomena .

(Ray, 2013) Foods from this area are rich and varied, while relaying heavily on local ingredients. (The flavour is usually subtle and delicately spiced, quite unlike the fiery curries typically associated with Indian cuisine). Fish and sea food such as crab and shrimp are very popular. Chicken and mutton are also consumed, but somewhat occasionally. Only 6% of population of odisha is vegetarian and this is reflected in its cuisine. The oil based use is mostly mustard oil, but in the festival ghee is used. Punch phutan, a mix of cumin, mustard, fennel, fenugreeks, ralongi (nigella) is widely used for tempering vegetable and dal, while garam masala (Curry powder) and haldi (turmeric) are commonly used for non vegetarian curries. PAKHALA, a dish made up rice, water, and yoghurt that is fermented over night is very popular in summer, particularly in rural areas. (C. and Joshi, , 2013.) Odia are very fond of sweets and no odia repast is considered complete without some desert at the end. Festivals and fast is weakness of Odisha Culture. One can find the restaurants serving food without onion and garlic in major places like Puri and other coastal areas, which are run by many Brahmin owners.

### Odia Calendar Wise Festival

Session	Session in Odia	Duration of Session
Summer	<i>Grishma</i>	From March to June
Rainy	<i>Barsha</i>	from July to October
Autumn	<i>Sharata</i>	Transition months March, April and May
Pre winter	<i>Hemanta</i>	September
Winter	<i>Shita</i>	from October to February
Spring	<i>Basanta</i>	March, April and May



**MAJOR FESTIVALS OF ODISHA**

- January - *Makar, dhnu yatra*
- February - *Magaha saptami, saraswati puja*
- March - *Dola yatra (holi), sivaratri.*
- April - *Ashokastami, Mahavisuvasankranti, rama navami*
- May - *Jhamu yatra, chaita parba*
- June - *Sitalsathi, Raja festival*
- July - *Ratha yatra*
- August - *Jhulanyatra, Gamha Purnima (Rakhi purnima)*
- September - *Ganesh Chaturthi*
- October - *Durga puja, kumar purnima, Diwali, nukhai*
- November - *Kushal purnima, anuala nabami*
- December - *Prathasmatami*

**MAKAR SANKRANTI**

Makar sankranti is a major harvest festival celebrated in various parts in odisha. According to the calendar, When the sun moves from the tropic of Capricorn to the tropic of cancer or the daksinaya to uttarayana in the month of pausa in mid january, it commemorates the beginning of harvest season. The movement of sun from one zodiac sign into another is called sankranti and sun moves into the Capricorn is makar. It is celebrated in 14<sup>th</sup> of January. On the day of the sankranti food offering are made to god sun is worshipped with great fervour and enthusiasm by one and all the festival is also called makara mela in the Makar *Makar Chawal* ( Soaked Rice, Jaggery, Ripe Banana, Cheese Mix) is prepared which is special for the day. (C. and Joshi, 2013.)

**DOLA PURNIMA**

Dola purnima is a popular festival in the coastal district of odisha. Lord jagannath is worshiped as a the name of Dolagabinda in this festival. On this daily odia calendar is ready and it is worshiped on dolavedi in front of dolagbinda. It is the full moon day in the month of Falguna. This festival has been referred as basnta uchhoba the festival held in the honour of madana or the cupid was later transformed as the DolaUchhaba or swing festival of krisna according to Padm Puran.

**MAHASHIVA RATRI**

Mahashivaratri or the night of shiva is celebrated with devotion and religious fervor in honor of lord shiva one of the deities of hindu tritini shiva ratri falls on the moonless 14<sup>th</sup> night of the new moon in the hindi month of phalguna which corresponds to the month of February -March in english calendar. Celebrating the festival of Shivaratri devotees observe day and night fast and perform ritual worship of shiva lingam to appease lord shiva (Patra, 1968, January.).

### RAMA NAVAMI

The birth day of Rama is observed a Ramanavami on ninth day of the light half of month of chaitra. Though there are very few temples dedicated to Raama in odisha. This festival is widely celebrated by the performance of ramleela based on the famous esppic ramayan. Beginning from this day they continue for over a month. There are several centers where the performances are held with great sanctity. The ram leela held in aureswar of cuttack district and Dasapala of Puri.

### MAHA VISUVA SANKRANTI (PANA SANKRANTI/ODIA NEW YEAR)

In India the month and years are counted on the basis of lunar or solar movement. According to the solar system the month is counted from sankranti to sankrati and in lunar system from Purnima to Purnimavisuva sankranti is the first day of the month of baisakh as well as the solar year this also cllid mahavisuva sankranti or jala visuva sankranti in northern india it is called Jala Sankrnti and in sothren india it is called sakar sankranti in odisha it is called pana sankranti name d after pana the main drink offering specially pana repared on this day.

### JHAMU YATRA

Jhamu yatra is celebrated at koraput with much devotion in the month of May. In the last day of jhamu yatra thousands of devotees come to the temple of goddess mangala. The ritual of jhamu yatra of maa mangala starts yearly in the morning. The rituals include mangala alati suya puja radha kraushna bheta sahana mela. At the tme of yattra putas dance over the fire collect the sacret water from the river prachi and seek the bleesing of the goddess moangala. The ritual continues last night and with snana mrjana kalka nrutiya. jhamu yatra is organized in every Tuesday of the chaitra after dola purnima.

### CHAITA PARBA

Chaita praba is one of the most celebrated trival festival in odisha. chhaita praba is also your getway to discover the age old tradition of trivial communities in odisha. It is largely celebrated y the tribal community's Koya in koraput and bhuyans in Mayurbhanj Sundargh, Keonjhar, and some regions in Bihar. The Koya type of Malkangiri region. Koraput celebrates Chaita Prva as Biju Pandu. The mother earth known as the Gudimata is worshipped with trivial ceremonies.

### RAJA PARVA

Raja Prava is a four day long festival and second day signifies the beginning of the solar month of mithuna from which the session first rain starts, which marks through biological symbolism the mentioning of the sun dried soil with the first shower of the moon soon in mid June thus making it ready for the productivity .it is believed that the mother earth of the divine wife of the lord visnu under goes menstruation the first three days. The fourth day is called as the Vasumati Gadhua or ceremonial bath of bhudevi. The term raja has come from the rajaswala and the mediaval period of the festival become more popular as an agriculture holiday remarking the worship of the *Budevi* (A silver idol) who is the wife lord Jagannath.

During the three days women are given a break from household works and time to play games, unmarried girls decorate themselves new fashion or tradition and alata in feet, swing tied on the branches of the tree, walking barefoot on earth prohibited for all women. Various pithas are made like *podapitha* and *chakuli pitha* are made at home. Raja geet song the people. first day is called pahali raja and second day is called mithuna and third day is basi raj and the fourth day is called vasumti snan. In with the grinding stone as the bhumi with turmeric paste adore with flower sindura other fruits are offered the mother bhumi.

### RATHA YATRA

Ratha Yatra festival is a Hindu festival that involves transforming deities of chariot called Ratha Yatra. Ratha means chariot and the yatra means journey. Annual journey of the divinity in the forms of the idol to their aunt's house (aunt (famine creative aspect of the divinity)). Puri is the oldest, crowded, biggest and most visited city in Rathayatra. The Jagannath triad are usually worshipped in the sputum of the temple at Puri but once during the month of Asadha usually falling in the month of June or July they are brought out on to the bada danda and travel to the Shree Gundicha temple in huge chariots allowing the public to have darsna. This festival is known as the Ratha yatra meaning the journey of the chariots. The ratha are huge wheeled wooden. Ratha yatra also termed as Shree Gundicha yatra. By wear the outfit of a sweeper and sweeps all around the deities and chariots in the Chhara pahara ritual. Powerful sovereign Gajapati and the most humble devotee. on the last day of the festival when deities are ceremonially brought back to the Shri Mandir as per another ritual when the deities are taken out from the Shri Mandir to the chariots to the Gundicha temple where they stay for nine days after ride the chariots back to Shri Mandir. Called Bahuda yatra on the way back the three chariots halt at Themausi Maa temple and the deities are offered *poda pitha* a kind of baked cake.

### MANABASA GURUBAR PUJA

Goddess Lakshmi is worshipped by women and girls in Orissa on every Thursday of the month of Margasira (November – December) and this is known as Manabasa Gurubar. Margasira or Margasir is the ninth month in Oriya calendar. Mahalakshmi, or Laxmi, is the Hindu goddess of wealth and prosperity and is believed to visit homes in Margasira month. Oriya women wake up early in the morning and clean the house to welcome Goddess Lakshmi. There is a popular belief that Goddess Lakshmi only visits clean houses. So all the dirt is removed and the houses are kept spick and span. The entrance to the home is decorated with Alpana. Special pujas are offered to Lakshmi and Oriya scripture Mahalakshmi Purana is read on all Thursdays. A regional pot used to measure paddy is filled with freshly harvested paddy and is kept in the puja area, which symbolizes prosperity. Goddess Lakshmi is the consort of Lord Jagannath and she is worshipped as an independent deity in many regions of Orissa. Gajalakshmi Puja is another popular ritual dedicated to Goddess Laxmi in Orissa.

### BAHA BANNGA

This festival is from the Mayurabhanj of the Santali. They observe this festival in the month of February- March of English calendar. This is a one kind of adivashi festival the people worshipped the goddess Jaher Aya to welcome the new flowers and the fruits. They offer the new flowers to the god then they take it. The Majhi Halam who is the leader of the

village. The people collect the money from the each house and they buy the puja material and observed. in this occasion the ladies are wear long shadhi which is called the kacha and he man also wear the short kacha .in this occasion the people enjoy a lot they dance and singing the different variety of traditional song . Shale is a most popular dish in adivashi cuisine.

### **JHULAN YATRA**

The monsoonal swing festival of the lord jagannath festival display the culture of race common function exhibits and un common fervour of celestial pastime in minde and couple heart to heart often .four amorous pastime of shrimandira in simer chandan in moonson jhulan sarat rata in autum and dola in spring . Devotees rejoice all sparing none. incially celebrated in deva shava mandap in front of the sun temple but new infront of the mukti mandap portico erected later with admirable show . It relates to radha of dawapar with beloved sri krishna the supreme with lalita and bishakha .

### **RAKHI PURNIMA**

Rakhi is the one of the special occasion in India which celebrates the eternal relation between a brother and sister. The festival is celebrated on the full moon day of the month sravan a falls in the month of august. On this auspicious day the sister ties a rakhi on the hand of brother as a mark of love and honour. This Festival also called as "Gamha Purnima "Popular by – *Enduri* and *manda Pitha* (A Coconut, Sugar and cheese stuffed Snacks)

### **GANESH PUJA**

Lord Ganesh the patron deity is the god of wisdom. The auspicious day when lord Ganesh was born begin with great enthusiasm all over the state. The mandaps are colour fully decorated depicting religious theme. The ganesh idols are worshiped within families and the friends. Many cultural events are organize the evening of the day and people participate in with keen interest

### **DURGA PUJA**

Durga puja is the most important festival in the odisha the odisha people celebrate it with great joy and the happiness .Maa Durga is the mother of world. a small ray of her kindness is enough to remove all the sorrows and obstacle Again one time she is the Maha laxmi d maha kali that men the goddess of creation caring and destruction . The goddess is worshipped by the people as the goddess to grant fortune according to the Hindu mythology.

### **REVIEW OF LITERATURE**

An expert's opinion is valuable, but an expert's assessment of the literature can be more valuable. When reading individual articles, readers could miss features that are apparent to an expert clinician-researcher.

In this paper review of literature is a form of secondary literature all previously published original experimental papers that meet the criteria and compare the results presented in these papers. Literature reviews, by contrast, provide a summary of what the authors believe are the best and most relevant prior publications'. Kreiner and N. Kliot (2000) in their article

titled, "Food Tourism in the Holy Land: The Characteristics of Odisha Cuisine" have viewed that there is a significant difference between pilgrims and tourists Cuisine and food culture how affect three common elements like discretionary religious faith, Culture and social sanctions. The study also highlighted certain parameters like Nutrition, socio-economic status and spirituality of odia people connecting with Lord of Universe "Lord Jagannath" which are very important for the purpose of studying Food culture and Cousins of Odisha. W.W. Hunter (1869) "The Imperial Gazetteer of India", Wrote: "We find the aboriginal people worshipping a blue stone in the depths of the forest. But the deity has grown tired of the jungle offerings of the primitive people and longs for the cooked food of the more civilized Aryan race. When the Aryan element at length comes on the scene, the rude blue stone disappears, and gives place to a carved image." Great, Omnipotent, Almighty, yettouchable by all. Untouchability is a hideous sin in the society of mankind. He is a man (Purusha), the greatest man (Purushottama). So He has a right to lead the most luxurious life like an emperor. From morning until midnight He enjoys fifty-six varieties of food (bhoga) and thirty-six kinds of services (khatani Niyoga). Here the conception of God is fully human and majestic.

A.N Tiwari (1999) in his book entitled, "Reference Orissa: A New Perspective" has emphasised on an integrated approach that Jagannathism is more than religious. The trio is of three different colors - white, yellow and black. The first Balabhadra is white, the second Subhadra is yellow and the third Jagannath is black. These colors meant for the gods represent the colors of the human races. In the colour conception the yellow faced Chinese, the white skinned European and the black colored Afro-Indian races are clearly indicated. In other words, the Austro-Asiatic family of the Indian peninsula, the Chinese race of the Tibetan land, and beginning from the Turkish and Mongoloid family of North and Central Asia with the Indo-European descendants to the Negroes of Africa and the tribal races of South America are also included

## METHODOLOGY

Research methodology and method of data collection is mainly based on two sources namely: Primary source of data collection which is through questionnaire. Current paper contains Descriptive – survey, historical, content analysis, qualitative

## INGREDIENT WISE FESTIVAL FOOD OF ODISHA

### RICE, BREADS & LENTILS

Generally people use many kind of rice. One is arua (sundried and milled paddy) and another is ushuna (half boiled and milled paddy). The former is more popular in the rural area whereas ushuna popular in coastal villages. Generally scented rice varieties are used for kheer/ payas (Appadurai, 1988.).

*Chuda* - flattened rice. *Mitha baht, kaanika* - mildly sweetened rice with assorted spices. *Khechedi* - rice and lentils with vegetables and occasionally potato. It is generally food at religious festivals. *Mudhi/Ukkhuda* - it is puffed rice. Specially used in Roja Parba it send during this festival to all Married daughters from fathers house. *Pakhal/Dahi Pakhala* - rice soaked in water with yogurt and seasonings. During Ratha yatra this Dishes use in Sri Mandir. *Palao* - Rice in clarified butter with raisins, nuts, vegetables, whole spices.

**DALI:** - *Buta Dali* – chana dal with coconuts, raisins, dry fruits, mild spices. *Mitha Dali* – tur dal cooked with little jaggery, ghee, and bay leaf. It is most popular in jagannath temple. *Muga Dali* - mung bean dal cooked with coconuts and mild spices. *Masura Dali* – masur dal cooked with cumin, mustard seeds and bay leaves. *Dalma* – mixed lentils with various vegetables, is very popular due to the nutritional value and consumed as a complete food. *Mandia jau* - boiled ragi cooled over night. *Chhatua* – there are various kinds of Chhatua eaten as a daily breakfast. It's a paste that has flour made from fried whole grain or wheat or rice and then mixed with sugar and banana with milk. *Luchi* – unleavened flour bread deep fry in oil. *Paratha* – layered wheat bread rolled out in triangle or round shape and tawa fry. *Poori* – UN leavened whole wheat flour bread deep fry in oil.

### CURRIES, VEGETABLES & OTHER MAIN COURSE ITEMS

Odia curries are not full of masala floating in oil; rather these are mildly spiced and given the original taste of ingredients. (Ray, 2013) Around the areas coastal odisha food is sweet (coconuts, ghee, Jaggery is used on account of influence of the jagannath temple), chilli and curry leaves are used in regions closer to Andhra Pradesh and mustard paste kalajeera are used mostly all over. The coast line and numerous river offer abundant fish, while prawns comes from Chilika Lake.

*Alu bhaja* - potato slices fried. *Alu potala rasa* – curried potatoes and pointed gourd. *Ambula Rai*- Dried Mango Slice and Mustard Gravy Specially signature dishes where Totmoto not used. *Bilati baigan Khata or Patal Ghanta*– very sweet *chutney* made from tomatoes, dates and sugar. *Dahi bhindi* - ladies finger fried and deepened in spicy yoghurt. *Besara* - assorted vegetables stir fried in panch phutan and mildly spiced mustard sauce. *Badi Dahi* - fried *Badi* deep in spiced yoghurt. *Badi chura* - powder *Badi* made up of urada dal with green chilli sometimes garlic and onion. *Chadachadi* – sauté mixed vegetables, diced potatoes and shrimp in a spicy mustard sauce. *Chhencheeda* - lightly spiced fish head and mixed vegetables. *Chingudi malai* – fresh water prawn cooked in coconut milk and spices. *Chingudi jhola* - fresh water prawn cooked in thick, spiced gravy. *Kankada kalia* – a spicy crab curry. *Dahi baigan* – deep fried egg plant slices in spiced yogurt sauce. *Dahi Machha* – fried fish in mildly spiced yoghurt sauce. *Ghanta* – vegetable medley and spiced powders sauté in oil. *Mahura* – Vegetable cooked oil and then Cummins seed masala. *Kancha kadali Bara jhola* – a curry of green plantain/ unripe banana kofta. *Kadali bhanda rai* - tiny flowers of banana cooked in mustard chilli sauce. *Kakharu phula bhaja* – pumpkin flowers deep fried in besan or rice flour with spices. *Kankada jhola* – crab meat and potatoes in rich gravy with punch phutan. *Khata* – literally meaning ‘sour’ á sweet a sour marmalade served as a side. *Kolatha Dali* – chilke wale horse gram soup cooked with mustard seeds and garlic. *Machha jhola* – fish curry, in spicy gravy seasoned with mustard, ginger, garlic, cumin and turmeric. *Machha bihana* – fish ovum dumplings made in to a spicy curry. *Kanji*- a traditional soup made from left over water from boiling rice and cooked with vegetables. *Ouu Khata* – a sweet and sour marmalade made up of elephant apple (ouu) dillenia indica in jaggery. Mostly in autumn some *tome ouu* added to dal. *Patua* – vegetable or small fish wrapped in banana leaves along with mustard seeds, ginger garlic paste and smoked in earthen vessel. *Panasa kotha* – curry of unripe jack fruit with spiced garam masala and garlic. *Posta tarkari* – puppy seeds paste cooked with assorted vegetables and potatoes. *Machha besara* – pan fried fish in a mustard gravy. *Saga* – fried green leafy vegetables some time with lentil balls

and *Badi*. *Santula* – lightly spiced assortment of stem vegetables. *Sakara* - vegetables cooked in Jaggery and unripe tamarind sauce, coconut and spice.

## DESSERT /SNACKS AND BEVERAGES

*Arisa pitha* – rice flour with Jaggery and fried in ghee along with seasoning of seas seeds. *Chakuli pitha* – pancake similar to dosa. A sweet variation called *Puli* also prepared adding Jaggery, ginger and frying in ghee. *Buddha Chakuli* is a most in depawali paya sradha and smbaddhasami. *Chitau pitha* - fried pancake made from rice flour, coconut, Jaggery and milk obtained offered in pujas to lord jagannath in chaita lagi amabasya. *Chandra kanti* – a deep fried sweet made from mixture of green gram and rice flour. *Chhena gaja* - deep fried ricotta cheese soaked in sugar syrup. Chhena poda – baked sweet and ricotta cheese cake. *Chhena kheeri* – a *kheer* made with cubes of ricotta cheese. *Chhena jilapi* – a jalebi made with knead ricotta cheese. *Chhena jhili* – a fried cheese in sugar syrup. *Enduri pitha/ Haladi patra* – batter of black gram rice with coconut stuffing inside wrap in turmeric leaves and steamed like *idli*. *Gointha godi* – small balls made up of rice flour deep in season sweet milk. area of expertise pousa amabasya. *Karanj* – a dumpling made up maida and stuffed with coconut, cashew nut and raisins. *Kakara pitha* – a deep fried sweet dish like arisha but made up wheat flour and coconut, jaggery, black pepper and edible camphor and chhena stuffing. *Khoja/fenni* – shaped dough fried and drizzled with sugar syrup/*Kheeri/payas* – rice cooked in sweetened condensed milk. *Kheer sagar* – cheese dumpling in condensed milk. *Laddu* – Sweet balls made from lentils, and dried fruits. Or Coconut or Rasi Worship Ganesh puja and Sarawsati puja. *Rabidi* – Sweet cheesed milk drink, occasionally flavored in rose water. *Malpua* – sweetened deep fried batter of a mixture of banana and flour. *Manda pitha* – sweet dish made up of rice flour stuffed with coconut and sugar. During Rakhi Purnima. *Matha puli* – sweet dish made from urada dal. *Pitha* – coconut, lentil, jaggery condense daily products in crapes. *Rasmalai* – cheese dumpling in thickened. *Rasabali* – flatten disk of ricotta cheese soaked in sweetened condense milk. *Rasagola* – cheese dumpling in sugar syrup. Worship to Maha Laxmi During Ratha Yatra *Suji kakara pitha* - a sweet dish made of suji with coconuts stuffing. During Durga puja or Bijaya Dasmi. *Tala pitha* – a sweet dish made of palm fruit. During Roja Parba. *Bela pana* – a sweet shake of ripe pulp of aegle marvelous with milk, sugar and a pinch of black pepper. *Nabtapana* - sharbat made of chhena, Jaggery, banana, grated coconut and black pepper. During Maha Vishuba Sankaranti or Pana Sankarnti the Odia New Year.

## RESULTS AND DISCUSSION

Data collection is an important aspect of social Research. Without data collection there can be no research or survey no conclusion can draw without in the present study the research to resource to primary, secondary as well as the case study method. The search made an initial start with secondary method of data collection. This method mainly includes the review of past. It gave an extensive idea to the research to formulate the schedule and to imagine go into various dimension and aspect in the field study. The review has to be done in such a way that when the purpose study is completed, it would add its own contribution to the quantum of knowledge in the concerned subject. The second method mainly pertained to making extensive review on the topic of study. The review is made from existing books, journals and concerned web sites.

### OBSERVATION

Research inspection, is a methodical, undeviating, premeditated and explicit inspection of the unstructured occurrences of the time of occurrences. It is one of the effective method of collecting reliable information about the odia cuisine of eastern India, observation techniques allows the researcher to observe the subject in a natural setting. Under this method getting information that many of Festival cuisine brunt of time bound factor like Makar Sankranti, Roja parv and Manabasa Gurubar like festival have geographical characteristics which influence foods like *Dalma* without Potato, and *Poda pitha* with Jaggery as it have a impact factor in monthly phase signify Bhudevi (The Goddess of soil)

### LIMITATION

Each research has to face some problems and difficulty while undertaking research work particularly while collecting data. Due to time limitation it was confined and limited. Due to large size of schedule some respondent are getting broad and irritated while interviewed. Study was affected by illiterate and lower education respondents they felt hesitant. Age Factor is also another Variable.

### CONCLUSION

Post-Colonialism refers to the time after Colonization. In this period, state of the mind of Indian people is hybrid and their culture is fragmented. The present paper explores the post-colonialism in the light of Odia Food culture and heritage in Context to festival around the year, Festival attach with centripetal religious force "The Lord Jagannath". The Journey of a Common Odia people From Birth fire to Funeral fire. Every Occasion there must be certain food and cuisine attach with every ceremony. This paper highlights the importance of Odia Festival, tradition and culture in response to the odia cuisine. The most popular cuisine in the eastern India. Its influence has run over the tourist taste and they prefer to have odia dishes rather than any other dishes. Odia cuisine has more significant role in eastern region and most of the foreigner tourists are like to have the odia food. The Quintessential characteristics of Odisha culture and heritage has made it from pan-Indian to pan-Continental. The Car festival of lord Jagannath now not limited to Puri or Odisha rather it celebrated in global scale reverberation echos of which are heard from Los Angeles to Picca Heidel and Phila delhpiha to Tokyo even Toronto Like Ocean current Odisha Food culture will be reach Globally one day if Proper Research and Initiative taken in Future .

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<b>23</b>
<b>CHAPTER</b>

## **Food and its Socio-Cultural Significance: Food Habits of Bengali Women: A Historical Backdrop**

**Bonophool Banerjee\***

### **ABSTRACT**

*What Bengal thinks today India thinks tomorrow – this popular statement was enough in earlier days to understand the importance of rich culture and heritage the Bengal is carrying with since then era. As India is a vast country so it will be a great challenge to highlight its socioeconomic influence on food and culture within this limited scope of boundary. So I will try to highlight the **FOOD HABITS OF BENGALI WOMEN IN ANCIENT DAYS** from where the culinary journey began for Bengal.*

*In ancient India, food was described as **PRANA** as it helps in sustaining life and supplement nutrition. It is already documented in much Indian literature that the food intake varies in India within the same culture, within the same place, family and gender as well. A study of Bengali literature both fiction and non-fiction bring forth the ample evidence that food habit of men and women have differed drastically in the past. It won't be out of context to remind that in those days, the birth of a boy was generally cherished in the Indian family and the birth of a girl was often regarded as auspicious. In Bengal, the birth of a boy used to be announced by blowing a conch shell where as the birth of a girl was always lamented by her father's family. In that period, the boy was always offered with a best and better portion of the food where as the girl had to manage with the left over only. Hence it is but natural that food of the girl would differ from that of boy. This situation forced the Bengali women to learn the way out for their meal by using their urge and intellect for survival.*

*The present course of study will reflect how the then women of Bengal have led their life for survival and also how a unique gender food took birth naturally through their struggle for existence.*

### **INTRODUCTION**

As the discussion goes in respect to ancient Indian history, It is quite evident that like other field of education and learning, cooking also took in its own path as per the situation and need and as a result it has become well flourished globally through number of turn and twist in the modern world. The Aryan sage of those days understood that the strength,

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intelligence and the life span is directly depended on food habits of human being. That is why they gave very in-depth mandate about the selection of food and cooking styles to be involved for their best and for effective outcome. Also they did a tremendous study about the effectiveness of different food about its positivity or negativity in respect to health in case of observing different vows by Indian women.

In ancient India, food was described as PRANA as it helps in sustaining life and supplement nutrition. It is already documented in much Indian literature that the food intake varies in India within the same culture, within the same place, family and gender as well. A study of Bengali literature both fiction and non-fiction bring forth the ample evidence that food habit of men and women have differed drastically in the past. It won't be out of context to remind that in those days, the birth of a boy was generally cherished in the Indian family and the birth of a girl was often regarded as auspicious. In Bengal, the birth of a boy used to be announced by blowing a conch shell where as the birth of a girl was always lamented by her father's family. In that period, the boy was always offered with a best and better portion of the food where as the girl had to manage with the left over only. This practice was continued even after the marriage of girl. The Bengali Cuisine is synonymous with one food item, i.e Fish. But in any ways all Bengalis never eat the same kind of fish or never eat on the same day. In most of the cases, the women used to eat fish with lower nutritive value where as the men used to get fish of higher nutrient value like *ROHU* or *KATLA*. Hence it is but natural that food of the girl would differ from that of boy. This situation forced the Bengali women to learn the way out for their meal by using their urge and intellect for survival.

### HISTORICAL BACKDROP

Bengali women were always deprived from the balanced nutrients in their daily diet and many studies shown that many women used to attend the need of their family members at the expense of their own needs. In the past the Bengali widow had a societal sanction about the lack of nutrition. Apart from strictly plan dietary guideline in their everyday life style, they had to observe *ekadoshi* and *ambubachi* (the three day period in the Bengali Month *Ashar*, according to the almanac, marks the beginning of rainy season). Necessity is the mother of invention. Within the confines of their wretched existence and having faced centuries of dietary restrictions ( animal protein and some plant) on them these resourceful ladies responded by eating a mouth watering array of vegetarian dishes which continue to be cherished as delicacies today. So, the common misconception of that fish loving Bengalis are unappreciative about vegetarian food is absolutely wrong. Many creations of those ladies under the influence of insane social restrictions are cynically adopted in non vegetarian cuisine of Bengal by simply replacing bori (sundried lentil) often either with fish head or shrimp.

Though the widow food was completely vegetarian but *par boiled rice* and *masur dal* (lentil) were not allowed. Vegetables like *chichinga* (snake gourd) and climbers like *pui* were also a great no no. In spite of their high nutrient content they were restricted as this was believed that these food items are detrimental to celibacy.

In the earlier days women of Bengal had a very complex relation with the food. In the beginning of 19<sup>th</sup> century, asking for food was highly disapproved in the society. Even it was also deeply engraved in the mind of little girls of those times that expressing hunger is a shameful act. This was so ingrained in their mind that they were overlooked the nutrition and love

for food. Women were never permitted to take food before or in front of men. They were always treated as the head of the household and laden with all chores and looking after all the babies at home.

Fish had a very strong importance in the married women's life. The taboo was to eat or at least touch the bone of the fish with their teeth on every *ekadoshi* as this will have positive effect in their husband's life. Also no one would allow a married woman to leave the house without eating fish and rice. The food of the men was always different from that of women. Men were always treated with the freshly bought fish and best part of the vegetables first and the food was always insufficient for the women in most of the middle class family. So women had to manage with leftovers or manage something from the neighbourhood. Hence they were naturally very innovative for their dishes. They had to depend on *shaak* (green leafy part of plant), root and tubers like *kachhu* (Colocasia, the edible root). The skin of different vegetables like *parwal* and bottle gourd were made into a paste cooked. The finely sliced skin of *laau* (Gourd) is still cooked in modern days with tempering of black cumin and dry red chilli whole. Women used mustard oil, mustard paste, coriander leaves and ginger paste etc to prepare these kinds of dishes. A very popular *Vaadas* (Shallow fried dumpling) made with partly rotted coconut and poppy seed paste mixed with *atta* (whole mill flour) is still a popular delicacy of Bengal. The stems of plant popularly known as *daantaa charchachari* made with mustard paste is another innovation and still a popular demand in every Bengali menu in present era. This dish was always enjoyed with *paantaa bhaat*, a leftover of cooked rice of previous day soaked in water. Small fish like *punti* and *mauralaa* were cooked dry by married women with mustard. To bring the variety in their innovations, various *baataa masala* (paste of different combination of spices) was also introduced out of which paste of coriander leaves and mustard seeds is very popular. *Kachushaak* (leaves of yam) and *kachurlati* (stem of yam) were cooked in mustard oil with black cumin serve as an important side dish with rice is still the front runner in kitchen of east Bengali family.

### INFLUENCE OF TAGORE'S FAMILY KITCHEN

Bengali and National Poet Rabindranath Tagore is so deeply connected like two sides of the same coin. Unless we peep in to the kitchen of first Bengali Nobel laureate Rabindranath Tagore's family, our learning will remain incomplete. Once there was a habit of creating a new dish every day in that kitchen. With other cultural practices, cooking skill was also taken into a serious note and raised to the next level. *Daal- maacher jhol- ambol* was a popular combination of the daily meal. To add sugar or sweet to any vegetarian preparation was probably first introduced by Tagore's family only. Different type of *bhaaja* (fried) was integral part of their daily meal. All these arrangements were always meant for any guest coming to visit the family. Many cooking tricks were also experimented and made us knowledgeable through that kitchen only. How to bring the flavour of onion in vegetarian dishes by soaking asafoetida in ginger juices is the great example. How to reduce the burnt flavour of any dishes by putting betel leaf is also well established by the women of Bengal. The first introduction of menu card in a Bengali feast was the contribution of women of Tagore's family only.

We also get a very evidential proof about the "*Bhoj Sabha*", in modern days banquet was also very popular in those era. Depending upon the array of dishes such as varieties of *Tarkari*, *Pitha*, *Payesh* displayed in the meal time, the skill of the female of that family was judged.

The Tagore's Kitchen also created many unique dishes as a mark of respect of different eminent Bengali personalities like *Rammohon Dolma Pulao*, *Darwakanath Phirneepulao*, *Surovi Payes* etc even to celebrate the fiftieth birth anniversary of Rabindra Nath , a sweet dish was made with cauliflower, Kheer and nuts along with many other ingredients and named as *Kobi Sambardhana Barfi* was truly amazing.

Creating dishes by using unconventional ingredients was also the hall mark of those days. *Khajur er Pulao*, *Lanka Patar Charchari*, *Rossogollar Ambol*, *Panippthal er Dalna*, *Beet er Hingi*, *Jhinga Pata Pora*, *Kochi Pui Pata pora*, *Tentul er saraswati ambol* are few glittering examples of high level of innovations and creation by the women of Bengal of those bygone days.

We just cannot deny the contribution of *Mrinalini Debi*, Rabindranath's wife at making different kinds of sweet dishes such as *paka aam er mithai* (ripe mango sweet) *Chirer Puli*, *Mankochur Jilipi* etc . It is heard that she had her own little kitchen where she experimented the art of cooking with great passion. It is also learnt that *Narkel Chirey*, *Aamshatta*, *Jhuni Rai er Jhaal Khsundi* were also the result of experiments by using unconventional ingredients including dishes made with vegetable parts that people normally throw away like *pointed gourd seeds* and *potato skin*. The great Bengali *Chachchori*, a dish made with mashed vegetables and shrimps, flavoured with chilli was made by sister in law of Rabindranath, Kadambari Debi is also reflects the contribution of Bengali women in this unique cuisine.

*Aamshotto dudhey pheli, tahatey kodoli doli,  
Shondesh makhia dia tatey  
Hapush-hupush shobdo, charidik nistobdho,  
Pipra kandia jae paate...*

— By Rabindranath Tagore

## MEANING

The Sun dried ripe mango mixed with milk and ripe banana and shondesh mashed , the sound of slushing echoes in the silence, even ants return, shedding tears into the empty plates.

These few lines are the creation of child Rabindranath to appreciate the unique combination created by Tagore's Kitchen by the females of those days and also it is proof of the richness of Bengali food and culture.

## CONTRIBUTION OF BENGALI WIDOWS

Though fish and meat was always appreciated in every Bengali family but the evolution of Bengali vegetarian food took place in this land because of the presence of widows in Bengali household. The widows wore white dress and *kanti mala* (a necklace worn by some adherents of Hinduism.), used to maintain a very high standard of cleanliness and hygiene and used to take bath at *brahma muhurta* (is a period (muhurta) one and a half hours before sunrise, traditionally the last phase or muhurta of the night and is considered an auspicious time, appropriate for worship or any other religious practice). Due to social restrictions, the widows did not consume fish, meat, onion and garlic to lead a pure fugal life. These culinary limitations of widows inadvertently contributed the rich vegetarian culture in Bengal. "*Chakka*", "*dalna*".

"ghanta", "chhachari", "chhechra", "chhechki" and "labra" are some of the treasured vegetarian dishes gifted by Bengali widows. Later many of these dishes have been adapted by including non-vegetarian ingredients like shrimp or fish heads. The upper cast Bengali widows were strictly vegetarian and due to strong believer of god, they used to cook variety of vegetarian spread for *Saalgram Shilaa*, a small stone form of lord Narayan. Their creation includes various shaak (fried leafy vegetables), neem begun (neem leaves cooked with diced aubergines), shukto (curry of different vegetables with a bitter base and no chilli), moongh dal with grated coconut, cholar dal with sliced and fried coconut, arhar dal, mochar ghonto (a dry curry with banana fruit), echorer daalnaa (raw jackfruit curry), telpata (pointed gourd cooked in mustard oil and poppy seeds), the list is endless.

### EVIDENCE FROM BENGALI LITERATURE

Ancient history is also enriched us with many information about the food and Bengali culture. It says that even the female gods were also offered with typical creations of Bengali women. Goddess Durga was always offered with *Paantaa Bhaat* (left over rice soaked in water over night) and *Kachur shaak* (yam leaves). Panta bhat is the creation of rural Bengali women which was supposed to be poor man's food and specially consumed in the breakfast time though the tradition of consuming it in the lunch time cannot be over ruled. It has many fold positive sides also. Panta bhat has some remedial use. It is considered as a "cold food" by Ayurveda traditions, while boiled rice is neutral. Hence is a preferred food for children with a fever. **It was so popular in ancient rural Bengal that we get to see its presence in Bengali literature too. Folk rhymes about the dish include:**

*"Shashuri nai nonod nai kar ba kori dar*

*Agey khai panta bhat sheshe lepi ghar",*

Meaning: "No mother-in-law, no sister-in-law, whom do I fear/ Shall first eat rice then clean the room".

### SOME POPULAR CREATIONS

Another popular creation of Bengali women called *Gota Sheddho* (whole boiled) which is still popular in Bengal and very closely attached with *Saraswati Puja*. The name is so called because none of the vegetables are cut and cooked whole together with whole grain daal without any spices, onion, garlic etc and finally drizzled with pure mustard oil to enhance the flavour. As per the tradition the Bengali women used to prepare this on the day of Saraswati Puja on Basant Panchami and it is consumed by the women of Bengali family on the very next day which was attached with another ritual called *Sheetal Shasti*. The great believe of this ritual is the day is marked as *Arandhan* (no cooking) meaning no hearth will be lit on that day. So all the other family members were also very keen to enjoy this Gota Sheddho accompanied with *Paantaa Bhaat*. Bengali women had developed different food also for Goddess Kali in their culture.. This Goddess was always offered with parboiled rice accompanied with less sophisticated fish like *boal*, *magur*, *sol* etc with *kachurshaak* and *laaughanta* with Rohu fish head. These unique creations helped the Bengali Cuisine more versatile and full of variety.

**Poush Parbon** is another very popular festival in Bengal and it is the time when we get to see different type of rice cakes are prepared in almost all the Bengali families. This festival

is named after the Bengali month Poush and it is observed on the last day of the month known as *Poush Sankranti*. The freshly harvested paddy along with *Khejurer Gur* (date palm syrup) are used to prepare various Bengali sweets along with coconut milk known as *Pitha* ( Rice Cake) and offered to Goddess Lakshmi. The creation of these enormous delicacies of Bengal is another signature production of Bengali women who were immensely blessed in both of cognitive thinking and application of culinary skills.

To make the readers aware about the royal creation of food, here are some pearls for display:

*Murgir Handi Kebab, Mutton er gravy cutlet, Aloo poda ( burnt potato mashed), Mula Siddha( Tender white radish boiled eaten with pure mustard oil and salt), Anaras Bhaja( Fried Pine apple), Mochar Chop( Made with banana fruit), Dumur er Chechchki( Dry Figs spicy), Kumro dia mugher dale r ghonto( Red pumkin and moongh dal preparation), Khoi er paromanno( Payesh made with Puffed rice not muri ) , Beson dia phool kopi bhaja, Cholar dal er malaikari, gaach cholar ghonto( Made with sprouted Bengal gram), Komola lebur kalia( Made with orange) , Begun dia kochi kuler ambol, Anaros malai Pulao and many more.*

## BENGALI PHILOSOPHY AND PURAN

Women of Bengal were very imaginative about the variety and result is many creation of community food like savouries. The women of colonial Bengal distinguished the food in four different sectors e.g. *charbya*, food which is to be chewed like rice, fish etc. *Choshya*, food which is to be sucked, liquid like ambal, tak etc. *Lehya* means food which is to be licked, like chatni and *Peya* means drinks like milk at the end of meal. The savouries created by them mainly enjoyed in the afternoon and mostly sour in taste and made with raw mango, ripe tamarind, *Chaaltaa* (elephant apple) mixed with salt and *kasundi* (traditional home made mustard sauce of Bengal), mustard oil and green chilli. History says that these ingredients were never bought from the market then but collected by women from different houses and enjoyed together including older women. **13<sup>th</sup> century Bengali verse also says that**

*“Fortunate is the man whose wife serves him on a banana leaf  
Some hot rice with ghee,  
mourala fish, fried leaf of jute plant and some hot milk.”*

These few lines clearly state that how the Bengali women used to give their best in cooking and serving to bring happiness to the family. If we trace back the story stated by Mukundaram in **Chandi mangal**, we learnt that **Phullara** prepares some dishes for one of the main protagonists, kalketu. They include boiled broken rice, lentil boiled in water with some spices and bottle gourd, burned native potato and ol (an Indian vegetable), kachu and ambal (sour soup).

This type of constant effort and experiments conducted by the women of Bengal ultimately sketched the path of modern Bengali cuisine which is so unique worldwide. Once a wife of a Bengali poet who was Hungarian lady told proudly that:

Bengalis uses so many spices in the food and adopt such innovative style of cooking that one can make a pair of old shoes edible

This remark is the testimony of the uniqueness of Bengali creations in the kitchen. I feel some times that this remark is both just and unjust. A very old and popular phrase **Randhane Draupadi**: a Draupadi for cooking is still in use in this land for those women as a mark of respect of their innovative skills in cooking in winning the heart through stomachs of many.

Another ingredient that is opium poppy seeds locally known as *posto* which was made potential of Bengali food by the female of Bengal. Soon the battle of **Palassey** got over in 1757, the British discovered the huge market of illegal opium in China and they converted the huge land of Bengal into poppy seeds cultivation. The British left enormous amounts of dried poppy seeds and the hungry farmer's wife soon utilised her culinary excellencies in poppy seeds and hence was born an entire vegetarian culinary repertoire based on poppy seeds. Soon it became very popular in almost every Bengali home. The great medicinal use is with tamarind as a cooler called *ambole*. Rich paste of poppy seeds mixed with mustard oil was eaten raw and also same was cooked with potatoes or various tubers, with fish, pointed gourd, brinjals and remained winner for all time Bengali kitchen.

## CONCLUSION

Since women were under social restrictions on those days, slowly household work and cooking have the women's forte for ages and this ultimately emerged as the maximum benefit to the evolution of Bengali cuisine. They have given birth of a parallel Bengali cuisine for themselves. Many of such dishes are now still available in old Bengali cook books because in modern days the female of Bengal have come out of the kitchen life proving their worth in other aspects of life. Also Bengali widows innovated a great range of vegetarian dishes simply because they did not have the choice eating non-vegetarian food.

The Bengali women have made the kitchen as the breeding ground of their artistry and created such amazing dishes which are still part of the research as many of them were not documented then. Only source of learning was through the keen observations, by using the presence of their mind and of course the power of imaginations which ultimately made the Bengali food so versatile, so unique and absolutely unparallel in the country and beyond.

In this documentation I have taken the initiative to bring it to the notice of the entire globe about the immense potential of the women about the culinary art of Bengal.

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<b>24</b>
<b>CHAPTER</b>

## **An Exploratory Study of Eating Behaviours Among Teenagers in Gurdaspur, Punjab**

**Dilraj Singh\***

### **ABSTRACT**

*Teenagers are full of mental and physical energy. They are in the state of body building age as their final formation of bones and process of reaching full development to adulthood is taking place. Food choice is a complex process that depends on culture and can be influenced by different factors such as personal, social, economic and emotional. Teenagers make more choices for themselves than they did as children. Moreover, since eating is a social act, social networks and family can affect their food choices even more. In addition, globalization is gradually destroying traditional foods and offering more food choice and availability. At their age they should be eating healthy food; but instead many of these teen age children develop imperfect food behaviors and these behaviors continue in their youths also. There is a need of an hour to improve upon the food habits of teenagers by studying in detail their eating behaviours which influences the eating habits of teenagers. This exploratory research work will attempt to study various such behaviors which could be further used in future to improve upon the eating habits of our teenagers.*

**Keywords:** *Restrained Eating, Eating Habits, Proactive Eating, Social Eating, Emotional Eating.*

### **INTRODUCTION**

Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood (age of majority). Adolescence is usually associated with the teenage years, but its physical, psychological or cultural expressions may begin earlier and end later. A **teenager**, or **teen**, is a young person whose age falls within the range from 13-19. They are called teenagers because their age number ends with "teen" ..... (Millian 1981 )

Basic mechanisms of eating behaviour may include social and environmental influences on and individual differences in food choice, self-regulation of eating, dieting, and information processing of food and food-related cues, developmental aspects, and many more.

In our culture, we see two main motivators for people making changes to the way they eat: Wanting to be good and wanting to look good. Foods have been labelled "good" or "bad"

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for a long time. Unfortunately, that type of black-and-white, good-or-evil labelling of food also extends to the people who eat it. If you're not eating clean, then are you dirty? Through this twisted moral lens, eating behaviour becomes about who you are, not just what you put in your mouth. The second big reason people often want to change their eating habits is to look "good." And the definition of "good" is usually driven by our society's the notion that thinness defines beauty and health..... ( Anderson, 2003)

Food-related behaviours made by individuals are influenced by a many factors and processes. These include demographic factors, family and household influences, habit and price, health considerations, ethical concerns and wider societal trends. There can be no denying that in the course of a human lifetime, the decision whether to ingest a particular item lies ultimately with the individual but the power to decide what food items are made available for the selection process, and in what form, frequently lies beyond the individual. Thus, for many humans, selection of food is subject to significant constraint for much of their lifetime, despite the apparent freedom of the individual to eat as they choose.....(Mann & Trustwell, 2008)

Like many aspects of human behaviour, food choices are influenced by both inborn and environmental factors and it's not always easy to separate them. However we can look at food preference in terms of the sensory properties of food, cognitive factors and long term factors like culture..... (Paul, Turner & Ross, 2003)

## OBJECTIVES

The objectives specifically can be underlined as follows:

- i. To establish the prominent factors influencing eating behavior among the teenagers.
- ii. To find various food habit patterns dominating the eating behavior of teenagers.

## REVIEW OF LITERATURE

Even at this lowest organizational level, the family pattern of eating may be distinctive from that of its neighbours, though both may belong to the same ethnic and religious group and occupy the same socioeconomic position. Food habits are influenced by the background and social network of the group member who becomes the K.K.P (key kitchen person) for each main meal if that person learned culinary skills in his or her own family setting, many of these will be transferred to the new household. However urbanised societies such knowledge is frequently acquired outside the home, from formal education. There is ample evidence, however that after schooling is complete, recipe repertoire is influenced by interaction with peers, within social network and by the media..... (Mann & Trustwell )

Understanding why we eat and the motivational factors driving food choices is important to addressing the epidemics of obesity, diabetes and cardiovascular disease, as food intake is a significant factor impacting the development and treatment of these disorders. Eating behaviour is a complex interplay of physiologic, psychological, social and genetic factors that influence meal timing, quantity of food intake, food preference, and food selection. Active research involving the genetics of taste, food preference, pathological eating behaviours, meal size, and meal selection is rapidly expanding our understanding of how and why we eat.....(Grim, 2011)

Knowledge of nutrition and a positive attitude towards nutrition may translate into nutritious eating practices. Just knowing that eating lots of fruits and vegetables may prevent the disease

does not mean that someone will automatically start eating more of these foods. For some people knowledge is enough to stimulate new eating behaviours, but for most people knowledge is not enough and change is difficult. Some people manage to change their eating habits, especially if they feel that the advantage outweighs the disadvantage.....(Karen & Breferre, 2004)

According to Dan De Figio (n.d) Proactive versus reactive eating.....Proactive eating means that you don't allow these external cues to affect your eating behaviour (what you choose to eat, when you eat, and how much you eat). Proactive eating decisions come from knowledge, planning, and consistent practice. Eating proactively is a skill that you must master to achieve lasting weight loss and to kick the sugar habit for good.

Eat enough during the day so that you're not starving when you get home.

Keep your kitchen stocked with healthy food instead of convenience calories.

Plan the day's food so that you don't have to think about what you're going to eat for each meal.

Put your food on a plate before you start eating and take an honest look at what's there. Do you have vegetables? Where's your protein? What are the portions like? What's this meal going to do to your insulin levels? What can you do to improve the nutrition of this gift to yourself?

While you're eating, savour the tastes and textures. Chew thoroughly. Pay attention to how your body feels so you know when you've had enough. The Japanese use the term *hara hachibu*, which means "stomach 80 percent" – in other words, stop eating when you're 80 percent full.

Stay focused on one task at a time. While you're eating, pay attention to that and only that. While you're watching a movie, focus. Pay full attention to the mail during commercials. When planning for future things, do so one at a time, using facts and strategy instead of reacting to anxiety and worry since the period of adolescence is accompanied with considerable stress due to physiological and psychological changes attitude towards diet is often very unhealthy. Boys are usually well fed in adolescence as they prefer to be tall and dwell built with strong muscles. Therefore, an adolescent boy is more receptive to form good dietary habits. Girls are often self conscious of their figure and they avoid many foods labelling them as fattening. Complexion, pimples and other marks are often associated with certain foods and their consumptions. Withdrawal attitude, a common problem of adolescents, is often taken on food. Weight control is another problem of adolescent girls and they eliminate essential nutrients in these efforts..... (Raheena, 1999)

Physical and psychosocial pressures influence adolescent eating habits. The boy fares better than girls in that his large appetite and sheer volume of good habits leads him to consume adequate nutrients but the adolescents girls are less fortunate because of her physiologic sex difference associated with fat deposits during this period and comparative lack of physical activity she may gain weight easily. 2. Social pressure and personal tensions concerning figure control will cause her to follow unwise, self-imposed crash diet for weight loss. 3. In some cases self-starvation may result in complex and far reaching eating disorders like anorexia nervosa and bulimia..... (B. Srilakshmi, 1993)

The diet plays a crucial role in promoting growth, hence the RDAs for all nutrients are high during 13-18 years of age..... During adolescence the BMR accelerates once ageing because of the growth spurt and other hormonal changes which take place. The BMR of boys is higher than that of girls because of more muscle tissue. Food habits change drastically because of peer pressure, maintain one's figure and weight, skin problems and newly found independence.....( Roday, 2015)

Ways of eating based on experiences from child hood help to make up food habits patterns. The study of these patterns can give you a new concept of your own food habits and an appreciation of the food habits of others..... the sharing of experience in the class will suggest some of the more obvious forces that operate in developing eating patterns. Such a discussion, however, cannot be expected to probe food habit formation in-depth. For a more comprehensive view of food habits and their meanings, it is necessary to examine basic contributing factors. Food habits do not spring full blown, nor do they evolve within a generation or two. They are the outcome of multiple influences of the past and present, which operates single and together. Basic influence in food habits formation includes the following:

1. Availability of food
2. Economic status of people
3. cultural backgrounds
4. family eating patterns
5. sensory reaction of food
6. educational influences
7. Motivation.

Resistance to change: Food habits are not easily altered, especially if they fall into a limited pattern. If the individual has known no other way of eating, he is particularly inflexible.

Habit modification : Food habit modification should be attempted only after careful indicates that the present diet is nutritionally inadequate, and when the bases of present habits, and the beliefs that support them, are known.....(Garg, 2006)

**Table 1.1: Types of Eating Behaviours**

1.	Uncontrolled eating	It refers to the tendency to eat more than usual due to a loss of control over intake accompanied by subjective feelings of hunger
2.	Restrained eating	Is defined as the restriction of food intake in order to control any health problems.
3.	Emotional eating	It points to the inability of a person to resist emotional cues.
4.	Social eating	It is defined as increased eating In the company of familiar ones.
5.	Proactive eating	It is enhanced eating in order to avoid the signs and symptoms of health problems.

(Endocr 2014.)

## RESEARCH METHODOLOGY

The study was conducted in two schools and one colleges of the Gurdaspur city. The study was conducted in the month of February 2018. The study was based on two sources of data.

1. Primary sources: The questionnaire was designed comprising of 20 questions pertained to various eating behaviors such as Uncontrolled eating, restrained eating, emotional eating social eating and proactive eating. The questionnaires were filled by students within the age bracket of teenagers (13-19). Only the fully filled questionnaires were accepted for data analysis. In all 177 questionnaires were used for data analyzing. Statistical analysis included frequency, averages and percentage.
2. Secondary sources: various books, research journal and website were used to collect secondary data for the research.

## DATA ANALYSIS

Likert scale: A series of individual questions that had Likert frequency response options for the respondents were used and they were analyzed as frequency, averages and percentages for various eating behaviours patterns for the respondents.

Never (1) Rarely (2) Sometimes (3) Often (4) Always (5)

**Table 1.2: Eating behaviour questions**

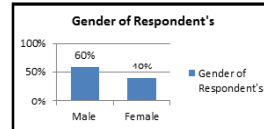
Questions	Options	Frequency (n=177)	Percentage %
<b>Restrained eating</b>			
I avoid sweets because they have high sugar content.	Never	59	33.33
	Rarely	54	30.43
	Sometimes	28	15.96
	Often	18	10.14
	Always	18	10.14
I don't take second servings even in parties.	Never	31	17.4
	Rarely	38	21.8
	Sometimes	36	20.3
	Often	18	10.1
	Always	54	30.4
It's hard for me to choose the right food whenever, I eat in canteen.	Never	31	17.4
	Rarely	38	21.8
	Sometimes	36	20.3
	Often	18	10.1
	Always	54	30.4
<b>Uncontrolled eating</b>			
I want to eat right away whenever; I see the food I like.	Never	23	13
	Rarely	46	26.1
	Sometimes	34	18.9
	Often	23	13
	Always	51	29

It's hard for me to comply with my diet during parties.	Never	36	20.3
	Rarely	36	20.3
	Sometimes	56	31.9
	Often	23	13.1
	Always	26	14.4
If I have money, I buy and eat more.	Never	34	19
	Rarely	51	29
	Sometimes	58	33
	Often	23	13
	Always	11	6
I become conscious of my diet only when I feel something bad.	Never	56	13.8
	Rarely	51	23.2
	Sometimes	26	14.49
	Often	21	11.59
	Always	33	18.84
I can't help myself but eat a lot whenever the food I like is being served.	Never	26	41.49
	Rarely	23	13.04
	Sometimes	41	23.19
	Often	46	26.09
	Always	41	23.19
<b>Emotional eating</b>			
Whenever I feel stressed, I tend to over eat.	Never	128	72.5
	Rarely	26	14.5
	Sometimes	8	4.3
	Often	5	2.9
	Always	10	5.8
Whenever I feel happy. I eat the food I like.	Never	10	5.8
	Rarely	26	14.5
	Sometimes	36	20.3
	Often	23	13
	Always	82	46.4
When I feel stressed, I lose my appetite.	Never	59	33.33
	Rarely	53	30.43
	Sometimes	19	10.14
	Often	13	7.3
	Always	33	18.8
I find eating as a stress reliever so I eat more when I have problems.	Never	98	55.1
	Rarely	18	10.14
	Sometimes	28	15.92
	Often	15	8.7
	Always	18	10.14

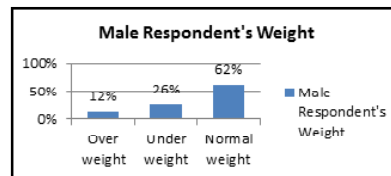
Social eating			
I lose control of my appetite whenever I eat with my friends and family.	Never	54	30.4
	Rarely	51	29
	Sometimes	23	13.1
	Often	21	11.6
	Always	28	15.9
To avoid waste I finish everything in my plate.	Never	10	5.8
	Rarely	13	7.3
	Sometimes	28	15.9
	Often	41	23.4
	Always	85	47.8
In order to be polite I don't refuse offered food.	Never	38	21.74
	Rarely	26	14.49
	Sometimes	41	23.19
	Often	26	14.49
	Always	46	26.09
I tend to eat more when I eat food with family and friends.	Never	39	21.74
	Rarely	51	28.99
	Sometimes	33	18.84
	Often	26	14.49
	Always	28	15.94
Proactive eating			
I don't want to feel the symptoms of being overweight, so I eat less.	Never	62	34.8
	Rarely	28	15.9
	Sometimes	23	13.1
	Often	26	14.5
	Always	38	21.7
I eat many times a day to avoid being under weight.	Never	78	44.9
	Rarely	33	18.8
	Sometimes	23	13.1
	Often	15	18.7
	Always	26	14.5
I immediately eat a lot whenever I feel dizzy or cold	Never	115	65.22
	Rarely	18	10.14
	Sometimes	24	13.04
	Often	10	5.8
	Always	10	5.8

**Table 1.3: Gender of Respondent's**

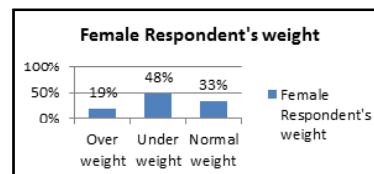
Gender	Percentage
Male	60%
Female	40%

**Table 1.4: Male Respondents weight**

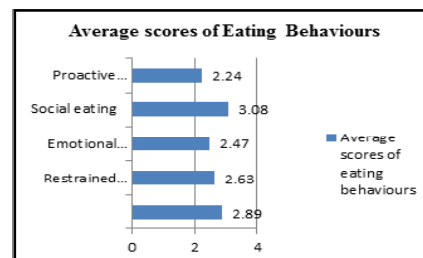
Type	Percentage
Over weight	12%
Under weight	26%
Normal weight	62%

**Table 1.5: Female Respondent's weight**

Type	Percentage
Over weight	19%
Under weight	48%
Normal weight	33%

**Table 1.7: Average Scores of Eating Behaviours**

Eating Behaviours	Averages scores
Uncontrolled eating	2.89
Restrained eating	2.63
Emotional eating	2.47
Social eating	3.08
Proactive eating	2.24



## FINDINGS

1. More number of male respondent's (62%) was found to be with normal weight than female respondents (33%). This shows the food intake of boys is more evenhanded than girls.
2. Majority of restrained eating behavior results among teenager's shows that they have no power over their eating patterns as far as the restrained eating is concerned, (never as highest response 30.43% for both avoiding sweets and restraining from second helping 33.3%)
3. Varied responses to the uncontrolled eating behavior is given by respondents for the various questions asked from them like response of always 29% given for I



- want to eat right away whenever; I see the food I like and often 26% for I can't help myself but eat a lot whenever the food I like is being served. This signifies that eating behavior patterns varies for likes and dislikes of food for teenagers.
4. Emotionally teenager's responses showed they have better control over their emotional eating patterns when it comes to make a decision for their eating behavior. Highest Responses of never 72.5% was given for eating in stress and never 33% losing appetite when in stress.
  5. Socially teenagers were found to be less affected while being in the company of friends and family whereas their personal representation controls the eating behavior as highest responses of Always 47.8 % was given for avoiding waste in plate and response of always 26.09% for not refusing the offered food in order to be polite show.
  6. Behavior of enhancing eating to avoid any health related symptoms and problems does not seems to be concern of respondents which shows they are not health conscious enough to be proactive in their eating behavior patterns . Highest responses such as never 65.22% was given for eating when feeling cold or dizzy and never 34.8% for eating less to avoid being overweight.
  7. Average scores of eating behaviors shows that social eating is most prominent factor influencing eating behavior of teenagers followed by uncontrolled tendencies of teenagers towards food intake.

## CONCLUSION

The health of all people is affected by their food intake. The amount and type of food are of significant importance. Scarcity and abundance of food are not only deciding factors which drive the food intake, food behaviour pays a vital role especially when teenagers are concerned. Understanding patterns of eating and appreciating their significance therefore provides one baseline for approaching the study of eating behaviour of teenagers. Since the food behaviours of an individual's tend to reflect those of his group, it is always helpful to study the some of the behaviour that can affect food intake. It is observed that eating behaviours are acquired, through both negative and positive factors and it is important to study these factors in order to influence and change eating behaviour of teenagers. During study socially and emotionally teenagers were found to be better placed in their eating behaviour whereas alarming low sensitivity was seen for restrained eating along with proactive eating, this issue has to be dealt with decisiveness by all possible change inducers such as parents, educational institutes, social structure and government to ensure that our teenagers are inculcating positive eating habits patterns and are better prepared for their future lives.

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## An Analytical Study on Plant Based Indigenous Food Preferences of the Tribal Community of Bihar & Jharkhand (A Key Focus on Nutritional Perspective)

Sachin Anand\* & Amol Kumar\*\*

### ABSTRACT

*The worldwide community is increasingly looking towards finding means of Sustainable nutrition, for growing population across most of the nations. Traditional food of indigenous Communities may be further explored as a sustainable means of addressing the nutritional requirements for the people of modern era. A Synchronized plan for both sustainability and judicious utilization of food items would involve community participation, working with indigenous communities and must be formally documented to increase our traditional base of knowledge about edible plants, food processing methodologies and medicinal value of indigenous animal & plant resources. This research aims to highlight the identification of indigenous foods especially of the tribal communities of Bihar & Jharkhand, (India), assessing their eating habits & a brief understanding from the nutritional perspective. The tribal community is already well aware about the indigenous food resources available in their local environment. More than 100 different types of indigenous food including a number of green leafy vegetables were identified during our research process. The tribal population is the best fitted example of indigenous population of our country having such a vastness in terms of cultural diversity, tradition and environment. There is a rich abundance of natural foods in Indian tribal environment those could possibly be used to promote food security, nutrition and health issues and challenges of our nation. Lot of indigenous foods was found to be rich sources of micronutrients like Calcium, Iron, and Vitamin A as a beta carotene and foliate. Maximum utilization of indigenous foods can be an important and Sustainable dietary diversification strategy for addressing food issues of the vicinity. The questionnaire method along with focus group study has been used in this research and the data collected were analyzed both qualitatively and quantitatively. The sample size taken was 100 respondents (only from the tribal community, having good knowledge of indigenous food and local cuisine. Looking at the diversity, indigenous food has certainly a significant role play in the development of Indian regional cuisine.*

**Keywords:** Indigenous Foods, Tribal Communities & Sustainable Nutrition.

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## INTRODUCTION

Indigenous food is defined as the food from the natural environment which became included into the cultural food patterns of a group of indigenous people. Indigenous food can be classified into plant foods, animal foods, earth elements such as salt and water. Indigenous people are defined as a group of cultural people in an ecological area that developed a successful living base from the natural resources available in that area.

Tribal community is defined as a social group existing outside of or before the development of the state. A tribal community is dependent on their land for livelihood, which is largely self-sufficient and not integrated into the national society. A tribal community is also defined as those who have followed ways of life for many generations that are largely self-sufficient and clearly different from the main stream and dominant society (Stephen Corry, 2011)

Indigenous people are those who retain knowledge of the land resources rooted in the historical continuity within the region of residence. Traditional foods are those which indigenous people have access to locally, without having to purchase them, and within traditional knowledge and the natural environment from the farming of wild harvesting (Kuhnlein et al, 2009). Hundreds of indigenous food like plants, insects and fungi worldwide are known to have food value (Boa, 2004 & Rathode, 2009), but nutrient content of many of these foods are undocumented and an assessment of the patterns of their intake is not available. Research on indigenous food can benefit efforts to protect the world's natural environment. By gaining the knowledge of plants that are useful to the indigenous people longitudinal and temporal studies can demonstrate the environmental integrity or lack of it. It is well organized that traditional foods and dietary diversity within an ecosystem can be powerful sources of nutrients and thus are better for health (Bhattacharjee et al, 2009). Various ethno botanical surveys indicate that several species of wild plants have been used for human food at some stage of human history (Grivetti and Ogle 2000; Millennium Ecosystem Assessment, 2005).

## LITERATURE REVIEW

The diversity in wild species augments the variety of family diets and may contribute to household food security (Balemie and Kebebew, 2006). However the health benefits of many these indigenous foods have been largely unexplored and research on the nutritive value of underutilized species /local varieties deserves a higher priority in nutrition research.

The tribal communities in India are a good example of indigenous populations with vast diversity in their cultures, traditions and environments. The numerous indigenous foods that exist in the Indian tribal environment reflect the rich biodiversity of India that can be potentially used to promote food security, nutrition and health. Some of these indigenous food have been analyzed and documented from different regions across India (Longvah and Deosthale 1998; Sinha and Lahra, 2007)

In addition, despite this wealth of traditional knowledge of nutritional resources in these tribal communities, challenges of geography, agricultural technology, cultural habits, lack of formal education, poor infrastructure and poverty may contribute to poor nutrition and wealth (Bhattacharjee, 2009). A high prevalence of chronic energy deficiency and under nutrition along with micronutrient deficiency among tribal populations is well documented (Mallikharjuna et al., 2010, Parimalavalli, 2012 and das and Bose, 2015). Children belonging to tribal communities are at higher risk of Iron – deficiency Anemia and Vitamin. A deficiency

disorders. In addition, in women of certain rural area and tribal communities, Zinc, Vitamin B12 and Iron constitute the principal micronutrient deficiencies (Arlappa et al 2011, Menon, 2011). Thus the present study was undertaken to explore the food environment of tribal Community especially with respect to use, nutritive value and traditional knowledge of indigenous foods .it involves listing, identification and taxonomic classification of indigenous foods, followed by nutrient composition analysis, if their nutritive values were not documented in the Indian composition tables (Gopalan et al, 1989).

## PLANT FOOD AND THE HEALTH OF INDIGENOUS PEOPLE

The health implications of the use of indigenous plant food are varied. On one side plant food contains nutrients those which are not readily found in animal foods like fiber, energy rich Carbohydrates, Vitamin C and Carotene. Diets of indigenous people would be expected to contain a reasonable amount of plants provide all these types of nutrient and plant foods were stored for seasons when they were not available for fresh from the environment . Plants foods also provided variety in texture and flavor as compared to a meat fish or grain based subsistence pattern.

Since the contact with the European many other foods have been introduced and are made available in the market for purchase .these are not good sources of nutrients usually associated with plant food -like vitamins .since the indigenous people have been replacing many of their natural plants foods with purchased food the overall nutrient quality of the diet is declining.

Another consideration in the use of plant foods by indigenous people is the potential toxic constituent contained in them .while most of the commercially marketed foods are found to contain very low levels of identified toxins, wild plants require scrutiny because toxins have been identified in some of them .indigenous people are well known for removing toxins by processing plant food. The major techniques used for detoxification are heating, leaching, fermenting, adsorption, drying, physical processing and changing the acid base ratio.

## RESEARCH GAP

This research focuses on highlighting the identification of indigenous foods by assessing their eating habits to essentially focus on the nutritional requirements of the tribal communities of Bihar & Jharkhand. The tribal communities are well aware about the indigenous food resources available in their local environment. However, the gap between actual consumption and scientific recommended consumption is huge which mainly results in malnutrition, frequent occurrence of diseases, high mortality, unbalanced growth, etc. These problems need to be addressed very quickly if we want to best utilize our demographic dividends and for all round societal development which can accelerate our economy in the longer run.

## RESEARCH METHODOLOGY

Present work was carried out on 8 wild species used by tribes of Bihar and Jharkhand region of India for estimating nutritional value. These selected species are used as edibles during emergency by tribes of Banka (Bihar) and Godda (Jharkhand) .following 8 species were selected for this purpose (table 1). Nutritional values of leaves, fruits flower seeds and barks (of tree species) of selected plants species are analyzed. Some important parameters like total sugars (Jain VK & Guruprasad KN, 1989), Protein (Lowry OH et al. 1951), Lipids (Bligh EG & Dyer WJ, 1959), and amino acid (Rajendra W, 1987) have been estimated by standard methods.

The data collected for this research was mainly from the secondary sources which were later being analyzed to attain the research based objectives. An interview methodology from local respondents mainly from the tribal community was also included as a part of the study.

### RESEARCH OBJECTIVE

- To study the major nutritional impact of preferred food yielding plants
- To highlight the indigenous plants having best nutritional supplement from scientific perspective

### STUDY PLAN

This was a Cross – sectional study conducted in states of Bihar and Jharkhand, India. In this research study mainly 2 selected districts were inhabited

1. Santhal tribal community (In the Godda district of Jharkhand)
2. Tribal community (In the Banka district of Bihar)

**BANKA, BIHAR:** Banka is one of the thirty-eight districts of Bihar state, India. The district headquarter of Banka is situated in Banka town. The district has been established on February 21, 1991. Earlier it was the richest and largest Sub-Division of the district Bhagalpur.

The district, part of Bhagalpur Division, has its headquarters at Banka town. Banka district occupies an area of 3,020 square kilometers (1,170 sq. mi), (Srivastava, Dayawanti et al, 2010) comparatively equivalent to Canada's Akimiski Island.

**Godda, Jharkhand:** Godda came into existence as 55<sup>th</sup> district of undivided Bihar on 25<sup>th</sup> May 1983 and become 18<sup>th</sup> district of Jharkhand. It was a subdivision of Santhal pargana district since 1855. In absence of basic infrastructure the Godda district is still undeveloped and it has around 2110sq.km and this district is having the height of 100.44 meters from sea level.

Geography of Godda district comprises hilly tracks plain and vast forests lands.

The eastern part from the north to south is covered with the forest whose area is approximately about 239.34 sq. Km. and is a hilly track.

**Table 1: Species Selected for Nutritional Analysis  
(Ashok K Jain & Preeti Tiwari, 2012)**

S. No	Name of The Plant (Botanical Name)	Common Name	Family	Parts Consumed
1.	<i>Achyranthes aspera</i> Linn.	Latjeera, Chirchita	Amaranthaceae	Seeds
2.	<i>Boerhavia diffusa</i> Linn.	Punarnava	Nyctaginaceae	Pods, Barks
3.	<i>Bauhinia vahlii</i> Wt. & Arn.	Mahul, Seldey	Caesalpiniaceae	Seeds
4.	<i>Cassia fistula</i> Linn.	Amaltas	Caesalpiniaceae	Flowers
5.	<i>Cassia obtusifolia</i> Linn.	Aanwar	Caesalpiniaceae	Leaves
6.	<i>Moringa oleifera</i> Lam.	Sehjana	Moringaceae	Leaves, flowers
7.	<i>Oxalis corniculata</i> Linn.	Khatti Buti	Oxalidaceae	Leaves
8.	<i>Prosopis cineraria</i> Linn.	Shami, Kshenkur	Mimosaceae	Pods, Bark

**Table 2: Total Sugar (%) in Different Parts of Selected Plant Species  
(Jain VK & Guruprasad KN,1989)**

S. No	Part of Plants	Plant Species (Botanical Name)	Crude Sugar Content (%)	SE
1.	Leaves	<i>O.corniculata</i>	12.056	±0.2
		<i>M.oleifera</i>	4.232	±0.8
		<i>C.obtusifolia</i>	4.44	±0.5
		<i>B.diffusa</i>	0.6	±0.2
2.	Bark	<i>P.cineraria</i>	0.78	±0.5
3.	Seeds	<i>B.vahllei</i>	4.79	±0.8
		<i>A.aspera</i>	1.488	±0.8
4.	Flowers	<i>M.oleifera</i>	13.232	±0.2
		<i>C.fistula</i>	8.00	±0.5
5.	Fruits	<i>P.cineraria</i>	10.944	±0.5

**Table 3: Crude Protein (%) in Different Parts of Selected Plant Species  
(Lowry OH et al. 1951)**

S. No	Part of Plants	Plant Species (Botanical Name)	Crude Protein Content (%)	SE
1.	Leaves	<i>O. corniculata</i>	22.28	±0.6
		<i>M. oleifera</i>	22.8	±0.5
		<i>C. obtusifolia</i>	20.25	±0.7
		<i>B. diffusa</i>	16.7	±0.5
2.	Bark	<i>P. cineraria</i>	7.26	±0.7
3.	Seeds	<i>B. vahllei</i>	24.21	±0.5
		<i>A. aspera</i>	21.37	±0.7
4	Flowers	<i>M. oleifera</i>	18.9	±0.7
		<i>C. fistula</i>	13.13	±0.9
5.	Fruits	<i>P. cineraria</i>	12.79	±0.5

**Table 4: Crude Lipid (%) in Different Parts of Selected Plant Species  
(Bligh EG & Dyer WJ, 1959)**

S. No	Part of Plants	Plant Species (Botanical Name)	Crude Lipid Content (%)	SE
1.	LEAVES	<i>O. corniculata</i>	23.75	±0.5
		<i>M. oleifera</i>	19.75	±0.5
		<i>C. obtusifolia</i>	23.025	±0.8
		<i>B. diffusa</i>	20.5	±0.6
2.	BARK	<i>P. cineraria</i>	10	±0.9
3.	SEEDS	<i>B. vahllei</i>	28.5	±0.7
		<i>A. aspera</i>	18.42	±0.7
4.	FLOWERS	<i>M. oleifera</i>	21.5	±0.6
		<i>C. fistula</i>	23.75	±0.7
5	FRUITS	<i>P. cineraria</i>	19.75	±0.7

**Table 5: Qualitative Estimation of Amino Acids In Different Parts of Selected Plant Species (Rajendra W, 1987)**

S. No.	Edible Parts	Plant Species (Botanical Name)	Essential Amino Acids	Non-Essential Amino Acids
1.	Leaves	<i>O.corniculata</i>	Phenylalanine, Isoleucine, Valine	Asparagine, Alanine, Serine, Ornithine, Cystine
		<i>M. oleifera</i>	Phenylalanine, Isoleucine, Leucine, Valine, Methionine, threonine, Glutamine	Asparagine, Alanine Cystein, Ornithine, Aspartate
		<i>C.obtusifolia</i>	Isoleucine, Valine	Asparagine, Serine, Ornithine, Alanine
		<i>B. diffusa</i>	Phenylalanine, Isoleucine, Valine, Methionine, Leucine	Asparagine, Aspartate, Serine, Ornithine
2.	Bark	<i>P. cineraria</i>	Phenylalanine, Isoleucine	Alanine, Proline
3.	Seeds	<i>B. vahlii</i>	Phenylalanine, Isoleucine, Valine, Histidine, Leucine	Serine, Ornithine
		<i>A. aspera</i>	Phenylalanine, Isoleucine, Valine, Glycine	Asparagine, Serine, Ornithine
4.	Flowers	<i>M. oleifera</i>	Phenylalanine, Isoleucine, Leucine, Valine, Methionine, Threonine	Alanine, Asparagine, Serine, Aspartate, Cystine, Ornithine
		<i>C. fistula</i>	Phenylalanine, Isoleucine, Valine	Alanine, Asparagine, serine, ornithine, Proline
5.	Fruits	<i>P. cineraria</i>	Phenylalanine, Isoleucine, Valine, Leucine	Serine, Ornithine, Proline

(Estimated values of nutritional compounds observed in different parts of selected plant species are presented in table 2-5)

## RESULT

With the rapid growth of modern civilization with traditional knowledge about the use of indigenous plants for various purposes among aboriginal culture is rapidly vanishing or disappearing. For maintaining this we required urgent need of ethno botanical observations to find out the secrets of nature of such rapidly disappearing primitive culture. The present work is a scientific approach regarding the nutritive value of wild food plants consumed by two tribes of Bihar and Jharkhand. Out of huge number of species plants species only 8 were selected and investigated on nutritional grounds. These plants are consumed by Bihar and Jharkhand tribes as supplementary diet during scarcity of regular or conventional food yielding plants.

As per the nutritional status of these plants, few selected species can be also recommended as food for the outer world. The main reason behind this is that the consumer who is fight



against malnutrition and food scarcity. Protein is one of the important parts of human nutrition .it is an important building blocks of bones muscles ,cartilage and blood .it not only supports growth but is also important for maintenance and repair of body tissues. The total daily protein intake is based on the growth needs and desirable weight of individual .The recommended dietary allowances (RDA) for protein is a modest 0.8 gm. per kilogram of the body weight. The major component of deposited or stored lipid in plants and animal cells are Triacylglycerols.

Among all the eight species investigated for their nutritive *Oxalis corniculata* L., consumed by Oraon tribes came up as the most nutritive one. Its leaves contain 22.28 % crude Proteins, 12.05% of total Sugar and 23.75% crude lipids .the values are enough to match Recommended Dietary allowances(Anonymous, 1980). All the nine essential amino acids are found to be present in the leaves of *Moringa oleifera* .leaves of *M. oleifera* are also good source of Beta carotene, A precursor of Vitamin A.

Seeds of *Bauhinia vahlii* often consumed by the Santhal tribe of Jharkhand are the richest source of proteins (24.21%). The lipid value of *Bauhinia Vahlia* seeds (28.5%) is also on a higher side. Further, *Bauhinia Vahlia* seeds seem to be the good source of nitrogen and the richest source of magnesium.

*Boerhaavia diffusa* is another under exploited wild species, known for its medicinal value but left untouched on nutritional grounds. It is frequently consumed by Oraon tribe. It is good source of potassium electrolyte.

*Prosopis cineraria* is a lifesaving plant species earlier reported to be consumed during severe droughts of Rajasthan. The pods are consumed by local people and tribe and leaves are used as cattle feed since ancient time. The value obtained during investigation of bark was, is not satisfactory to fulfill RDA values, which is approx. 50-100 gm /day. Crude lipid contains (10%) and crude protein content (7.26%) were observed to be the lowest among all the eight species investigated. Pods of *P.cineraria* were found more nutritive as compared to the bark.

*Achyranthus aspera* is reported to be good during severe famine and drought since ancient time. It is mentioned that seeds were consumed during emergencies and during wars in combination with other plants. The species has potential to meet the nutritional requirement of body to survive especially with limited source of food during wars, etc. potential of seeds *A.aspera* regarding their life saving properties can be established on the basis of amount of sugar, i.e. 2.37% and 1.48% of total sugar which is enough to ensure survival capacity, being immediate source of energy.

## CONCLUSION

On the basis of detailed chemical analysis and few other observations, it may be concluded that all leafy edibles, though perennial or seasonal contribute higher nutritional value. Leaves of *M.oleifera* and *O.corniculata* seem to have potential to replace other conventionally used vegetables. Protein and other nutritive content are found to be of higher concentration in wild from as compared to the cultivated ones. All the selected species that has been as our sample study are of wild in nature and are generally not being cultivated. This is the main reason of high nutritive value, but on account of their limited production these plants cannot replace conventional staple food plants however can only be used as supplement in their particular native places. There are good number of other species which do possess higher

nutritive value substances but are not sold / available in the local markets. The efforts should be made to bring and popularize these plants, as it has been done for Mushroom, which are being introduced to the farmers and local markets after being evaluated on nutritional grounds.

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# 26

## CHAPTER

### The Change in the Food Culture of Indian Cuisine

Sahib Chopra\*

#### ABSTRACT

*As the life of an Indian revolves around food and food is the most important need of the life. This research tries to find the origin of Indian cuisine and how this Indian cuisine has changed with time as the technique and recipes are not same as they were in earlier time.*

*This research paper is descriptive and analytical work which seeks to understand the reasons behind all the changes in the food culture of Indian cuisine. An intensive literature review serving as the secondary sources of data collection were used along with reaching out to families with the strong traditional lineage of food and culture that is inherited from their ancestors. During the course of this research, I came across different reasons for the changes happening in Indian cuisine and how Indian cuisine has transformed. The ancient Indian cuisine followed the concepts of Ayurveda, with Vatta, Kafha & Pitah serving the basic ideology of food preparations. With the passage of time and amalgamation of varied cultures and ethnicities owing to invasions, the kingship of several dynasties and colonization, the authentic ancient Indian cuisine blended into a variety of regional cuisines.*

*This paper not only intends to track the changes brought into Indian cuisine but also to recreate the lost authentic Indian recipes that phased out as they got transcended from one generation to another.*

*The research will help the food enthusiast to know about our ancient Indian Cuisine and also gain the knowledge about lost recipes of India.*

**Keywords:** Food Culture, Indian Cuisine, Ayurveda, cooking techniques, lost recipes

#### INTRODUCTION

Indian cuisine is famous around the world and enjoys the enviable reputation of being very unique and healthy. With the charm of its own, it has such a great variety of taste, color and aroma that those who experience it once sometimes find other foods somewhat tasteless.

India is an ancient country and was once called the 'GOLDEN SPARROW'. Several invaders like Alexander the Great, the mighty Genghis Khan and Taimoor the Lame came here to seek its riches, jewels and spices. In fact the lure of spices that are used in Indian cuisine is what brought the British, the French, the Dutch and the Portuguese to the Indian coast. Our

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country has seen the rise and fall of many dynasty and empires. Along with this they have seen the rise and fall in the cuisine culture. Subsequently, it has absorbed some of their cultures and cuisines. Because of the assimilation of these cultures and their influence, there has emerged a cuisine of unparalleled variety and taste.

For thousands of years Indian have used spices to decorate and enhance the enticing aroma of their cuisine. They use them like an artist trying to paint a beautiful picture. The painting of color and flavor in Indian cuisine is not somebody's imagination but originates from basic philosophy and thought enshrined in ancient Vedas. It clearly emphasizes that in order to stay healthy and happy one should eat food which has mix of herbs and spices. When this is followed, the result can be beyond our imagination- a colorful, fragrant, exotic and romantic fare that is not only exquisite and delicious but by far the healthiest cuisine in the world. The art of Indian cooking lies not in heavy spicing, but how delicately one uses the herbs and spices.

**Effect of Ayurveda:** The Indian cuisine has not emerged in a day it is the cuisine which started to evolve thousands of years ago. The first written record of the cuisine can be seen in the Atharava Vedas content of which date back to around 1,000 BC, where the Indian cuisine is said to revolve around the Ayurveda. According to Ayurveda a person can stay healthy only if one regulates one's diet, exercise, recreates and control sensual pleasure and is generous, just and truthful, forgiving and has a happy family life. In other words if you are unhappy and have bottled up emotions, disease emanate. Besides, there are three primary forces in our body called *Vatta, Pitta and Kapha*, translated as air, fire and water, Air means that which moves, like breathing and beating of the heart. Fire is bile which digest things including mental digestion or the ability to comprehend, *Kapha* is phlegm which holds things together. Ayurveda believes that when these three are thrown out of balance and aggravated, they manifest themselves in the body and one contracts all sort of diseases.

According to Ayurveda diseases should first be treated with food, and medication should only be given later, if needed. Hippocrates also said "Let your food be your medicine... and let your medicine be your food." Treatments using foods are based on the six tastes of food which are sweet, salty, sour, pungent, bitter and astringent. Each taste has its specific therapeutic value. The taste increases or decreases three forces of our body as the case may be. Everyone needs a certain amount of each of these six tastes depending on the individual physique. Too much of any one taste can be harmful. The sweet taste gives strength to the tissues elements and harmonizes the mind. The sour taste stimulates the digestive fire and sour food like lime and tamarind are easy on digestion and good for the heart. The salty taste stimulates the digestion and clears the channel in the body by causing sweating. Pungent taste as in onion, pepper and garlic helps digestion, improves metabolism and dilate channels of the body. Bitter food like bitter gourd, fenugreek seeds and lemon rind eliminates bacterial and viral elements, purify the blood and enhance metabolism. Potatoes, apples, betel nut leaves, and most of the green vegetables and drinks like tea have an astringent taste and heal ulcer and wound. They also act as water absorbent in the body and help in the assimilation of moisture and fat. A lack of any of these tastes in the food will aggravate the body forces and cause all sort of health problems.

**Influence from the 'Outsiders':** Indian cuisine truly offers a mind blowing variety of food today because of the influence from the past cultures of the Mughals, the Zoroastrians and the Greeks that came and merged into the local culture. The most significant in the north

include Punjab, Haryana, Kashmir, Uttar Pradesh; Delhi is from the Mughals who were the Central-Asian invaders who ruled India over 400 years. They were the connoisseurs of food and brought with them the taste of lamb, chicken, nuts and dried fruit and thus came about the wonderful *tandoori chicken, korma, biryani, pulavs, kebabs* and desserts like *Baklava*. Prior to their arrival their arrival, the food in the north and south were prepared with the belief that eating meat is not good for mental and spiritual well-being and was consumed by select group of people.

**Regional and Climatic Influence:** Each state evolved its very own cuisine influence by the climate of the region and the availability of certain raw material. The people of Rajasthan, the desert state, make up for the lack of color in their dresses as well as in their cuisine. They use plenty of red chilies and turmeric in all their dishes. Similarly in Kashmir since saffron and dry fruits grow in abundance, they lend a lot of color, distinction and delicacy of the food of this region.

Karnataka produces perhaps the best coffee, cardamoms and cashew nuts. The seacoast of Kerala is abundant in fish, shellfish and coconut especially in the summer and monsoon months. Mustard seeds and fragrant curry leaves grow in abundance here. Along their extensive waterways, you can see *green rice paddy* which is the staple food of Kerala. Taking of seafood also takes you to another region of India-*Bengal*.

If you still have not had your fill of hot and spicy food you could move on to Goa. Here you can look forward to more seafood and other fiery specialties flavored with coconut and locally grown cashew. If you decide to cook Goan food, keep a bottle of vinegar or preferably cashew vinegar called *Feni*, because it creeps into many preparations giving them distinctive taste.

The north Indian state of Punjab is an agricultural state with a very dry and hot summer, perfect weather for growing wheat and corn. It is referred to as the bread basket of India-its people have a good appetite and like to fix quick hearty meals. Their mustard greens preparation called *Sarson ka Saag* which is quite hot and delicious for the palate, is usually topped with lots of homemade butter and suitable for climate of this state. A Punjabi will consider the meal of *Sarson ka Saag and Makki ki Roti* (mustard greens and cornmeal bread) quite wholesome and delicious enough to be irreplaceable.

**Influence in Modern Day:** With the lots of culinary changes in the past the Indian cuisine has undergone a drastic change in the modern world and 100 years were the most crucial years when the Indian cuisine has gone a lot changes. As the population of the country increasing so the cultivation land is decrease on an equivalent rate which is leading to the less cultivation area and the yield of the raw material is decreasing, due to which the prices of the raw material are increasing. So, due this increase in prices the availability of all raw material has been limited to a specific group of people only therefore some of the great scholar in Indian cuisine came up with idea or the innovation in order to replace those unavailable or not readily available raw material with the easily available raw material so that the taste of the product does not change and remains the same, but there would be a slight change in the text. There is a great amount of Indian dishes that has become extinct due to different reasons. There are different theories regarding it.

## REVIEW OF LITERATURE

Aggarwal (2009); In her book titled *The Exquisite World of Indian Cuisine* stated the history of the Indian cuisine from the day of its birth and the pillar which have let the Indian cuisine stand straight for these all years. She has also mentioned few of the reasons for the change in the Indian food culture and how all invasions have left a mark over the Indian cuisine. Appardurai(1988); in his journal he takes about how India has played an important role in the cookbooks of the world. Indian not only today but also in the past has given great cuisines and recipes to the world and whole world knows that aroma, texture and fragrance they are have in the cuisine is due to the blend of Indian cuisine with cuisines of the world. But in the contemporary time India is losing its importance due to the role of modern cooking in the life of the people. As new and new cuisines are being introduced very quickly and therefore the Indian cuisine is somehow losing its importance and India cannot afford to lose its value on the international ground in the terms of cuisine. So writers focuses on the practices which has made this cuisine ancient and how it is modifying itself in order to survive with the modern cuisine. Hindu(2012); This is newspaper article which talks about how the food habits of Indians have changed due to influence of modern cuisine. And Indian cuisine is easily affected by this modern cuisine as it is the people who wanted this change and they want everything in one plate. India(2017); in his book provide a huge amount of information on the food, the food culture, recipes and cuisines of India. It covers area such as history, literature, botany, genetic and archeology and places Indian food in time and context. The country's oldest accounts in Sanskrit, Pali, Tamil and Kannada, have been drawn upon extensively as have the writing of visitors of India. Details covered include migration of food plants from the new world to India through European influence and the rapid integration into the Indian cuisine. Madhvapaty & Dasgupta(2015); in this journal author tries to relate with the change in the eating habits of Indian consumers. They try to relate why the Indian consumers want change in the hotels and the restaurant as they relate the cuisine with the modern cuisine. Modern cuisine has changed the palate of the Indian consumers and they like it the most.

Marlene (2014); In this book author tells about the eating habits of India and how these eating habits has been changing in the past and how they affected the food habits of Indians today. The effect can not only been seen on the few parts of our country but in the whole country as well as the adjacent countries has also seen these effects in the food habit. But the region which is most affected by this is the North India. Rajitha(2012); In this journal author tells about the change in the diet of Indian people in the past 40 years. This change in the diet leads to change in the culinary habits of the people thus the change in the culture of Indian cuisine. The author tries to relate it with the different sectors of people and the different age group. Rani(2016); In this book author tells about the eating habits of India and how these eating habits has been changing in the past and how they affected the food habits of Indians today. The effect can not only been seen on the few parts of our country but in the whole country as well as the adjacent countries has also seen these effects in the food habit. But the region which is most affected by this is the North India. This is the region which has seen the maximum invasions and therefore this region has the most change in the food habits.

### NEED OF THE STUDY

In the popular and especially modern India the major tourist attraction is not only the monuments of some of the undug history but it is also the its cuisine or we can say the richness in flavor can only be found in our cuisine. But culinary changes and modes of public dining are undergone rapid changes in India and have begun to reflect some of the new strands in the culture if Indian cuisine.

The present study is an attempt to examine the reasons for the change in culinary culture in the cuisine of North India in terms of what are the changes that have been already happened and what can be expected changes which might happen in the coming time and what can be reason behind them.

The study is built around the following research questions:

What are the changes that have happened in the past that have changed the culinary culture of Indian cuisine?

Why some recipes of Indian past have become Lost in the present world?

To answer these research questions, the study propose following objectives:

### OBJECTIVES

To study the reason behind the changes in Indian food culture.

To find some of the lost recipes.

### METHODOLOGY

The mentioned objectives will be achieved by following methodology:

Fulfillment of First objective: This objective was achieved with the help of secondary data available in print as well as online from credible sources and also by interviewing different people and chefs of the industry.

Fulfillment of Second objective: To achieve this objective, data was collected by visiting family of specific origin and tradition and try to learn the lost techniques and recipes.

### FINDINGS

The findings are specific to the states or the cuisine because each state or cuisine has its own history or story to share.

### GOAN CUISINE (GOA)

Portuguese was one of the most important seafaring nation of the world.

India is the biggest producer of chilies but the irony is chilies never belong to India before 1510.

Potatoes were introduced 500 years ago.

Tomatoes were introduced in 16<sup>th</sup> Century.

All the ingredients or the raw materials were introduced to Indians by Portuguese.



Portuguese were the only group that not only brought the cooking techniques or recipes with them they also brought the raw material with them which would be required for those recipes.

Goa has the oldest market known as the Mapsa Market, which is said to be more than 2000 year old, but there is no historical record for that. We can say that this market has seen all the rise or the down fall in Goan cuisine as it has seen Goan existence as well its existence with Goan Portuguese cuisine.

Portuguese brought chilies from Brazil and Chile (South America).

Before introduction of chilies in India, they used spices like *Teppal* or *Tripal* or Pepper in order to add spicy flavour to the dish.

Portuguese came to India from Cochin and they reached Goa in 1510. And they setup a factory base in Goa in order to send spices to Europe and import material from Europe. Other than spices they also exported mangoes, coconuts and sugarcane and most of these items went to South America and today South America is largest producer of sugarcane.

Before Portuguese made impact on the Goan cuisine, coconut was the main ingredient for all Goan preparation.

The first and the most important combination of Goan and Portuguese cuisine is Goan Sausage, which is also known as Chorizo as its name is derived from Iberia but authentic Chorizo, cannot be found in India.

There are basically 2 types of Sausages one is bead sausage which is also known as Roseberry sausage which is available in South Goa and other one are the long sausage which is available in North Goa.

Portuguese used sausage technique as the preservation technique for its meat product as they were the sea ferrous.

One of the most important part of Goan cuisine is Goan Tordy Vinegar which was taught to us by Portuguese, its technology was taught to us by them only.

Portuguese came to India from Konkan where Toddy is available in large quantities. Therefore as they used vinegar in their cooking process so they derived a technique of making Toddy vinegar.

Before Portuguese we used Kokum, Imly for sourness but Portuguese used vinegar for sourness.

Most of the Goan Portuguese recipes are developed by the Portuguese nuns as they tried to spread Christianity so the recipes forced the people to eat meat (preferably pork).

Portuguese technique changed in India as they started to use earthenware or clay pots where as in Portugal they used Terracotta Vessels

**Lost Recipe: Vin A'lho** pronounced as Vindalho but this is the changed Goan version the authentic is called **Carne De Vinha D'alhos** (Carne means Meat, Vinha means Wine and D'Alhos means curry) so technically it is a meat curry cooked in wine. The meat used in this is of pork It is cooked by double clay pot technique in which two clay pots are used one in which food is cooked and other of smaller size which is placed over it with water in the top pot. This is done as the upper pot with water helps to maintain moisture in the lower pot. So, that stew or water level remains the same.

### MUGHLAI CUISINE (DELHI)

Mughlai cuisine was started by the Mughal emperor. This cuisine taught us the richness in the food, how food can be made rich without cream just with the help of spices and cooking technique.

The timeline of Mughal dynasty regarding cuisine is very diversified as each ruler has its own taste for the cuisine.

**BABUR**- The first ruler of the Mughal dynasty has no interest for the cooking and taste.

**HUMAYUN**- Attracted towards cooking and therefore toured the world in search of new taste and bought Iranian Chefs (Khansamas) which gave a new change to Indian cuisine.

**AKBAR**- Has a bend toward Rajput's as he had lots of Rajput friends and married lots of Rajput princess so the Mughal kitchen started use of vegetables and lentils.

**JAHANGIR**- He spent his maximum time in Punjab and Kashmir. So, cuisine of these two states had an impact on Mughlai cuisine.

**SHAHJAHAN**- Important ruler of Mughal dynasty after which Mughlai cuisine had changed a lot which reason can be said because he shifted his capital from Agra to Delhi.

Mughlai cuisine not only gave us lots of recipe with richness they also gave their tradition of drinking refreshing drinks before meals which is called *Sharbats*. Sharbat making process started with Queen Noor Jahan as she was from Turkey and she missed the essence of roses. With the discussion with the Khansamas (cooks) and Hakims (doctors) the process extracting the Ark (essence from flower) and mixing with sugar to form Sharbat which came to known as *Sharbat-e-Labir* (which is a part of *Noor Jahani Cuisine*)

**Lost Recipes: Mutan Jan** one of the most important recipe of Mughal era. This is a recipe of sweet chicken pulao. There was tradition in Mughal time of sending this dish with the bride to her husband home as the token of love and gratitude from in-laws. Also, **Shahjahani Angoori Kofte**, is one of the rich recipe of Mughal era which is completely lost as there no written record of this recipe and the recipe would not easily found and recipe we are able to find, we cannot say that it is authentic it is close to authentic. Another significant inclusion in Mughlai lost recipe is **Dhonye Wale Kache Keeme Ke Kebab**. This is basically smoked minced meat recipe. This dish is made on the Eid al-Adha and has a most important significance as these are the kebabs in which smoke is given before cooking in raw meat, whereas smoke is given after cooking the dish.

### PARSI CUISINE (UDVADA)

Parsi's community traveled from Iran to India as they were not able to fit in the environment of Iran and Being Sea ferrous. They decided to travel from Iran to India.

They finally docked on the ports of southern Gujrat as asked for pilgrimage from the king (Yadav Rana).

The king refused to give them pilgrim saying that their population is high and they can't accommodate them. This was done by showing a glass of milk to them.

They mixed sugar in the glass of milk and said that see we already got mixed in the community. From there the Parsi's cuisine got mixed with the cuisine of Gujrat and they also stated using sugar in their most of the dishes.

As they were given pilgrimage on a condition that they would accept all their tradition and customs.

Bakery was introduced in India by Parsi community. They brought the baking techniques from Iran and introduced the process of baking to Indians.

Macrons, baked breads, cookies and biscuits were first introduced by Parsi community.

**Lost Recipes: Bhujela Bhing** (*Bhujela* means baking and *Bhing* is fish). Baking technique in Parsi is called Bhujela and Fish they prefer is called is Pala Hilsa. The Parsi's ovens at home are brick ovens with brick boundary and bed of coal at the bottom and another bed of coal over the top of the food item. **Edda Pak** is a dessert made up of eggs is also another lost recipe. This was made during the time of winter as in order to provide warmth to the body as earlier warmth during winter was mostly taken from the food items we eat. People used to eat food which is high in calories during winter as the body need to work more in order to digest and therefore body produce more heat. An addition to this list is **Umbrio** which is a pot cooked chicken and a vegetable also Umbrio is cooking technique is cooking upside down. The earthen pot is placed upside down and cooked in pit fire, this technique is the oldest pressure or we can say is the fastest pressure cooking technique.

### NIZAMI OR NAWABI CUISINE (HYDERABAD)

The city of Hyderabad was found by Qutub Shahi Dynasty 400 years ago.

Hyderabad was ruled by the Kings and Queens but during the British rule, Princely concept got disappeared and Nizami rule of tradition came into existence.

Mir Kabrudin was the first Nizam of Hyderabad. There is a story behind how he became the Nizam i.e. once he was called over lunch by saint and he served him Kulcha or fermented breads, and he liked the bread so much that he ate all seven of them. The saint got happy and blessed him that he would become the Nizam of Hyderabad and including him seven of his generation would rule Hyderabad.

Nizams respected the food a lot that even their royal flag have the inscribing of food on it. Royal flag/Yellow Color flag with Kulcha or fermented bread in the center.

People have a confusion that hyderabadi cuisine is same as that of Mughlai cuisine but there is lot of difference in between them.

Hyderabadi cuisine started when Qutub Shahi became the first sultan he brought chefs from Iran and the chef mixed the irani food with local telangana cuisine. This all happened around 1518, whereas the Mughal dynasty was formed around 1526-1530, so both the dynasties have a difference of 8-10 years.

Later when Nizam culture begin they had good relations with the Britishers so the Qutub Shahi hyderabadi cuisine started to get mixed with British food which gave birth to the present Nawabi cuisine.

Later after the third Nizam the cuisine also started to have Persian influence.

In Nizami cuisine cooking is considered as art. As painting needs time to make, that's how food is also cooked with that passion so it takes time to be prepared.

**Lost Recipes: Aash** (Aab which means water and *Shorba*), a lamb soup and can be said to be medieval Persian Irani recipe as in Persian aash means soup (But has no written record

of how old it is). The total time of process for this recipe is 8 hours. There is a reason for add baghaar seven times is that flavor of the soup remains the same throughout the extraction process. There are special 6 facts of the AASH. Another one is, **Kursi Mayane** an egg stuffed with mutton mince. Kursi Mayane is considered to be the recipe of time of Mehboob Ali Pasha who was the 6<sup>th</sup> Nizam of Hyderabad during the time of 1860's or 1870's. This is because it is said that Mehboob Ali had given complete freedom to his Khansamas for creativity.

## CONCLUSION

On this journey to explore the Indian cuisine from its beginning started with lots of questions in my mind regarding how to start the journey to find the lost culture and tradition of Indian cuisine.

In a country like India with such a large diversification of cultures and country which also does not have a written record for the origin of the cuisine. It is just stated in Veda's that the food habits and tradition started around 3000 or 4000 years ago. Even Atharava Veda which clearly mentions that the food should revolve around the basic concepts of Ayurveda. India was considered as the "Bird of Gold" not only in the case of jewels but also for the spices it grows. And this is how the trader or kings from other countries tried to move to India. So, India became a land to bear the most invasion and the only country to see the rise and fall for many dynasties.

As it is said the soil absorbs everything which falls on it even the dead and decay matters becomes fossils because the soil preserves everything this is with the rise and fall of dynasties the soil of India absorbed everything which stepped on it, whether it was culture, food habits or tradition and most thing absorbed by the soil was the food habits or their techniques or their recipes. So, we can say that the invaders has not only taken things from us but also given a lot to us.

But as the time passed these techniques or culture of food habits got lost in the sand of time, without even leaving and evidence. The India has all the secrets buried inside them and we need the right to tool to find out the techniques. As on this journey of this research I got to know that there many reasons for the change in the food culture of India. They are:

**Recipes:** most of the recipes didn't had written record of how the dish is to be made they were basically passed down from one generation to the other but as the interest of the generations started to change they stopped listening to their adults regarding the recipes and this is how the recipes lost in the tornado of time.

**Ingredients:** Many of the ingredients which were used to make a specific recipes are lost or are not readily available or are too expensive for general public to buy therefore they started to find substitute for the ingredients and this how the face of the recipes got changes.

**Time:** Time in now a days plays an important role as the life of the people of running too fast and don't have full day or much time to make specific dishes and any of the old recipes take a lot of time to make like 6 hours or a day. So, the young generation don't have much time so they changed their recipes or stopped making those recipes and they got fade with time.

This journey of finding the lost recipes is never ending as much as we dug the sand of time we would be able to find more recipes and techniques.

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<b>27</b>
<b>CHAPTER</b>

## **An Analysis on the Influence of Paan in Indian Food and Culture**

**Dr. Anshumali Pandey\***

### **ABSTRACT**

*The World Health Organization adopted a major policy change in accepting that most developing nations would have to make use of more traditional medical practices for primary health care. Piper betel L. belongs to family Piperaceae commonly known as Pan. It is extensively grown in Southeast Asian countries in general and India in Particular. Its oil may be used as an industrial raw material for manufacturing medicines, perfumes, mouth fresheners, tonics, food additives etc. The Paan leaves are nutritive and contain anti carcinogens showing promise for manufacturing of a blood cancer drug. The present review aims to compile medicinal values of Piper betel and its influences on Indian Food Heritage, Culture and other Social & Religious activities generated through the research activity using modern scientific approaches and innovative scientific tools.*

**Keywords:** Paan, Betel Leaf, Tradition, Food, Economy, Health.

### **PRELUDE TO THIS RESEARCH WORK**

Demand for Banarasi *Paan* : Residing at Varanasi and not recognising the popularity of Banarasi *paan* is hardly possible since the omnipresence of the commodity manifests not only in Varanasi's streets but also in daily news. On February 22, 2015 the Varanasi edition of Times of India reports:

"Not only Prime Minister Narendra Modi and Bollywood actor Amitabh Bachchan, but also the famous '*Banarasi paan*' stole the show at the pre-wedding ceremony of SP supremo Mulayam Singh Yadav's grandnephew Tej Pratap in Saifai on Saturday. More than 60,000 '*bidas*' of Banarasi *paan* were delivered in the first round which fell short in a few hours only and an urgent order was placed for immediate supply of another round from Varanasi. "We received information that the stock of *paan* had finished by 2pm and more was demanded," said Rajendra Chaurasia, the owner of famous Keshav Tambool Bhandar, who had also supplied *paan* in the wedding ceremony of chief minister Akhilesh Yadav. [...] A team member Yatindra Charasia informed Rajendra that the entire stock of *paan* was consumed by the invitees, and additional quantity is required urgently. Rajendra diverted a consignment of 5000 bidas of

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pa[a]n [...]. The fresh stock of *paan* was carried to Saifai from Lucknow with some guests through a plane.” (Singh 2015).

(Rajendra Chaurasia’s *paan* stall at Lanka Crossing, in Varanasi, is said to be the city’s most successful shop, delivering the best quality. According to information provided by Chaurasia residents more than 100 workers were hired for a shift exceeding 20 hours to comply with the demand of freshly prepared *bidas* for the celebrities.)

## INTRODUCTION

### FUNDAMENTALS OF PAAN

The deep green heart-shaped leaves of betel vine are popularly known as *Paan* in India. It is also known as Nagaballi, Nagurvel, Saptaseera, Sompatra, Tamalapaku, Tambul, Tambuli, Vaksha Patra, Vettilai, Voojangalata in different parts of the country (CSIR, 1969; Guha and Jain, 1997).

The scientific name of betel vine is *Piper betel* L. It belongs to the family *Piperaceae*, i.e. the Black Pepper family (Gunther, 1952). The vine is dioecious (male and female plants are different), shade loving perennial root climber. There are about 100 varieties of betel vine in the world, of which about 40 are found in India and 30 in West Bengal (Guha, 1997; Maity, 1989; Samanta, 1994). The most probable place of origin of betel vine is Malaysia (Chattopadhyay and Maity, 1967). In spite of its alienness, the plant is much more popular in India than in any another country of the world since the antiquity. This would be evident from the numerous citations laid down in the ancient literature, particularly the Indian scriptures. In these citations, significance of the leaves has been explained in relation to every sphere of human life including social, cultural, religious and even day-to-day life, which is very much relevant even these days. For example, a well-prepared betel quid is still regarded as an excellent mouth freshener and mild vitalizer routinely served on the social, cultural and religious occasions like marriage, *Puja* (religious festivals), *Sraddha* ceremony (religious function).

### HISTORICAL REFERENCES OF PAAN

The use of this evergreen perennial plant has been referred to in ancient texts like *Astanga Hridayam*, *Charaka* and *Sushruta Samhita* (Ayurvedic text books written by *Vagbhata*). This leaf has acquired an esteemed position in the human society since the dawn of human civilizations. The reference of this wonderful leaf has been made in the most ancient historical book of Sri Lanka “*Mahawamsa*” written in *Palli* and in the great epic of India, *Shrimad Bhagavatam*, where it is mentioned that Lord Krishna had chewed *paan* a combination of betel leaves along with areca nut. This leaf is believed to have originated in central and eastern Malaysia but has gradually spread throughout tropical Asia and later in Madagascar and east Africa. Towards the 13th century, European traveller Marco polo recorded, betel chewing among kings and nobles in India. Over the period, revenue distribution systems were introduced to support *pan* expenses of the royalty.<sup>2</sup>

French traveller nickel manager referred to Mughal emperor Shah Jahan allocating the revenue of Surat for meeting the *paan* expenses of his daughter. Ahom monarchy, who ruled Assam until the 19th century, created a band of specialized servants for preparing *paan* for kings and their visitors.

### IMPORTANCE OF PAAN IN INDIAN CULTURE

A combination of betel leaves, areca nut, Calcium Hydroxide and catechu, called “*kattha*” in Hindi is known as “betel quid” or plan and is routinely served in social, cultural and religious functions like marriages, religious festivals, etc. the basic reason behind its use in these ceremonies is that, apart from acting as an excellent mouth freshener and betel quid helps in the digestion to keep us active after food.

The following are the importance placed on *Paan* leaves in *Maithili* culture specifically:

- The motif of *Paan* Leaves is considered auspicious and *Madhubani* Paintings use this motif to increase the auspiciousness of the mural. [Along with other things like *Makhaan* Leaves, Bamboo plants, Lotus Flowers etc.]
- *Paan* is a common offering to Gods during a *Bhog*.
- It is believed that *Paan* Leaves and *Makhaana* [the popcorn of the kernels] is a food found in the Heavens. Hence on *Lakshmi Puja* [*Sharad Poornima: Kojagra Festival*.] *Paan* and *Makhaana* are given and exchanged.
- On *Bhatri-Dwitiya* [second day after *Diwali*, also called *Yama Dwitiya*, *Bhai Dooj*] the sister placed *Paan* Leaves on the brothers hands and performs the ritual of washing it while reciting a prayer for his long life.
- A customary *Paan* is offered to guests after the end of every *Bhoj* [feast]. This is usually the *Saadaa Paan* with cardamom pods in it to freshen the breath.

### Nutritional composition of fresh betel leaf \*:

1 Water 85-90%	2 Protein 3-3.5%	3 Fat 0.4-1.0%
4 Minerals 2.3-3.3%	5 Fibre 2.3%	6 Chlorophyll 0.01-0.25%
7 Carbohydrate 0.5-6.10%	8 Nicotinic acid 0.63-0.89 mg/100g	9 Vitamin C 0.005-0.01%
10 Vitamin A 1.9-2.9 mg/100g	11 Thiamine 10-70 µg/100g	12 Riboflavin 1.9-30 µg/100g
13 Tannin 0.1-1.3%	14 Nitrogen 2.0-7.0%	15 Phosphorus 0.05-0.6%
16 Potassium 1.1-4.6%	17 Calcium 0.2-0.5%	18 Iron 0.005-0.007%
19 Iodine 3.4 µg/100g	20 Essential Oil 0.08 - 0.2%	21 Energy 44 kcal/100 g

\*Source: © Kamla-Raj 2006 J. Hum. Ecol., 19(2): 87-93 (2006) Betel Leaf: The Neglected Green Gold of India P. Guha.

### TRADITIONAL USES OF PAAN

The use of betel leaf can be traced as far back as two thousand years. Betel leaves help to heal the following illnesses. Such as...

**Headache:** Betel leaf is a popular home remedy for headache. The betel leaf has analgesic and cooling properties. It can be applied with beneficial results over the painful area to relieve intense headache.

**Scanty or Obstructed Urination:** Betel leaf juice is credited with diuretic properties. Its juice, mixed with dilute milk and sweetened slightly, helps in easing urination.

**Weakness of Nerves:** Betel leaves play a vital role in the treatment of nervous pains, nervous exhaustion and debility. The juice of a few betel leaves, with a teaspoon of honey, will serve as a good tonic. A teaspoon of this can be taken twice a day.



**Sore Throat:** Betel leaf is an excellent household remedy in the treatment of cough and sore throat. Local application of the leaves is effective in treating sore throat. The crushed fruit or berry should be mixed with honey and taken to relieve irritating cough.

**Respiratory Disorders:** Betel leaves are useful in pulmonary affection in childhood and old age. The leaves, soaked in mustard oil and warmed, may be applied to the chest to relieve cough and difficulty in breathing.

**Constipation:** In the case of constipation in children, a suppository made of the stalk of betel leaf dipped in castor oil can be introduced in the rectum. This instantly relieves constipation.

**Problem of Breast milk secretion:** The application of leaves smeared with oil is said to promote secretion of milk when applied on the breasts during lactation.

**Inflammation:** Applied locally, betel leaves are beneficial in the treatment of inflammation such as arthritis and orchitis that is inflammation of the testes.

**Wounds:** Betel leaves can be used to heal wounds. The juice of a few leaves should be extracted and applied on the wound. Then a betel leaf should be wrapped over and bandaged. The wound will heal up with a single application within 2 days.

**Boils:** Betel leaf is also an effective remedy for boils. A leaf is gently warmed till it gets softened, and is then coated with a layer of castor oil. The oiled leaf is spread over the inflamed part. This leaf has to be replaced, every few hours. After a few applications, the boil will rupture draining all the purulent matter. The application can be made at night and removed in the morning.

## METHOD OF PAAN CULTIVATION

*Paan* cultivation is a specialised type of agriculture and since the betel plant is a creeper, it needs a compatible tree or a long pole for support. High ground and especially fertile soil are best for betel cultivation and growth. The usual cultivation period starts from the month of May and the cultivation can be continued till August, initially taking up the plantation at the beginning of monsoon. At a distance of about 12.5 cm from the supporting tree or pole, the soil is dug well to a depth of about 15-20 cm for plantation of the betel vine. Tools like spade and *dao* (local knife) are used for this purpose. The betel vine is cut in about a half metre containing three nodes for the propagation of the crop and usually the cutting is selected from a healthy vines that are three years or older. These cut betel creeper is then placed in the dug holes. Two nodes of the cut betel creeper falls usually underground and a node above ground. Selection criteria for supporting tree for shade and climbing purpose for betel leaf may be a single species or a mixed tree species but with a minimum bole of 10-15 cm and that stands upright with proper canopy. Some tree species that were utilised for the support of the betel plant are, *Albizia spp.*, *Artocarpus heterophyllus*, *Dysoxylum spp.*, *Ficus heterophyllus*, *Mangifera sylvatica*, *Parkia timoriana*, etc. Proper shade and irrigation are maintained for the successful cultivation of this crop.

Weeding is done about 2-3 times annually. Betel vine is a fast growing plant. Within a period of two month, it grows to an average height of about 45 cm. The leaves of the plant become ready for plucking after one and half year of planting, reaching to a height of about 2 m and the creeper remains productive for several years from the date of planting. Harvest operation:

Harvest is carried out mostly in the month of June, July and August. Due to enough rainfall received during these months, the production of betel leaf is highest as compared to other months when no management strategies are carried out. Plucking of betel leaves is done manually (hand picking) and by using simple instruments such as a knife, baskets and ladders. The harvest of betel leaves carried out year round and plucking is possible every day if production is good being carried out at early hours of the day. A single plant is usually harvested about four or five times a month even during the off seasons, i.e., November to May. A skilled worker can pluck a minimum of about 3,600 leaves a day. When leaves of betel are on emergent trees, the tribe were able to make their harvest possible by the use of their local made ladder.

**Storage :** Freshly plucked leaves are stored in simple storage baskets made out of bamboo. Plucked leaves are then re-stored under room temperature for a period of about 4 days. This plucked leaves are sprinkled with water time to time to keep the leaves fresh and is then made ready for sale.

### THE CANCER CONTROVERSY ON BETEL LEAVES

In spite of the nutritive, stimulating and refreshing properties, excessive consumption of betel leaves like any other edible items may also prove to be harmful particularly to the teeth. Such harmful effects are exerted by the additional ingredients consumed along with the leaves for making the quid more palatable and attractive. These include in particular, the tobacco or allied products, which really call for a word of caution. This is because the tobacco based quids may cause dental caries, alveolaris, oral sepsis, palpitation, neurosis and even oral cancer (CSIR, 1969) but the non-tobacco based quids are not known for sure to cause any such calamity particularly at a non-addictive level of consumption.

However, there is no denial of the fact that the leaves may contain a good amount (15 mg/g) of *Safrole* (Chen et al., 1999; Sharma et al., 1996), a carcinogen, but it is quickly metabolized in human body into dihydroxychavicol and eugenol, which are excreted along with urine (Chang et al., 2002a). The betel leaves are also reported to possess antioxidant activity besides antimutagenic and anticarcinogenic properties particularly against the tobacco carcinogens (Chang et al., 2002b; Padma et al., 1989a, Padma et al., 1989b; Wu et al., 2004) due to the presence of ingredients like hydroxychavicol (Amonkar et al., 1989) and chlorogenic acid (TNN, 2004) in it. The latter compound is also reported to kill the cancerous cells without affecting the normal cells unlike the common cancer drugs and relevant therapeutic means.

Therefore, possibility of manufacturing of a new blood cancer drug from it cannot be ruled out. In fact, some scientists from the Indian Institute of Chemical Biology, Kolkata have applied for a patent for the drug. If successful, the drug would also fetch substantial amount of foreign exchange to the country and highlight the significance of betel leaf to a further extent (TNN, 2004). Contrary to the above, there are a few reports, which indicate that chewing betel leaves may independently produce carcinogenic effects (Chen et al., 1999; Merchant et al., 2000).

However, the evidences are inadequate and do not match with the traditional history of betel leaf chewing in India. Interestingly, it is also claimed that the inflorescence of betel vine contains carcinogens whereas the leaves possess anticarcinogenic agents. This practically indicates that parts of the same plant contain carcinogenic and anticarcinogenic substances (Wu et al., 2004).

In view of the above controversial claims, it becomes imperative to carry out conclusive biochemical and genetic investigations together with clinical trials and demographic studies before imposing such a horrifying malignant property on betel leaf.

Two excellent reports, one from Dr. P Gupta of IIT Kharagpur (*J. Human Ecology* 2006,19, 87-93) and the more recent one from Nikhil Kumar and others from Lucknow (*Current Science*, 2010,99,922-932), offer excellent summaries of the cultivation, chemical and medicinal aspects of this green gold of Asia.

And the sheer variety! The pale Banarasi, the green Magadi, Kerala's Tirur, Kumbakonam light, pungent Mysore, non- pungent Ambadi, Hinjili cut of Orissa, special ones from Dhaka, the list goes on.

Songs in movies are written about the *paan* (*Khaliyike Paan Banaraswala Khul Jaye Band Akhal ka Taala*, and *Paan Khaye Saiyan Hamaro, Saavali suratiya Honth Laal Laal*). *Paan* culture rose to its elegant heights in the courts of Lucknow Nawabs, with special area nut cutters, handcrafted silver boxes called Paadaans. It was at once an aphrodisiac, attention getter and status settler.

But what then gave *Paan* the bad name? Besides the disgusting habit of spitting wherever, and the abuse and addition, early (Western) literature up to the mid-1980s suggested that the betel quid causes oral cancer.

It was left to the work of Dr. S.V. Bhide and others at the cancer Institute, Bombay, to show that it is not the leaf, but some contents of the areca nut (notably safrole), and of course the tobacco which are the culprits.

## CONCLUSION

The betel leaves really as a cheap, natural and easily available appetizer, digestive, mild stimulant, aphrodisiac and refreshing mastication. Still, so much work is required with the betel leaf to investigate the mechanism of actions with other therapeutic activities. This adequately justifies its nomenclature as the "Green Gold of India". The present level of revenue generated by the crop may be increased by many folds if appropriate post-harvest technologies are made available to the betel leaf growers and traders. Therefore, a well-coordinated effort by the farmers, traders, scientists, technologists, extension workers, physicians, administrators and policy makers is required to be initiated to boost up the national economy as well as the national employment generation through proper exploitation of this green gold.

## METHODOLOGY

Secondary data was obtained from various research works done on related but exclusive topics based on Betel Leaf. Verification of data and information was done from State of Forest Report, Forest Survey of India 2005. Ministry of Environment and Forests, Dehradun. Value addition was done by the help of market survey done in *Paan* users in Lucknow and Varanasi. For the present work questionnaire was developed incorporating the information required to discover the likes and various uses of *Paan* in the Indian families and individual users. During the survey locals were interacted and their *paan* shops were visited to recognise and understand the detailed process involved in the traditional method of making different varieties of *Paan*.

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# **SECTION V MARKETING & MODERN TRENDS**

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# 28

## CHAPTER

### **Evolving Trends in Equipment Used by Luxury Hotel & Restaurant Kitchens of India: A Special Study of NCR**

Amol Kumar\* & Gaurav Dhaka\*\*

#### **ABSTRACT**

*In this modern era of continuous development, the science and technology is getting advanced day by day. Modernization brings convenience & comfort in our way of life; however, it also effects the natural & social environment. This research is conducted to find out the evolving trends in modern day's equipment used by the luxury hotel & restaurant kitchens of India. The equipment most frequently used in our daily household kitchens in terms of complexity, usability, capacity handling, scale of operations, process implemented in sync with the equipment and other variables taken into consideration when those are being compared with the equipment of luxury kitchens are somewhat different. In a nut shell, former kinds of equipment are very easy to handle (from ergonomics point of view) in comparison with the modern day's equipment used in luxury hotel & fine dining restaurant kitchens. Professionally standardisation has a vital meaning in the industry. Purchasing of equipment at professional level has also a vital meaning; from revenue control perspective as well as from the maintenance point of view as maintaining those equipment itself is a bit daunting task. Purchasing the best modern equipment doesn't resolve the problem, we need to ensure that how durable the new equipment would be and what are their manufacturing company's policies, for providing the after sale services to maintaining those equipment.*

*The objectives of this research are:*

- *To understand the usage and benefits of traditional equipment vis-à-vis the modern days equipment used by chefs of the luxury Indian Hotel and Restaurant Kitchens*
- *To identify the key challenges for evolution of equipment from futuristic prospective.*

*For conducting this research the sample size taken is 15 kitchens (of 5 Star luxury hotels & Fine Dining Restaurants) of National Capital Region(NCR) and the respondents are 30 in numbers and will be mainly the Executive Chef, Sous Chef/Chef-De-Partie.*

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*The data collected here has been analyzed by using SPSS and Microsoft Excel. The outcome of this study is based on analyzing the data both qualitatively and quantitatively.*

**Keywords:** Modernization, Equipment, Kitchens, Evolving trends, & Luxury Kitchens.

## INTRODUCTION

Kitchens play a very important role in the human life and its history is very interesting. Now a day's people are using modern kitchen equipment for preservation and cooking of food. However we should remember the fact that traditional kitchens are the base for the current day modern kitchens.

Cooking takes its evolution when man had discovered fire and over a period of time geographic location, life style, needs, habits etc... had a lot of impact in evolution of various cooking methods and equipment says (Reagan, 2015).

This gave a boost for continuous modernization of various kitchen equipment to make cooking easier and more efficient. Industrial revolution has given rise to more efficient and modern kitchen equipment since people had lesser time to cook and were busy focusing on career advancement says (Vidiem, 2016).

Many parts of India were still using traditional equipment like fuel stoves, mud utensils, and manual kitchen equipment like the wet grinder even after many years of industrial revolution. These methods are inefficient, harmful and un-hygienic (Vidiem, 2016).

In recent years, LPG gas stoves are being used even in remote areas. Kitchens have taken the shape of most beautiful, efficient, comfortable and customized spaces in homes thus making people's life easier. Electricity has led to the innovation and development of modern kitchen equipment said (Adlakha, 2017).

Based on *Ayurveda*, Indian cuisine is one of the healthiest cuisines in the world since it offers a nutritious diet by bringing together various dishes and flavours. *"Cookery is an art and a science. For example, Idli is one of the best meals created, based on science,"* said Chef Arora. He further added that, usage of chemicals in cooking should be avoided since it has adverse effects on health and interferes with the science behind the food said by (Rathod, 2016).

*Ayurveda* where "Ayur" means Life and "Veda" means studies says that *"you are what you eat"*. Basic style of cooking in India takes its origin from ayurveda as early as the Indus valley civilization. It lays a old-age relation between cuisine and culture, pantry and people.

## LITERATURE REVIEW

Materials/Equipment and cooking style determines the taste and texture of food and hence plays an important role. Selection of equipment is vital to bring in more efficiency in cooking but simultaneously we should recognize the classical taste and nutritional benefits that we get by using traditional equipment.

Here are some types of metals used as Indian cooking utensils. For example:

### Copper

Copper has good thermal conductivity. Copper utensils are durable, attractive and heavier. These require careful cleaning to remove harmful tarnish compounds, and are not suitable



for acidic foods. Copper pots are lined with tin to prevent discoloration or altering the taste of food. Periodic restoration of tin lining and protection from overheating is required (Rensselaer et. al. 1919).

### **Iron**

Iron is more prone to rust and creates problems when cooking at high temperatures. However they are strong, reliable and easy to clean. Cast iron utensils are less subjected to rust if they are just washed with detergent and water followed by wiping with a cloth. This allows the utensil to form a layer of material that prevents further deterioration. In addition to this if an iron vessel is alone used for cooking with fat and oil as medium, corrosion can be lessened by non usage of water in cooking, and allowing it to dry immediately after washing said by (Thompson, 1969).

### **Stainless Steel**

Stainless steel is widely used in the manufacturing of kitchen utensils. Stainless steel is not prone to rust when used for cooking and easy to maintain.

### **Earthenware and Enamelware**

Earthenware utensils are fragile in nature and change according to the temperature while cooking and glazing since it contains harmful lead. Enamelware utensils need to be careful handled and cannot be used for strong alkalis. They are durable, easy to maintain and are unaffected by acidic foods. Earthenware finds its best use in slow and even cooking. They can also be used as “cook and serve” utensils thus reducing the effort of using two separate utensils (Rensselaer et. al. 1919).

### **Aluminium**

James Frank Breazeale in 1918 opined that aluminium “is without doubt the best material for kitchen utensils”, noting that it is “as far superior to enamelled ware as enamelled ware is to the old-time iron or tin”. He mentions that tin and enamelled utensils have to be replaced with aluminium. He qualified his recommendation for replacing worn out tin or enamelled utensils with aluminium ones by noting that “old-fashioned black iron frying pans and muffin rings, polished on the inside or worn smooth by long usage, are, however, superior to aluminium ones” (Breazeale, 1918).

Aluminium’s is advantageous because of its good thermal conductivity, non-reaction with food at low and high temperatures, low toxicity and non-discoloration of food. The disadvantages include easy discoloration and reaction to alkaline soaps while cleaning (Vargel, 2004)

### **Clay**

A great feature of non-enamelled ceramics is that clay does not come into a reaction with food, does not contain toxic substances, and it is safe for food use because it does not give off toxic substances when heated.

The clay utensils for preparing food can also be used in electric ovens, microwaves and stoves; we can also place them in fireplaces. It is not advised to put the clay utensil in the 220-250 temperature ovens directly, because it will break. It also is not recommended to place the clay pot over an open fire. Clay utensils do not like sharp change in temperature. The dishes prepared in clay pots come to be particularly juicy and soft – this is due to the

clay's porous surface. Due to this porous nature of the surface the clay utensils inhale aroma and grease. The coffee made in clay coffee boilers is very aromatic, but such pots need special care. It is not advised to scrub the pots with metal scrubs, it is better to pour soda water in the pot and let it stay there and afterwards to wash the pot with warm water. The clay utensils must be kept in a dry place, so that they will not get damp.

Here we explore & compare those traditional kitchen equipment which have been used by the modern equipment around the Indian luxury hotel and restaurant kitchens (Kate Morin, 2015)

### Comparison of Cookware Equipment

**Table 2.1**

S.No	Equipment	Benefits	Limitations
1.	Cast Iron	<ul style="list-style-type: none"> <li>Extremely versatile</li> <li>Durable and inexpensive</li> <li>Naturally non-stick if seasoned properly.</li> <li>Safe for stovetop, oven, broiler, grill, and direct fire.</li> <li>Good for searing, stove recipes, baking, roasting, and frying</li> </ul>	<ul style="list-style-type: none"> <li>Its heavy</li> <li>Doesn't heat very evenly</li> <li>Reactive</li> <li>Can rust, chip, and crack easily if it is not properly cared.</li> </ul>
2.	Stainless Steel	<ul style="list-style-type: none"> <li>Non-reactive, Durable</li> <li>Less expensive</li> <li>Safe for Stove, oven, broiler.</li> <li>Good for Searing, sautéing, braising, and making sauces.</li> </ul>	<ul style="list-style-type: none"> <li>Poor heat conductivity relative to other materials unless reinforced with aluminium or copper</li> <li>It can be expensive especially with copper core.</li> </ul>
3.	Aluminium	<ul style="list-style-type: none"> <li>Excellent thermal conductivity</li> <li>Lightweight and affordable</li> <li>Scratch-resistant and strong</li> <li>A better heat conductor than stainless steel.</li> <li>Safe for Stovetop, oven.</li> <li>Good for preparation of eggs, fish, searing, sautéing.</li> </ul>	<ul style="list-style-type: none"> <li>Slightly unsuitable for sweet baked goods, as dark-colored metals can cause over browning if not watched closely.</li> </ul>
4	Copper	<ul style="list-style-type: none"> <li>Safe for Stovetop, oven, broiler.</li> <li>Good for Copper pots and pan.</li> <li>Can be used for most jobs</li> <li>Good for boiling, steaming, sautéing, or braising.</li> <li>Best heat conductor.</li> <li>Heats food evenly and adjusts to temperature changes quickly</li> <li>Does not require much pre-heating.</li> </ul>	<ul style="list-style-type: none"> <li>Very expensive;</li> <li>Does not work on induction cook tops</li> <li>High maintenance</li> </ul>

Source: Author.

## Comparison of Roasting Equipment

Table 2.2

S. No.	Equipment	Benefits	Limitations
1	Charcoal Tandoor	<ul style="list-style-type: none"> <li>• It's hotter.</li> <li>• Temperatures reach up to 500°-700°.</li> <li>• Gives perfect crispy, caramelized exterior and better smoky flavour.</li> <li>• Easy to set up anywhere since they are portable</li> <li>• Cost effective</li> </ul>	<ul style="list-style-type: none"> <li>• It's dirty with too much ash.</li> <li>• It requires gloves or tongs.</li> <li>• Takes longer than gas grill. But only by 15-20 minutes of warm-up time.</li> <li>• Harder to control the temperature.</li> </ul>
2	Gas Tandoor	<ul style="list-style-type: none"> <li>• Convenient and fast heating.</li> <li>• Easy temperature control.</li> <li>• Cleaner.</li> <li>• Easy maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Not hot enough. Most gas grills can only get to 450°, not hot enough to give your red meat that beautiful, caramelized sear.</li> <li>• Unreliable thermometer.</li> <li>• More expensive to purchase and repair.</li> <li>• More flare-ups.</li> <li>• More hazardous than charcoal grills.</li> <li>• No Smoky flavour</li> </ul>

Source: Author.

India's traditional cooking utensils are not different from others. A Huge variety of such utensils reflects the country's immense scope in eating habits that have developed by its long culture and the environment. Cooking utensils are comes out from necessity and a requirement to our environment. We make them with what is available where we are living, and also the foods of our environment allow us. Moreover, many of these utensils were expensive and not affordable by the majority of F&B outlet owners. "The "labour-saving" devices didn't necessarily save labour, either" says (Breazeale, 1918). The origin of many good utensils materials allows "modern" cooking, on a stove or range rather than at floor level with a fireside, they also operated to raise expectations of what families would eat. So when food was become easier to prepare, then chefs at the same time were expected to cook more complex and harder-to-prepare meals on a regular basis. So the labour-saving effect tool was cancelled out by the increased labour required for what came to be expected as the culinary norm (Ved, 2015)

Although in present time people grow more aware of the dangers of modern cookware like stainless steel pots made with nickel and chromium are leeching BPA (Bisphenol A) plastics in high temperature, leaking into foods which is injurious to health and could be the cause of cancer. Traditional materials like copper, iron, stone and clay are making a comeback into Indian kitchens and addressing this growing demand are a range of brands specializing in heirloom cookware. Bangalore based NamuKini's two-month-old online store, happyhealthyme.com, has a range of cast iron and khansa (bronze) kitchenware. "There's a lot that revolves around food in Indian culture, and these metals have a story to tell. Not only do they make your meal look beautiful, they have an Ayurvedic, therapeutic advantage," says Kini, who switched from non-stick to metal a few years ago, in her effort to get healthy.

However, she advises people to check a vessel's authenticity. "Many online shopping sites sell cast iron kitchenware with Teflon coating, and many aren't aware of that," says Kini (Adlakha, 2017).

Moreover modern kitchen has become a necessity for commercial kitchens. modern equipment like automatic cooking tops, broiler, a combo oven, an industrial salamander, meat slicer, hand blenders, beaters, grinders, food processors, etc.. are gradually replacing traditional method of cooking. The exposure of chefs to international food service operations causes a high demand for modern kitchen equipment says (Sharma, 2014).

However the market of Indian food retailers are still growing in terms of using modern equipment and attaining government permits for running commercial kitchen outlets. For example in established markets food service operators could not get the license to operate until they installed a dishwasher in their kitchens. The food service market of India is very much unstructured, "cleaning utensils manually is still a norm" (Sharma, 2014).

In such cases, acknowledging them about kitchen equipment hygiene and safety is very necessary. It is also important to understand for chefs that modern equipment from a well-known company provides value for money even after the high purchasing cost then the locally manufactured equipment. The local manufactured equipment would have the less purchasing cost but they takes high maintenance and running cost for longer period of usage.

"A major change of modernisation in food preparation had started in urban hotel kitchens about two decades ago" says food historian Pushpesh Pant. The Delhi and Ranikhet expert said that nowadays cooking in hotel kitchens are not essentially a full meal cook preparation by themselves. Although they use to assembling semi cooked food to prepare. For example ready to eat Dosa batter that is very easy to prepare by just plonked on a hot griddle (Ved, 2015).

Similarly a change is take place in one of the traditional kitchen equipment "Khisni" an old fashioned coconut scrapper used for grate the coconut in to thick shredded pieces, which has now replaced by a manual machine for providing fuss-free and equally thin shredded coconut snow. Cooking food in a central kitchen of hotel is less likely to prepare now because of the demand supply. Chefs nowadays looked for systematic way of work flow by using modern equipment and machine which help them to prepare hard cook meals in just in time.

One of the changes in traditional kitchen equipment is with "mortar and pestle or SilBatta" which has been replaced by noisy "food processors". It helps Chefs to churn smooth pastes, chutney, and "crushing masalas". Moreover "Makhan Phirni" was used to be an essential tool for smoothing curd granules and other mixing of liquids. Today beaters and blenders are used to whisk "Chaas", beat eggs and cake batter (Ved, 2015).

Since earlier times, wood always is a popular option for choosing it as a cooking tool, such as spoons and spatulas. In modern day also a lot of people would like to choose wood over other options, because of classic look and practical reasons. There are many advantages by taking wood as kitchen tools compared to stainless steel or plastic. Such as wooden tools not make any scratch on cookware because of their gentle nature they won't finish off your non-stick coating and adds no scratch on steel pots or cast Iron as compare to metal ones. Another reason is that wood don't conduct heat even if you leave in a hot pot for a long time otherwise with metal tools you will be end up with burned hand. Another plus point

of wooden tools is that it is non-reactive with any food and does not leach any chemical unlike other metals when in contact with acidic food. Wood tools durability is very high if it takes proper care of them, they are hard to break and they won't melt. Moreover research indicates that the wood have natural germ- killing properties (Amazon, 2015).

Wooden kitchen tools have some limitation also that they are harder to clean than stainless steel or plastic cooking tools. Some food particles could stick to porous surface of the wood. Also wood will expands in longer contact of water or moisture. Wooden spoons also get stained if we using in soups and sauces.

## **RESEARCH METHODOLOGY**

### **Research Gap and Problem**

These days modernization in kitchen equipment has become a reality for using it in any commercial kitchens due to vivid factors such as high standardization in the demand of food items; increase in load of capacity planning, variety reduction, value analysis, managing risks pertaining to kitchen operations, etc

There is a wide gap between selecting the right kitchen equipment those required for different cooking styles. There is a need for knowing the impact of various factors which lead to the equipment selection. Also the futuristic chefs of luxury kitchens must know the evolving trends of equipment so that one can gear and plan oneself.

### **Research Objectives**

In order to carry out this focused research the following specific objectives are set:

- The Preferred equipment material from usability point of view in luxury Indian Kitchens
- The key challenges and parameters involved in the evolution of the equipment used in luxury kitchens

This research is specifically focused by analyzing the data collected from professionals of luxury hotel and fine dining restaurants (mainly chefs) through the survey method with the help of questionnaire, personal interview.

### **Sample Size**

The research design used for this study is co-relational with qualitative as well as quantitative design. The locale of the study is Delhi NCR region, India. A sample size 30 culinary professionals including Executive Chef, Sous Chef, and Chef-D-Partie, of the luxury hotels/ fine dining restaurant kitchens were taken. Purposing sampling technique was used for collection of data. Experience brackets considered for the study were 3to5 yrs., 5to 7 yrs. and 7 to 10 yrs.& over. The preference range for the study has been taken from precision marketing technique. Structured interview was conducted with culinary experts on individual and telephonic way of interviewing at Radisson Blue Dwarka sector 13 New Delhi, ITC Welcome group Dwarka Sector- 10, Whistling Duck fine dine restaurant at GK-2 New Delhi, Western Delhi house Indian restaurant in GK-1 New Delhi. In total 30 professionals were approached with questions pertaining to the objectives of our study. The survey method (through questionnaire), Focus study, Group Discussion and telephone interview were conducted to collect the data. The data collected was analyzed and compiled with percentage, mean and deviation by using Microsoft excel and SPSS method.

The analysis was finally done both qualitatively and quantitatively, to get the finer results in this research.

#### DATA ANALYSIS & INTERPRETATION

**Table 4.1: Type of Kitchen**

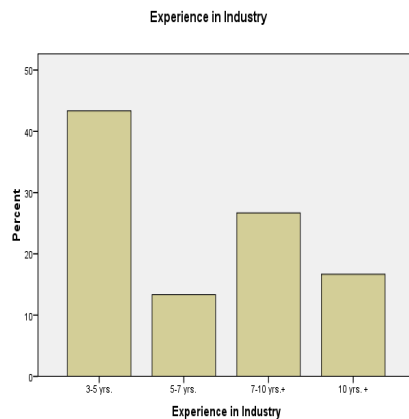
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hotel	10	27.0	33.3	33.3
	Restaurant	20	54.1	66.7	100.0
	Total	30	81.1	100.0	
Missing	System	7	18.9		
Total		37	100.0		

Respondents were asked about the type of kitchen used by them. Two categories were mentioned in the responses i.e. Hotel and Restaurant. 54 % respondents are using advanced kitchen equipment in restaurant and 27% are using basic equipment. The demand for advanced kitchen equipment is more in restaurants than hotels.

**Table 4.2: Respondents Position in Kitchen**

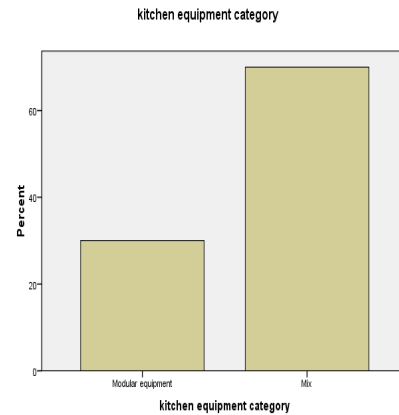
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive Chef	4	10.8	13.3	13.3
	Sous Chef	9	24.3	30.0	43.3
	Chef De Partie	17	45.9	56.7	100.0
	Total	30	81.1	100.0	
Missing	System	7	18.9		
Total		37	100.0		

Researchers have checked about the current position of the respondents in the organization. 10.8% Executive Chefs, 24.3% Sous Chef and 45.9% Chef De Partie (CDP) have participated in this study. 46 % respondents of this study are not involved in the decision making process of the organization. But these people influence the decision maker while planning for purchase of new kitchen equipment.



**Graph 1**

Researchers also have taken responses about responded experiences in the industry. 35.1% respondents have experience between 3 to 5 years, 10.5% have experience between 5 to 7 years, 21.6% respondents have experience between 7 to 10 years and 13.5% respondents have experience more than 10 years.



**Graph 2**

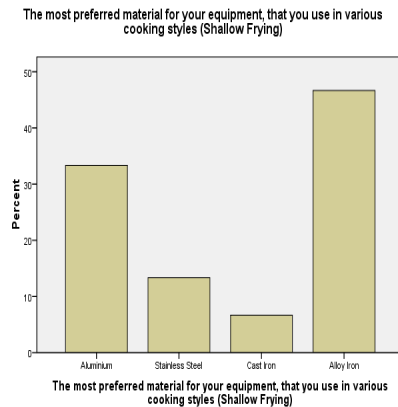
Respondents were asked about the Kitchen Equipment Category they are using in their kitchen. 24.3% respondents are using Modular Equipment and 56.8% respondents are using mix category of kitchen equipment. This represents that all traditional kitchen equipment have not yet rooted out from the kitchen. Not all kitchens are modernized to new updated equipment.

**Table: 4.3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	17	45.9	56.7	56.7
	NO	13	35.1	43.3	100.0
	Total	30	81.1	100.0	
Missing	System	7	18.9		
Total		37	100.0		

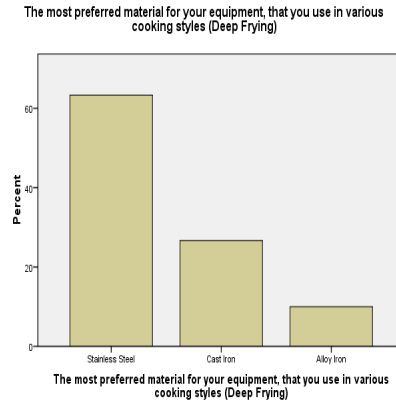
Out of total respondents, 45.9 % respondents are qualified and 35.1% respondents are not qualified. This represents that, sector have equal representation of qualified and non-qualified staff at decision making level.

Respondents were asked to reply about the preferred material used in making kitchen equipments for different cooking methods.



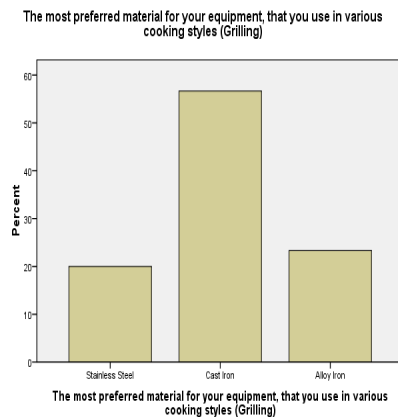
Graph 3

**Shallow Frying** – Out of the total responses, majority of them prefer using alloy iron based kitchen equipment, then comes the usage of aluminium made equipment, stainless steel has a moderate preference level and least preferred material is cast iron based equipment.



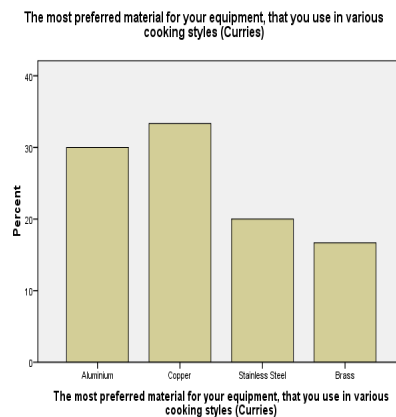
Graph 4

**Deep Frying**- 51.4 % respondents prefer to have Stainless Steel, 21.6 % prefer to have Cast Iron, and 8.1 % prefer to have Alloy Iron as equipment material to be used for food frying kitchen equipment.



Graph 5

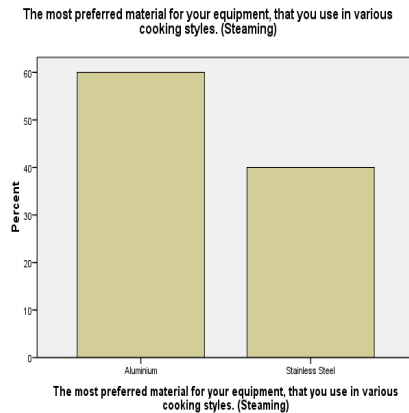
**Grilling** – 16.2 % respondents prefer to have Stainless Steel, 45.9 % prefer to have Cast Iron, and 18.9 % prefer to have Alloy Iron as equipment material to be used for food grilling kitchen equipment.



Graph 6

**Making Curries** – 24.3 % respondents prefer aluminium material, 27 % respondents prefer Copper, and 16.2 % respondents prefer Stainless Steel and 13.5 % respondents prefer Brass to be used for manufacturing kitchen equipment for Curry making equipment.

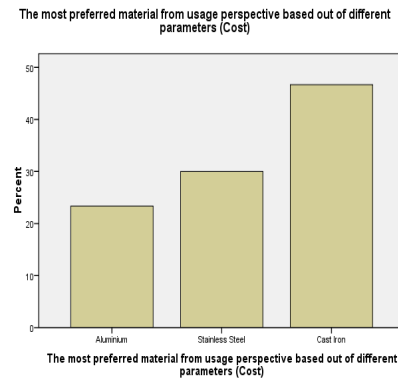




Graph 7

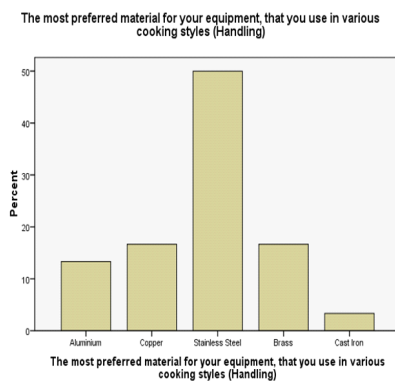
**Steaming** – 18 % respondents prefer aluminium material and 32.4 % respondents prefer Stainless Steel to be used for manufacturing kitchen equipment for food steaming.

Researchers have analyzed about other variable for the preferred material for kitchen equipment.



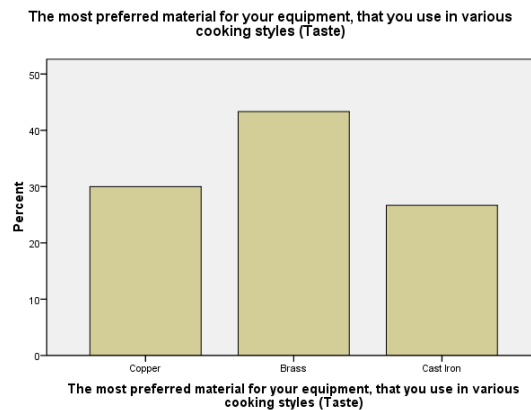
Graph 8

**Cost** – 18.9 % respondents prefer aluminium material and 24.3 % respondents prefer Stainless, and 37.8% respondents prefer Cast Iron will be cost effective for manufacturing kitchen equipment.



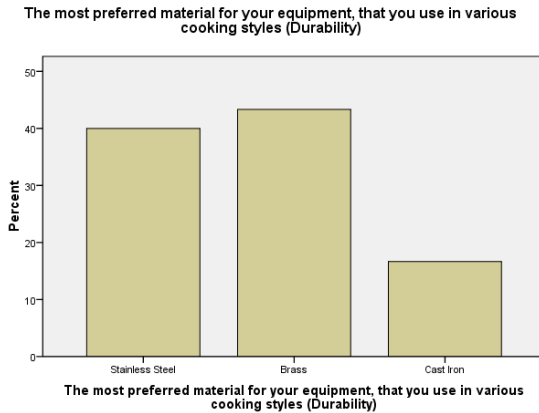
Graph 9

**Handling** – 10.8 % respondents prefer aluminium material and 40.5 % respondents prefer Stainless, 13.5 % respondents prefer Brass and 2.7 % respondents prefer Cast Iron as flexibility in handling for kitchen equipment.



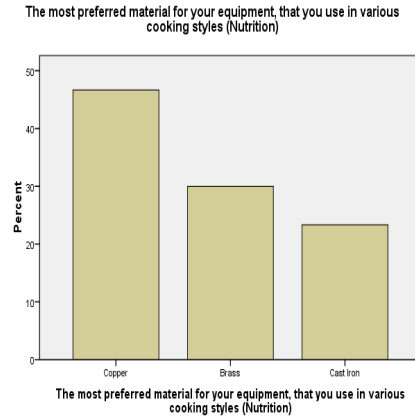
Graph 10

**Taste** – 24.3 % respondents think aluminium material of equipment contribute to taste of the dish. 35.1 % respondents think brass material of equipment contributes to taste of the dish. 21.6 % respondents think Cast Iron material of equipment contributes to taste of the dish.



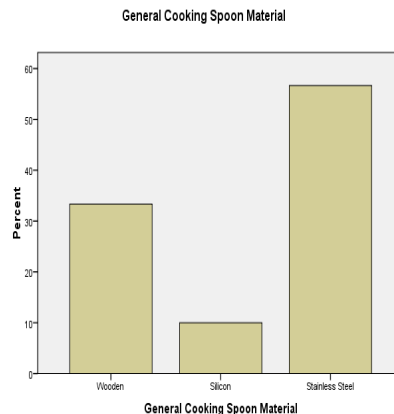
Graph 11

**Durability** – 32.4 % respondents think stainless steel is durable. 35.1 % respondents think brass material is durable. 13.5 % respondents think that Cast Iron is durable.



Graph 12

**Nutrition** – 37.8% respondents think that copper contribute to the nutrition of the preparation. 24.3 % respondents think that brass contribute to the nutrition of the preparation. 18.9 % respondents think that Cast Iron contribute to the nutrition of the preparation



Graph 13

**Cooking Spoon Material** – 27% respondents prefer wooden spoon, 8.1% respondents prefer silicon spoon and 45.9 % prefer stainless steel spoon.

## CONCLUSION

To be able to focus on the preferred equipment material from usability point of view in luxury Indian Kitchens & the key challenges and parameters involved in the evolution of the equipment used in luxury kitchens, focus on customer needs and to translate those needs

into both tangible and non-tangible offerings must look for ways, methods, processes and designs that will imbibe an integrated or a holistic approach.

The preference in terms of usability of material of equipment varies as per the method of cooking implied such as for “Shallow frying cooking”, kitchen professionals mostly prefer cast iron (non-stick), for “deep frying cooking” they mostly like to have stain less steel material equipment. Similarly the preferred material for “grilling” is the cast Iron; also for choosing “curries preparation vessels” they prefer equipment made with copper material. The most preferable material for the “steaming” purpose is aluminium. Likewise the preference goes for a mixed reaction towards using both traditional as well as modular equipment for Indian Herbs and Spices crushing, making chutneys and paste. The results were quite soothing in terms of preserving our culinary heritage since majority of the chef’s opted the traditional way for Crushing spices using mortar and also recommended that any innovation would incorporate the basic soul of traditional equipment. Although for making pastes (for varied reasons) they normally prefer food processor over the traditional way for their convenience.

This study provides an insight to the futuristic evolutionary concern which is essentially required for the modernisation of Indian culinary and gastronomy equipment. The key finding about chef’s preference towards the base of kitchen equipment in recent times goes for both modular as well as traditional. The key challenges and parameters involved in the evolution of the equipment used in luxury kitchens are: ease of material handling, supply demand of purchasing modern equipment, cost factor in terms of procurement, time management factor, maintenance factor and safety and hygiene factor. In this study respondents during the interview have recommended different parameters for opting any equipment such for example for the ease of material handling equipment made by “stainless steel” is highest in preference order. The cost factor for purchasing the modern “Cast Iron” made equipment are relatively low as compared to traditional materials being used in making the kitchen equipment. Also the preference in term of durability and shelf life of the equipment, “Stainless Steel” made equipment are the most preferred ones. When it comes to the taste factor, using modern equipment material made with stainless steel is least and kitchen professionals still preferred equipment made by brass, copper and other such traditional materials.

## **MANAGERIAL IMPLICATIONS**

- This study would surely help the chefs of any luxury Indian Hotel and fine dining Restaurant Kitchens to understand the usage and benefits of traditional equipment vis-à-vis the modern days equipment. It would also facilitate their understandings towards gauging the essential key challenges required for evolution of traditional equipment from futuristic prospective.
- Indian luxury hotel and fine dining restaurant kitchen professionals may further explore the technical aspect of developing traditional Indian Culinary equipment. The combination of the traditional values and innovation must be the key principle in order to meet the above mentioned key challenges.

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## Promoting Indian Cuisine through Facebook to International Tourists

Dr. Sherry Abraham\* & Dr. T. Anantha Krishnan\*\*

### ABSTRACT

*This paper explores how Facebook may be leveraged to popularize Indian cuisine amongst international tourists. The objective is to use Indian cuisine as one of the key factors that bring in more numbers of international tourist footfalls. Currently research on tourist perceptions about Indian cuisine reveals that they consider it to be excessively spicy, oily and prepared under unhygienic conditions and hence unpalatable. Such misconceptions are particularly prevalent amongst those who are unaware of Indian cuisine, its diversity, ingredients and methods of preparation. A qualitative methodological approach was adopted in this paper using both secondary and primary data. The secondary data identified the key dimensions of marketing using a social media platform like Facebook including creating awareness, eliminating misconceptions, facilitating trust, stimulating curiosity, building reputation, engagement and positive word of mouth. These dimensions were then explored in relation to promoting Indian food online. Some of the key findings were that Facebook offers an efficient way of identifying potential international tourists who could be interested in Indian cuisine and hosts a number of features that can be used to target a large target group online, engage and communicate with them. These features and the mechanisms to leverage them to attract more numbers of international tourists to Indian cuisine are explained.*

**Keywords:** Facebook, Social Media, Indian Cuisine, International Tourists, Misconceptions

### INTRODUCTION

To further stimulate foreign tourist footfalls into India, there is an urgent need to develop other sectors of tourism such as culinary tourism. Currently tourists visit India mainly for its historical, religious and cultural offerings. Indian cuisine rarely becomes the key reasons why tourists visit India. Findings made by researchers such as Duttagupta (2013), Buettner (2014), Rao et al., (2016) suggest that tourists are unaware of the diversity and variety that exists in Indian cuisine. They have misconceptions about Indian food that it is too oily or too spicy and therefore unhealthy and unpalatable. They have concerns about the method

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of preparation of Indian food and how hygienic it is. Few tourists are willing to experiment with Indian food. Nor is there any evidence that tourists actively promote Indian food in their respective countries through positive word of mouth. This research takes the view that Indian food can significantly augment tourist experiences in the country, positively impact their overall satisfaction levels and serve as an alternative window through which tourists experience Indian culture. Indian food can thus become a key motivator for tourists to visit the country.

However, for this to happen Indian cuisine must be suitably marketed abroad. This research explores how Facebook may be leveraged to market Indian food to tourists abroad. Since 2011, Facebook has become the most popular social networking tool with about 750 million members globally (Statista, 2018). Insofar as marketers explore tools that will help them to target as large a target audience as possible, the use of Facebook is justified. Facebook is an internet enabled, social networking platform that facilitates interpersonal interactions through chats, video calls, posts, photo / video uploads, gaming, fan pages, online communities etc. How these various tools can be leveraged to promote Indian food amongst foreign audiences needs to be explored.

**Aim:** To analyse how Facebook can be used to promote Indian food amongst foreigners

### OBJECTIVES

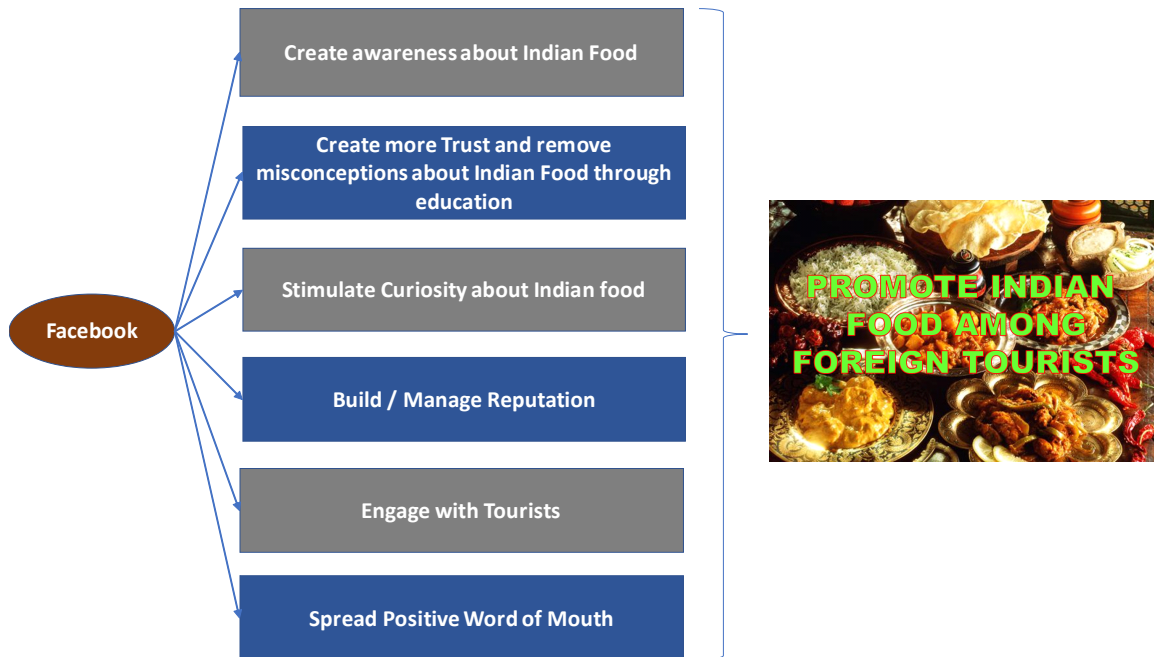
- To explore the various features on Facebook that are popular with users
- To analyse which features can be used to promote Indian food to foreigners
- To examine how particular features can be leveraged to promote Indian food amongst foreigners

### LITERATURE REVIEW

According to Ryan (2011) marketing is that business activity whose objectives are to (i) attract, (ii) convert and (iii) retain customers. Shih (2009) added to this by pointing out that online marketing tools must be leveraged to create brand awareness. This is so that people become more aware of a particular brand associated with a product genre. Kirkpatrick (2010) observed that online media can be used to educate customers about a product, its features, benefits and how it creates value for them. Marketing media must be leveraged to build brand loyalty (Treadaway and Smith, 2014). Brand loyalty results in repeat customers further enabling the growth of the business. Zarella (2011) opines that the most important function of social media marketing is customer engagement which refers to the processes by which customers are attracted to a particular brand in preference to other competitor brands. Closely tied up with the concept of customer engagement is building customer relationships and customer service where customers stay loyal to a brand / product over a longer period of time because of the excellent service they receive from the firm. Another important objective of online marketing is reputation management where the perception about a brand can be enhanced and even changed (Arora and Singer, 2016). Other objectives of marketing include growing market share, launching new products, targeting new customers, entering new markets and improving internal communications.

There are several implications arising from these findings. Facebook must be leveraged to (i) create awareness about Indian food, (ii) disseminate knowledge and information about

Indian cuisine, (iii) remove mistrust, misinformation and misconceptions, (iv) engage and interact with tourists to build curiosity about Indian cuisine, (v) redress apprehensions and fears about quality and hygiene, (vii) promote risk taking behaviour (viii) encourage spreading positive word of mouth about Indian cuisine and (ix) enhance overall satisfaction levels with actual culinary experiences as much as possible. Based on these implications, the conceptual model indicated in figure 2.1 was developed.



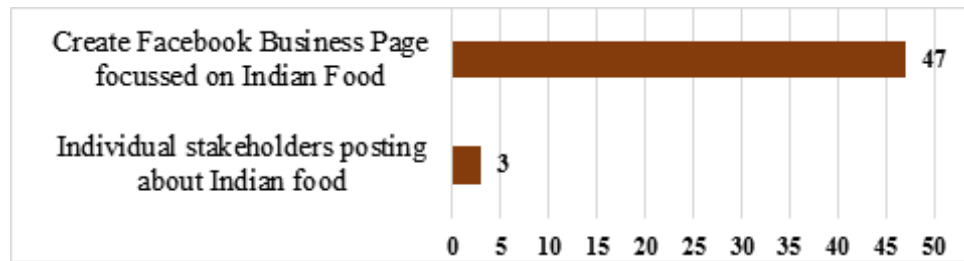
**Figure 2.1: Using Facebook to Promote Indian Food Amongst Foreign Tourists (Author)**

## METHODOLOGY

A qualitative methodology was followed in this paper using both primary and secondary data. The secondary data was used to identify the objectives of a marketing strategy and to apply these objectives to Facebook and develop the conceptual model indicated in figure 2.1. The primary data collection instrument was an online questionnaire sent to a sample respondent set of at latest 50 marketing persons specialized in Facebook marketing. Their responses on how Facebook can be used to promote the culinary heritage of India were examined and used to provide recommendations on how Facebook can be used to promote Indian cuisine abroad.

## ANALYSIS

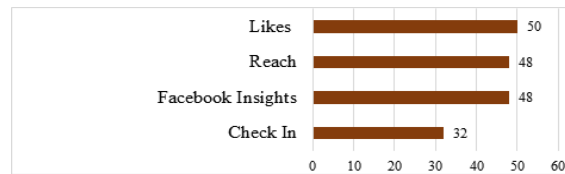
Respondents were asked as to how they believe Indian food can establish presence on Facebook. Only 3 of the 50 respondents stated that the best way for this was for individual hotels or persons to create picture posts and videos on Indian food as indicated in figure 4.1.



**Figure 4.1. Establish Presence on Facebook**

The remaining 47 respondents indicated it was mandatory for the Indian Tourism Board to invest and create a dedicated Facebook Business Page focussed on Indian food which could then be used for a whole host of tourist targeting activities. They recommend calling the page by an evocative name. Some of the suggestions include using words like ‘delicious, scrumptious, enticing, healthy, unique’ in the words used to form names such as “Scrumptious India on a Plate’ & ‘Eat Indian, Eat Healthy’.

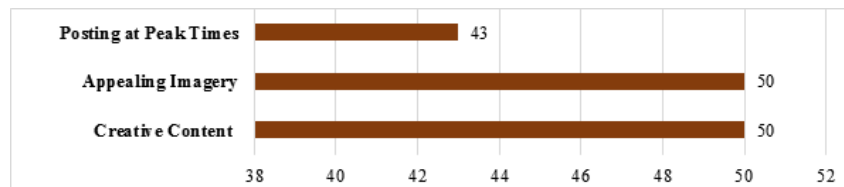
The respondents also indicated that another most important step is to identify potential tourists who are most likely to visit India. They point out that running brand awareness and promotional programs focussed on these potential tourists would be more effective rather than running the programs to random participants.



**Figure 4.2. Identifying Potential Tourists**

All the respondents indicated that a simple analysis of the number of likes that the page gets can help identify persons interested in Indian food. The ‘likes’ tool of Facebook provides information about people including their demographics, age and location enabling selective targeting and posting. The Facebook Insights and Check In tools will help determine the days and times where people access the page the most and what content they like. The ‘Reach’ Option helps identify how many people are talking about India / Indian food through online posts, picture shares and referrals. Respondent 18 stated that Facebook enables easy and quick identification of a target group of persons who could potentially be interested in India / Indian food and that this is the core group which can be used to target more numbers of persons on Facebook. The respondents were asked as to what would be the best way to engage with potential international tourists and their responses are summarized in figure 4.3.

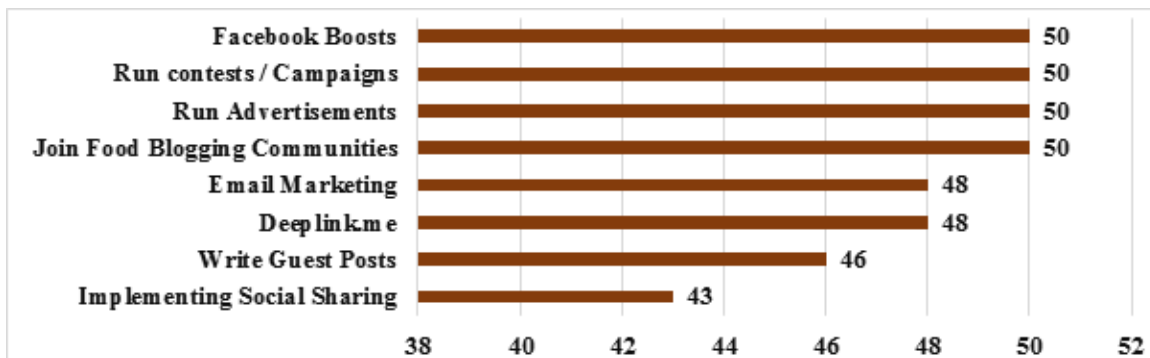




**Figure 4.3. Creating Engagement on Facebook**

All the respondents indicated that creating appealing content in the form of posts, blogs, videos and pictures was the best way to engage with Facebook members. It is essential to create beautiful imagery of Indian food and of various dishes. Respondents 3, 16 and 42 stated that the images should not feature colours such as brown, orange or red which create a perception of hot / spicy food but feature different shades of white, green and blue as well which connote freshness and healthy food. The posts should inform viewers about the diversity of Indian food, their ingredients, health & therapeutic benefits etc. Longer blogs / videos can be created to share recipes of various Indian dishes and encourage conversation about them.

Most respondents indicated that the posts, blogs and videos must inform that Indian food is not necessarily all about masala, spices and oil but combines great taste with nutrition as well. Respondent 1 highlighted the importance of using specific keywords such as 'healthy', 'tasty', 'variety' in the posts and in the image title hashtags which will increase the chances of the Facebook page popping up when people search for 'tasty' & 'healthy' food cuisines. Words like 'spicy' can be replaced by more evocative ones like 'aromatic'. Optimizing the images, videos and blogs for fast downloading on smartphones is a great way to ensure viewers stay engaged as is posting content during peak viewing times (such as weekends or in the evenings). Respondents were asked as to ways of creating awareness about Indian food even amongst those who were not aware of it. Figure 4.3 summarizes their responses.



**Figure 4.3. Creating Awareness**

Respondent 29 observed that email marketing was one of the best ways to reach a wider target audience. Identifying international target groups, obtaining their emails and sending emailers to them at regular intervals would facilitate 'recall' and 'recognition' of India and its cuisine should any of the recipients contemplate a holiday. Using tools like Deeplink.me

will enable Facebook content to get shared on other social media such as Pinterest, Twitter, Instagram, Tumblr and Snapchat & even through smswidening the target audience reach. Active participation in food blogging communities on Facebook will ensure that Indian cuisine finds prominent mention in them, impinging on the attention of people. Respondent 23, 36 and 50 pointed out that running promotions, campaigns and contests related to Indian food is another very good way of creating awareness about the cuisine. For example, respondent 36 stated that people can be given vouchers, gifts and awards based on the numbers of likes and shares they generate on the Facebook page featuring Indian food.

Respondents gave further ideas on how to stimulate curiosity of international tourists in Indian cuisine and their responses are indicated in figure 4.4.

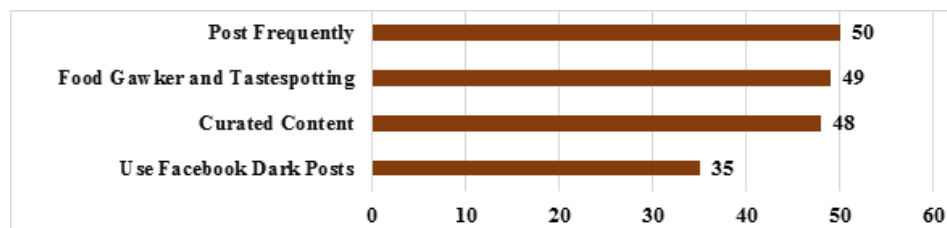


Figure 4.4. Stimulating Curiosity in Indian Cuisine

All 50 respondents recommended posting content at least twice a day on Facebook. Frequent posts stimulate interest through repetition, ensures that fresh content is featured daily stimulating more interest. Several respondents highlighted the use of curated content on Indian cuisine featuring high quality imagery and imaginative posts as well as posts from other Facebook links, pages, blogs on Indian cuisine that will lead to enormous spike in online traffic to the site and generate more brand awareness. Linking the Facebook page to websites dedicated to food / recipes such as Food Gawker and Tastespotting will ensure that the page is visible to the large numbers of viewers of these sites as well. Several respondents recommend the use of 'Facebook Dark Posts' including sharing status updates, posts, links, videos and photos which pop up as advertisements within the news feeds of people on Facebook thereby stimulating interest and curiosity especially amongst those who have never sampled Indian cuisine.

Most respondents indicated that tourists were reluctant to sample Indian cuisine because of its reputation of being excessively spicy / oily and of the perception that the conditions in which it is prepared is unhygienic. They recommended several ways in which such perceptions could be changed which are indicated in figure 4.5.

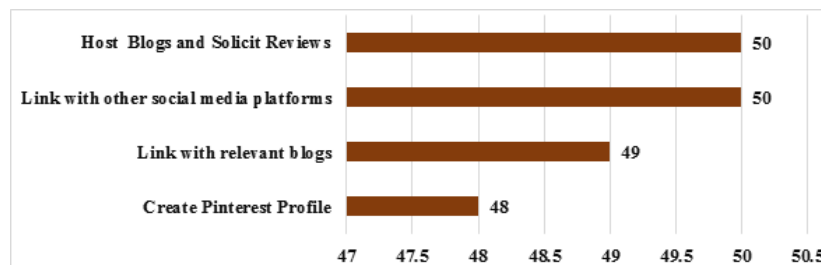


Figure 4.5. Perceptions Related to Indian Cuisine

All the respondents indicated that the best way to clear misconceptions related to Indian cuisine was through online debate and dialogue through different social media platforms that link with Facebook. This was best achieved through blogs featuring Indian cuisine and recipes, inviting viewers to try out recipes and solicit feedback. This would give the opportunity to inform and educate viewers about Indian cuisine, reassuring them and clearing their doubts and misconceptions. Of the various social media sites, respondent 28 recommended linking the Facebook page with Pinterest which is the preferred site to host pictures of food & drink and invite discussion about them. Respondents were queried as to what would be the best way to promote Indian food using positive word of mouth. Their responses are indicated in figure 4.6.

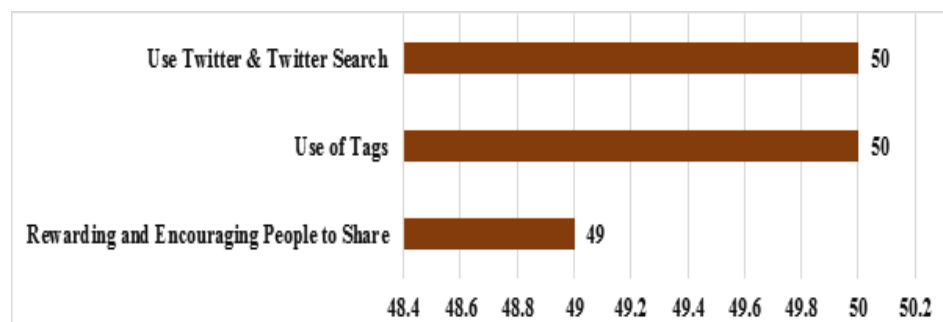


Figure 4.6. Promoting Positive Word of Mouth

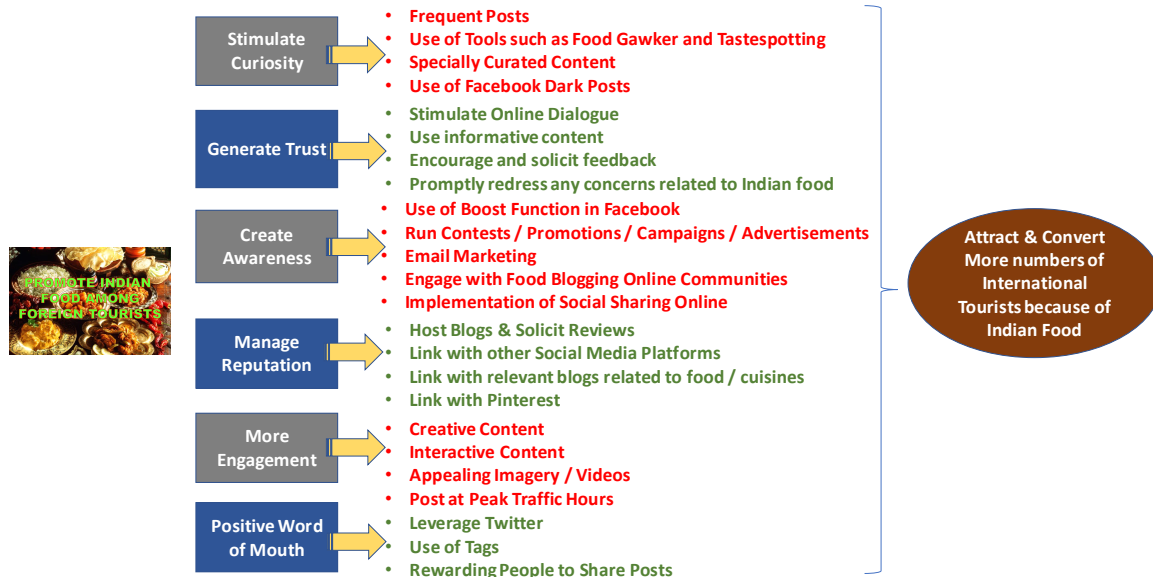


Figure 4.7. Conceptual Map – Promoting Indian Cuisine using Facebook

Respondents pointed out that the most common way to spread positive word of mouth about Indian cuisine was to reward and encourage people to share content hosted on the Facebook page. Another way was to tag the videos, posts and pictures on the page with

other Facebook pages that deal with food, recipes and different cuisines. This would ensure visibility of Indian Cuisine on as many food related online sites as possible. Linking the Facebook page with Twitter has the advantage of generating tweets about Indian food which can be sent by interested persons to others in their network ensuring more visibility for Indian cuisine.

From the above findings, the conceptual map indicated in figure 4.7 was developed.

## CONCLUSION & RECOMMENDATIONS

Indian cuisine can be potentially leveraged to increase foreign tourist footfalls into India. However, currently the cuisine suffers from underrepresentation amongst international tourists or from misconceptions related to its taste, ingredients, health and hygiene. This paper explored the various means and ways, the immensely popular social media platform Facebook can be leveraged to promote Indian cuisine amongst international audiences. From the findings of this paper, the following recommendations may be made.

It is recommended for the Ministry of Tourism to invest in a state of the art, Facebook Business Page that is dedicated to promoting Indian cuisine on Facebook. It will be possible to create focussed marketing programs to attract international audiences better than the multiple pages and sites that feature Indian cuisine on Facebook.

The biggest challenge is to identify who are the potential visitors to India or which foreign tourists are likely to be interested in Indian cuisine. Facebook has many inbuilt features to solve this challenge including its 'insight', 'like' and 'check in' functions which may be leveraged to identify potential tourists, their demographics, likes, antipathies etc and customize online marketing communications for them.

Creating awareness amongst international tourists who may not be familiar with Indian cuisine is critical. Making the dedicated facebook page visible to these potential tourists in the larger universe of Facebook is necessary for this. It is recommended that this can be done through email marketing using Facebook links, use of the boost function in Facebook, running attractive and innovative online promotions and participating in food blogs on Facebook are some of the ways to promote Indian food amongst uninformed audiences.

In order to engage with potential tourists, it is recommended that the content featured on the Facebook page is creative and attractive. The use of colours in images of food that create perceptions of taste and healthfulness is recommended. The written content must feature keywords that ensure the Facebook page gets picked up quickly and that promote Indian food as healthy, non-oily and highly aromatic.

In order to remove many of the misconceptions about Indian food, it is recommended that the Facebook page engage with many online social media such as Twitter and Pinterest and with many blogs as well that can be used to educate and inform international audiences. For example, discussions on some blogs can focus on the health and therapeutic value of spices. Other blogs can solicit feedback from participants on any apprehensions they have on Indian food which can then be suitably addressed.

In the offline marketing environment, the power of positive word of mouth in attracting and converting customers is well known. In the online environment in which Facebook operates, positive word of mouth about Indian food can be facilitated through rewards mechanisms

for those Facebook users who share posts, pictures and videos about Indian food hosted on the Facebook page, through tagging content on other food related sites and blogs on Facebook and by interfacing Facebook with Twitter where the virtual tweets function like word of mouth promotions.

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## Comparative Assessment on Textural Parameters of Commercially Available and Iron Fortified Potato Chips

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### ABSTRACT

*Potato based snacks such as chips though widely acceptable and taste good, poses various health problems including micronutrient deficiencies due to its nutrient poor properties. Among various micronutrient deficiencies, Iron deficiency is one of the prevalent nutritional deficiencies worldwide, affecting 20% of the world population especially school aged children and is believed to be one of the main underlying causes of anemia. In order to make these snacks more acceptable (more nutrient dense) to health conscious consumer, iron fortification of potato chips was the aim of the current study. However, texture is one of a major factor contributing to the quality of food and is important for quality control in processing industry. During potato crisp production, the raw material changes in both texture and color. These changes depend on both potato cultivar and process parameters. Therefore, the present study was carried out to fortify potato chips with iron and in turn observe the effect of mineral fortification on texture of chips in comparison with commercial available ones. Fortification of potato chips was done at 15 mm Hg vacuum pressure with GRAS fortificant of iron (Ferrous sulphate) as per Box-Behnken design of Response Surface Methodology through vacuum impregnation technique. Results showed that optimized process conditions can fortify potato chips at 7.5 mg/100g of iron level (15% of RDI) with acceptable sensory attributes. Textural parameters were found to be similar for both fortified (452N) and commercial chips (456N) in terms of less number of peaks before fracture and more no of peaks after fracture, reflecting good overall acceptability. Thus, mineral fortification for a widely acceptable potato based snacks can be helpful in providing a healthier option to health conscious consumer with similar organoleptic properties.*

**Keywords:** Vacuum Impregnation (VI), Fortification, Potato Chips, Calcium, Texture.

### INTRODUCTION

Potatoes are the third most important food crop in the world after rice and wheat in terms of human consumption (IPC 2016). In fact, potatoes have a more favorable overall nutrient-to-price ratio than many other vegetables and are an important staple worldwide (Drewnowski

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2013). Moreover, production of potatoes are expanding more rapidly than any other major food crop in the developing countries as well as in some areas, where potatoes were virtually unknown a few generation ago they are now a dietary staple (IFPRI 1990). Keeping in view the potential of potato in the food security of developing nations, FAO has declared it as the “food for future” (Singh et al. 2011). It is reported that nearly one-third of the potato production is processed into par-fried frozen potatoes and fried chips (snacks) (Miranda & Aguilera 2006). Potato chips serving as an appetizer, side dish, or snack are very popular now a days. These products though taste good, pose health problems due to its energy rich and nutrient poor properties. Junk/processed foods are found to be associated with health negative effects via two key problems, the following key problems have been associated with : (i) Under-nutrition causes nutrition deficiency, and ii) over nutrition leads to obesity, hypertension, hyperlipidemia, diabetes, and cancer. Now a day’s undernutrition especially deficiencies of essential vitamins and minerals (collectively referred to as micronutrients) are very much relevant among (Black 2008) school aged children since they are in a growth and development phase and have nutritional requirements that vary according to the stage of growth and that are greater and clearly differentiated from those of adults (Prieto & Cid 2011). Additionally, they are especially vulnerable to inadequate consumption of nutrient-rich foods, dietary taboos, lack of access to health care and inefficient utilization of available micronutrients by cause of infections and parasitic infestations among other reasons (UNICEF 2004). Among various micronutrient deficiencies (MD) iron deficiency, has been reported to be one of the prevalent nutritional deficiencies worldwide, affecting 20% of the world population and is believed to be one of the main underlying causes of anemia. (Van den Broek 2003). In addition to the negative effects of iron deficiency on physical growth, iron deficiency during adolescence may impair immunity as well as cognition since adolescents have increased requirements for iron due to rapid growth (Todorich et al. 2009). Further, current studies are also emphasizing the importance of MD in developing countries (WHO 2009) and among school-aged children in particular (UNICEF 2004). In order to make such potato based snacks more acceptable to the health cautious consumers in terms of adequate nutrient density, various strategies such as food fortification, iron supplementation and dietary modification are the common practices. Compared to other interventions, food fortification is considered as more sustainable public health strategy because it can reach wider at-risk populations through existing food delivery systems without requiring major changes in existing consumption patterns (Das et al. 2013). In addition, food fortification is likely to be more cost-effective, and – if fortified foods are regularly consumed – it has the advantage of maintaining steady body stores (WHO/FAO 2006). Thus, iron fortified potato chips will be one of the effective alternative to overcome the problem of difference between recommended and actual iron intake. Among the technologies used for food fortification, Vacuum Impregnation (VI) have been identified as a new processing technique based on the process of diffusion.

VI have been reported as a new innovative technique to enrich food not only with nutritional and functional components but also with the aim to obtain food with innovative sensorial properties as well as able to inhibit the most important chemical degradation and the microbial growth (Deroosi et al. 2010). It is basically a method in food processing by which most air and part or all of the native solution are removed from the food porous spaces (vacuum) and replaced by an external solution (impregnation) (Laurindo et al. 2007; Tiwari & Thakur 2017). It has dual advantages, firstly it will partially dehydrate the sample; and secondly it enables to introduce controlled quantities of solute into the food particles. (Torreggiani &

Bertolo 2001). Potato chips, because of their affordable price, easy availability and wide acceptability among school aged children and more importantly having porous matrix (1%), have been the ideal carrier for calcium fortification using VI technique.

Texture is one of the most important attributes of fried foods and is also one of the major concern manufacturing of fried food products. Characteristic crispy/crunchy texture of potato chips, which is the result of changes in the original structure of potato tissue during heating (Sezin & Palazoğlu 2017), is one of the most important sensory characteristic on which consumers base their appreciation. Raw potato properties (low reducing sugar), manufacturing conditions (use of blanching before frying) (Salvador et al. 2009) and pre-drying after blanching (Pedreschi et al. 2007) are the major factors on which crispness of potato chips depends. Blanching prior to frying was also found to increase the crispiness of the potato chips (Van Loon 2005). Texture of potato crisps are also influenced by frying temperature and the type of oil used for frying (Kita, Lisinska, & Golubowska 2007). Therefore, the aim of the current study is to fortify potato chips with iron, using VI technology that offers the same desired organoleptic characteristics of commercially available potato chips via conducting sensory and instrumental texture evaluation. The study was focused mainly on the effect of iron fortification on textural properties of fortified chips in comparison with control and commercially available non-fortified potato chips. In order to avoid off flavour and off-color, which is a general concern of iron fortification as reported earlier (Jain and Pandey 2012), while meeting the target of 15 % RDI of iron for adolescent (10-19 yrs) the low concentration of iron ranging from 0.025 to 0.0625 % was used during the study.

## MATERIALS AND METHODS

Fresh harvest of potatoes (*Solanum tuberosum* L.) Cv. Kufri Chipsona-1, grown during winters of 2014–15 (Rabi season), was selected and procured from CPRI Regional Station, Modipuram, Uttar Pradesh, India for fortification purpose. The peels (upper 1.5mm layer) were removed manually using a ceramic knife. Chips were made using a commercial chips cutter (Make: Felix wafer maker Slim, Om Appliances, Rajkot, India) with an average thickness of  $1.67 \pm 0.058$  mm as measured by Vernier Caliper.

## FORTIFICANTS AND CARRIER

High bioavailability (e"90%), water solubility and relatively lesser impact on taste and color are the qualities which made ferrous sulphate (food grade & GRAS substances) the best among all the available fortificants for the iron. Different concentrations of ferrous sulphate solution were used for impregnation/fortification and the potato chips were used as a carrier. Research work was planned in such a manner that the target level (15 % RDI) of iron can be achieved by consuming 30g of potato chips serving, in accordance with Recommended Amount Customarily Consumed (RACC). Calculation of the standard RDI value of iron was done on the basis of 2000 calorie intake for young individual living sedentary lifestyle ([www.lenntech.com/recommended-daily-intake.htm](http://www.lenntech.com/recommended-daily-intake.htm) 2015). Keeping the respective RDI values of iron in view for young individual (10-19 yrs), the goal for iron fortification were set at 7.5 mg/100g with 456N hardness 7.5 overall acceptability.



## STATISTICAL ANALYSIS

The statistical evaluation was performed by running analysis of variance (ANOVA) and regression calculation using SAS (version 11). Each factor had three levels which were coded as -1, 0 and 1. The central points (coded as 0) for each factor were 0.045% ferrous sulphate, 1 min blanching time, 10 min vacuum time and 15 min rest time. Surface plots and equations have been derived from STATISTICA Version 5.0 software.

## TEXTURAL ANALYSIS

Average fracturability (firmness) of commercial available chips (Lay's classic salted) was reported to be 456.03 N (Joshi et al. 2016). In order to compare the textural characteristics (Firmness) of fortified and commercial potato chips, texture of fortified potato chips was evaluated using sensory and instrumental methods.

### *Sensory Evaluation*

To evaluate the sensory properties of the fortified potato chip, a semi trained panel of 25 members were asked to evaluate the sensory attributes which were *crisp* – initial sensation of being brittle, crushable or friable; *crunchy* – harsh sound produced when chips was broken and chewed; *abrasive* or rough – sharp granular pieces in mouth after first chew for texture analysis.

### *Instrumental Evaluation*

Among the instrumental tests, the puncture test placing the entire potatochip in a three-point support has been widely employed. Following this, the developed fortified potato chips were evaluated for the textural parameters like  $F_{max}$ , total number of peaks before and after breaking by Texture Analyzer (Stable Micro System, UK). For this, on a hollow planar base, a chip was placed for analysis. The force was applied to the sample by using a cylindrical probe of 0.25mm diameter at a constant speed of 1mm/s until the sample was cracked. The pre-test speed, test speed, post-test speed, distance, trigger type, data acquisition rate and load cell were set at 1.0 mm/s, 1.0 mm/s, 10 m/s, 3 mm, Auto-10 g, 500pps and 5 Kg, respectively. To determine the texture characteristics of the chips, force deformation data were recorded. The maximum breaking force was proposed to quantify the texture of the samples (Pedreschi & Moyano 2005)

### *Organoleptic Evaluation*

The developed fortified products were organoleptically evaluated by a semi-trained panel of 20 judges from Amity Institute of food technology, Amity University, Noida. The judges were served each preparation with one control and two test samples of iron fortified, and commercial potato chips. Judges were asked to score the samples for color, appearance, flavor, texture, taste and overall acceptability using a score card of 9 point Hedonic Rating Scale. Control sample was prepared from ingredients used in the usual recipes and test samples were prepared by fortifying ferrous sulphate at 0.025 to 0.0625% levels. The samples were coded to avoid any bias. Each product was tested thrice and mean scores were calculated.

## RESULT AND DISCUSSION

The experimental study showed that using VI technique, it was possible to increase the concentration of iron in the potato chips from 0.7 mg/100g to 7.5 mg/100g (fortified) when compared to commercial fried potato chips (1.4 mg/100g) preparations. The results of 27 experiments run showed that the range of iron impregnation varied from 6.24mg/100g to 15.88 mg/100g while firmness and overall acceptability varied from 358 N to 589 N and 6.3 to 8.6.

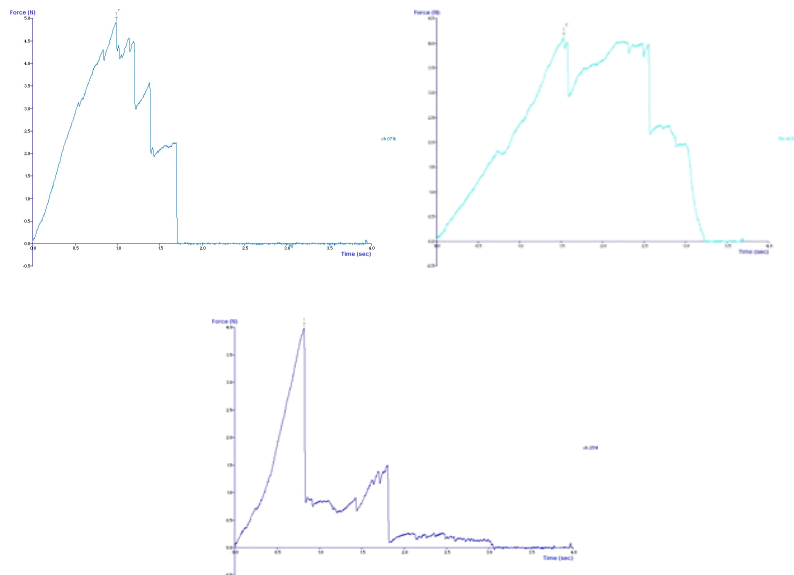
### TEXTURE OF FORTIFIED AND NON-FORTIFIED POTATO CHIPS

Table 1 showed the textural parameters of fortified and non-fortified potato chips.

**Table 1: Texture Parameters of Fortified and Non-fortified Potato Chips**

Chips Sample	Number of force peaks before breaking	Number of force peaks after breaking	Number of total force peaks	Maximum Force ( $F_{\max}$ )(N)
Commercial Chips	7	14	21	456
Control Chips	5	12	17	454
Iron fortified Chips	7	10	17	452

In general, the higher number of total force peaks was associated with higher number of total sound peaks and to  $SPL_{\max_{10}}$  (Salvador et al.2009).Chen et al. 2005 also reported that high number of force and sound peaks have been associated with high sensory crispiness.Validating the findings. developed product had more number of peaks in which number of force and acoustic peaks was lower in the first region (before breaking) than in the second region (after breaking), which confirms the fact that the main structural breakdown occurs in the second region. Further, at an optimized condition, fortified potato chips had the firmness of 452 N and crispiness index (17 peaks) which were almost similar to earlier findings of Joshi et al. (2016) that average fracturability/firmness of commercial available chips (Lay's classic salted) was 456.03 N with 21 positive peaks. Maximum force value of iron fortified and commercial (Lay's classic salted) were found to be similar i.e. 452 and 456 N.  $F_{\max}$  was found to be 454N for control. Typical force-deformation curve of fortified and non-fortified has been shown in Fig. 1. In the light of this observation, fortified potato chips were at par with commercially available chips in terms of firmness and crispiness.



**Figure 1: Typical Force-deformation Curves of Iron Fortified (a), Control (b), Commercial (c), and Potato Chips**

The fracture force, estimated through instrumental evaluation, gave approximately similar results as that of sensory attribute (hardness, crunchiness, chewiness, and tenderness) as measured by a semi-trained panel, while deformation at fracture did not significantly correlate with any of the sensory attributes as already been reported by Segnini et al. (1999b)

### OVERALL ACCEPTABILITY EVALUATION

Values of sensory attributes evaluated are shown in Table 2. Consumers perceive the product first with their eyes followed by their tongue. Therefore maximum care was taken for product development process, in terms of appearance and taste by using low level of fortificant (ferrous sulphate) solution, so that discoloration which is a common processing complaint against iron fortified product can be avoided (Fig 2). The optimized Iron fortified potato chips were well acceptable in terms of overall acceptability before marketing (7.5 of fortified chips v/s. 8.0 of control and 8.5 of commercial chips).

**Table 2: Effect of Iron Fortification on Organoleptic Evaluation of the Potato Chips**

Potato Chips	Taste	Flavour	Colour	Texture	Overall acceptability
Control Chips	7.96±1.09 <sup>a</sup>	8.07 ± 1.11 <sup>a</sup>	7.95±1.31 <sup>a</sup>	8.20±1.17 <sup>a</sup>	8.04±1.01 <sup>a</sup>
Fortified Chips	7.30±1.14 <sup>a</sup>	7.50±1.10 <sup>b</sup>	7.36±1.05 <sup>b</sup>	7.39±1.07 <sup>a</sup>	7.54±0.93 <sup>b</sup>
Commercial chips	8.30±1.14 <sup>a</sup>	8.50±1.10 <sup>a</sup>	8.36±1.05 <sup>ab</sup>	8.39±1.07 <sup>a</sup>	8.54±0.93 <sup>ab</sup>

<sup>a-b</sup>Values with the different letters within the same column are significantly different at  $p < 0.1$ . Mean WSD (n=56). 1-9 scale: 1 = dislike extremely. 9 = like extremely.



**Fig 2a. Iron fortified Chips**



**Fig 2b. Control Chips**

### CONCLUSION

The present study showed that textural properties of optimized fortified potato chip in terms of total number of peaks (17) and Maximum force (452 N) for fortified as well as non-fortified commercial potato chips (21 and 456N) were almost similar to each other reflecting good overall acceptability. The results indicated that, the set targeted level (15 % RDI of iron) can be achieved at even very low concentration of iron fortificant solution (0.043 %) using VI technique. Therefore Nano iron compounds which is water soluble, safe for consumption

and more bioavailable, can also be explored for iron fortification. Thus iron fortified potato chips will be a healthier option for health conscious consumer.

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## Need for Additional Protection for Geographical Indication for Teas: A Case Study on Darjeeling Tea

Rajesh Nautiyal\*

### ABSTRACT

*The Darjeeling Tea is known for its unique fruity, floral and astringent flavour and quality. The DARJEELING word and logo is registered under the Geographical Indications of Goods (Registration and Protection) Act, 1999 in India in the name of the Tea Board. Though the Darjeeling Tea cannot be grown anywhere in the world except the reserved regions of Darjeeling, West Bengal, still there are reports of Falsification and adulteration around the world. This paper makes an attempt i) to identify the infringement cases of Darjeeling word and logo by other countries or establishments; ii) to find impact of global falsification on Darjeeling Tea and; iii) to Compare Darjeeling Tea with Champagne as mentioned in Trade-Related Aspects of Intellectual Property Rights (TRIPS) with the help of review of literature. This can be used to provide an overview and reference in regard to protect and find ways to avoid vitiate of Darjeeling Tea. A number of cases had been observed in regard to infringements which were legally won by Tea Board. Also, a status like Champagne can improve value and perception of the Darjeeling tea and by this the farmers and workers will get better monetary benefits. An additional article like article 23 is required in TRIPS at the global level with the help of organisation like World Trade Organisation to protect the agricultural products like teas from bootlegging of the trademark, logo, adulteration, falsification, etc. There is need to create 'Additional Protection for Geographical Indication for Teas' similar as Wines and spirits. With this, the tea gardens dedicated to produce delicate flavour like Darjeeling Tea can be prevented from generic usage at international level.*

**Keywords:** Geographical Indication, Tea, Darjeeling, Trademark, Logo, TRIPS.

### INTRODUCTION

Darjeeling tea or the “Champagne of Teas” is known for its unique aroma and taste. This cup of tea is the epitome of elegance and good taste and is described as fruity, floral and astringent bearing clear bright and less coloured texture. The plant used is the small leafed Chinese variety of *Camellia sinensis* var. *sinensis* and is grown over a vast area of hilly land, covering 17,542 hectares divided into 87 estates. Globally 40, 00,000 tons tea is produced and the share of Darjeeling tea to this is just 0.25%, i.e. 10,000 tons (Khera 2013).

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According to Thunderbolt Tea (n.d.), the word Darjeeling comes from two words: “Dorje” which means thunderbolt and “Ling” means place, hence ‘The Land of Thunderbolt.’ It is located in the Lesser Himalayas at an elevation of 6,700 feet. The hills of Darjeeling are part of the Lesser Himalaya. The climate is mild temperate with extensive summer rainfalls due to the monsoon. An average temperature of 13.6 degrees Celsius and average rainfall is 2547mm. The humidity varies from month to month, even in the parts of the day. The gradient of the slopes is very steep – 60° to 70° (The Tea Board of India 2014). The soil does not retain water due to its sandstone and conglomerate formation, thus it is not suitable for agriculture purpose. These all results in a cool, moist climate with adequate rainfall and also sloppy contour gives this place a unique status in the world which is not found anywhere in the world.

This unique location and climate was realised by Dr. A Campbell and in 1845 as an experiment the first seeds which were brought from present Uttarakhand were planted at a height of 700 ft. and with time it evolves into its known ‘muscatel’ flavour (second flush) and an exquisite banquet. Darjeeling tea is still manufactured using a conventional Orthodox industrial technique which is plucking the tea leaves, withering process, rolling process, fermentation process (depends upon type of Tea), firing process, and last sorting and grading process. Further, it has many varieties depending upon the harvesting period, such as First flush (harvested in mid-March), Second flush (harvested in June), Autumnal flush (harvested in the autumn after the rainy season) etc. Each flush gives a unique taste in its own way and sold with indication of harvesting including year of production (Gebely 2013).

#### **DARJEELING TEA AND GEOGRAPHICAL INDICATION**

World Trade Organisation (WTO) was established in 1995, and India is one of the founding members. In 1994 under Uruguay Round of the General Agreement on Tariffs and Trade (GATT) an Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) was negotiated which is an international legal agreement between all the agreed members. TRIPS provide protection and enforcement of all intellectual property rights including copyrights rights, geographical indications, trademarks, etc. (Srivastava 2004).

Further in TRIPS agreement has many sections out of which Part II, Section III is about geographical indications (GIs). This Section has three articles: Article 22 provides protection of GIs, Article 23 provides Additional Protection for Geographical Indications for Wines and Spirits and article 24 is about International Negotiations and exception in GIs (World Trade Organisation 1995 Annex 1C s. 3 ss. 22 -24).

India enacted The Geographical Indications of Goods (Registration and Protection) Act, 1999 on 30<sup>th</sup> December 1999. This act provides registration and better protection of geographical indication relating to the goods. The definition of Geographical indication is stated as, “in relation to goods, means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributed to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be.” Under fourth schedule good are classified into many classes. Class 30 is about Coffee, tea, cocoa, sugar, rice, tapioca, sago, artificial coffee; flour and

preparations made from cereals, bread, pastry and confectionery, ices; honey, treacle; yeast, baking powder; salt, mustard; vinegar, sauces (condiments); spices; ice. (Government of India 1999, chapter I s. 1 ss. 3 (e))

In 2004-05, Darjeeling Tea became the first product to receive a GI tag through Indian Patent Office (IPO). The Darjeeling Certification mark and logo is administered by the Tea Board of India. According to Tea Board of India (2014), Darjeeling tea is: Tea produced in the said [Darjeeling hilly] region has the distinctive and naturally occurring organoleptic characteristics of taste, aroma and mouth feel which have won the patronage and recognition of discerning consumers all over the world. (Geographical Indication Journal, 1, July 2004). The concept of Terrior is applicable to “Darjeeling tea” making it as a unique and inimitable product similar to “Champagne” of Champagne, France. However Champagne is further protected under Article 23 of TRIPS that provides additional protection for geographical indications for wines and spirits (Saha&Bharti 2005).

Though the tea is famous all around the world still there are less studies done on Darjeeling tea, its GI tag and its scopes on intellectual properties rights. This study has following objectives:

- i) To identify the infringement cases of Darjeeling word and logo by other countries or establishments.
- ii) To find impact of global falsification on Darjeeling Tea.
- iii) To Compare Darjeeling Tea with Champagne as mentioned in Trade-Related Aspects of Intellectual Property Rights (TRIPS) with the help of review of literature.

Darjeeling Tea is a superior quality of produce of India. In order to create and sustain the authenticity of this product all around the world, The Tea Board of India (2014) has registered this product as GI (twice) so that a consumer, customers along with retailers have belief on the origin and quality. It helps to identify and prevent the infringement, manipulation, misrepresentation, contamination, adulteration, etc. cases all around the world. Further, this will lead to selling of pure product which will give pure benefits to its suppliers, owners along with labours (Saha&Bharti 2005).

Various laws were being made by Government of India like Plantation labour act 195, Food Adulteration Act, 1954, The Copyright Act, 1957, Maternity Benefit Act, 1961, Factories Act, 1948, Child Labour (Prohibition & Regulation) Act, 1986, Equal Remuneration Act, 1976, Minimum Wages Act, 1948, The Trade Marks Act 1999 etc. along with The Geographical Indications of Goods (Registration and Protection) Act, 1999 in order to create a sustainable environment and holistic approach for all people related to Darjeeling Tea. In addition to this hazard analysis and critical control points (HACCP) certification process and ISO series certification process are also taken by the tea estates of Darjeeling Tea in order to obtain certification of origin.

Srivastava (2004) indicated that there is misunderstanding among different countries, organization and associations regarding the use of the trademark and GI for products. In India, the Geographical Indications of Goods (Registration and Protection) Act, 1999 directs the use of word GI. Under section 25 a GI product cannot be registered as trademark. But Section 26 states the use of GI and trademark under certain cases like if the proposal is before the commencement of the said legislation or before the filing of an application for registration under GI.



### INFRINGEMENT CASES OF DARJEELING WORD AND LOGO

There are various actions undertaken by Tea Board including Legal and administrative. After TRIPS agreement, in 2004 DARJEELING TEA registered as Geographical Indication as Sl. No. 1 & 2. In the European Commission, the application of Darjeeling as GI is under ECR 510. Still, all around the world various cases were registered for the false registration for the Darjeeling Tea and Logo. The Tea Board of India (2014) has fought many infringement cases. Some of the cases are:

1. Republic of Tea (ROI), USA (2000-2006) tried to get a trademark under the name of Darjeeling Nouveau, which was an infringement of TRIPS agreement. The Tea board of India filed the same before Trademark Trial and Appeal Board (TTAB) and cancelled the ROI claim.
2. Delta Lingerie, a French company registered a mark very similar to the Darjeeling word and logo at Taiwan in class 25 in the year 2009. The Tea Board of India objected the rights of Darjeeling word and logo in Taiwan Intellectual Property office (TIPO); as a result the TIPO cancelled the registration of Delta Lingerie. This case has prevented the dilution of the Darjeeling's certification mark.
3. In 2006, Dusong, France was fined for breaching the geographical indication DARJEELING by Court of Appeal of Paris. The tea board of India filed a case against Dusong for the use of Darjeeling with a kettle device in respect of classes 16, 35 and 41.
4. Uni-President China Holding Ltd., China filed a logo similar to Darjeeling in class 29 in Trade Marks Office, China. However, its application was abandoned after the intervention of Tea Board.
5. Tea Sources Europe, France lost to Tea Board for the use of look-alike design of Darjeeling logo in Paris First Instance Court and was fined Euros 15000.
6. Newby Teas (UK) Limited, Canada filed a trademark similar to Darjeeling in class 30 and lost to Tea Board in Trade Marks Office, Canada.
7. Sunny Darjeeling, Germany attempted to register look-alike mark of Darjeeling mark for its tea and tea based products. After the intervention of Tea Board, the application was withdrawn and settled properly.

All these cases are the examples of global infringement of Darjeeling Logo and mark which heavily impact the market of Darjeeling tea. To avoid this, The Tea Board of India has a close monitoring mechanism. With the help of this mechanism, all the licences issued have very strict procedure and hence are all genuine. This board also issue Certificate of Origin for all the Darjeeling Tea based exports (The Tea Board of India 2014).

### GLOBAL FALSIFICATION

There are no global studies about the current falsification of Darjeeling tea in international market. Various reports have mentioned that in 2004, the trade of Darjeeling tea in global market was around 40 million kilograms whereas as per reports by Tea board of India, the production was only 10 million Kilograms. This gives an insight that there are serious issue of global falsification. This can in the form of adulteration as well. Some companies sell a

blend in the market to take advantage of its brand image (Lama 2013). Fnb news (n.d.), reported that in March 2013 government has appointed Thomson and Reuters to monitor and alert The Tea Board of India for infringement attempts. Due to agitation (2017) in Darjeeling, the exports have decreased. This has led to increase in sale of Illam variant of Nepal tea (the closest substitute of Darjeeling tea). Further, this variety is blended with Indian Orthodox variants. If this happens for a long time then, it may become a permanent substitute also as the Nepal variety has similar taste and very less price i.e. about 60 per cent lower (Rakshit 2017).

#### COMPARISON OF DARJEELING TEA WITH CHAMPAGNE AS MENTIONED IN TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS)

Champagne is grown in the Champagne region of France. The productive area of Champagne is 33,805 hectares and yields 9.164kg/hectares that is 268 million bottles having an approx. value of US \$. 5.86 billion (Comité Champagne 2016). It is a sparkling wine using specific grape varieties mainly Pinot Noir, Pinot Meunier, and Chardonnay. The uniqueness of this wine is that it uses 'méthode champenoise' which allows second fermentation in bottle (Fermentation en bouteille). Its method of production is unique as after first fermentation extra yeast is added to start second fermentation. Appellation d'origine contrôlée (AOC) has set a standard of one and half year to develop its unique flavour though many brands may take three or more years for ageing. After this remuage process is done and carbon dioxide is added. The Champagne has maintained its name throughout the centuries from 17th century to till date via its excellent advertising and packaging. Comité Interprofessionnel du vin de Champagne (CIVC) and appellation d'origine contrôlée (AOC) has codified the specific set of rules and regulations. Though France has legal protection for the use of Champagne word in many countries still it has been used by country like USA for some of its wine which was labelled before 2006. Another example is the use of word shampanskoe by Russia which is Russian word for Champagne (Taylor 2013).

Now if we compare this with Darjeeling Tea, It is grown in Darjeeling area of West Bengal, India. The productive area is 17,500 hectares of land which is less than Champagne by 16,305 hectares and yields approximately 10 million kilograms per year i.e. 0.25 % of world tea production having a value which fluctuates and may go up to US \$1,850 per kilogram depending upon the flush type and auction. The variety used is small leafed *Camellia sinensis* var. *sinensis*. Its production is done by Orthodox method which is more expensive than Cut, Tear, Curl (CTC) method (Cargill 2013). The Tea Board of India is responsible for the Darjeeling Certification mark and logo which has authoritarian rules and regulation for the protection and production of Darjeeling Tea. However as the Darjeeling Tea is not covered under Article 23 of TRIPS so it has much more cases of global infringement and falsification out of which certain resolved cases were indicated before and hence crowded out by low-quality goods (World Trade Organisation 1995 Annex 1C s. 3 ss. 22 -24). Both appellation d'origine contrôlée and The Tea Board of India has similar protected designated of origin. As per The Tea Board of India (2014) both administrative bodies have similar labelling restriction. A quick comparison is given below:

Table 1: Comparison of Darjeeling Tea and Champagne

Particulars	Darjeeling Tea	Champagne
Area	17,500 hectares	33,805 hectares
Yield/hectares	400-450 Kilograms	9.164 kilograms (for grapes only)
Highest Price	US \$1,850 per kilogram(may vary)	Totally depends upon bottle and vintage year. (Berman 2017)
Controlling body	The Tea Board of India	Comité Interprofessionnel du vin de Champagne and Appellation d'origine contrôlée
Geographical Indications	Protection under Article 22	Protection under Article 23

## CONCLUSION

Though all the countries know the importance of different labelled produce which are worldwide famous and has a reputation, still in many cases the developed countries or companies or manufacturers or the interested parties mislead the consumer by using the word and logo of these products. Even many countries have given protection to Darjeeling Tea but still they use the name in some way or another way.

A deadlock has occurred between developed countries and developing countries regarding article 23. Article 23 is highly discriminatory as it gives special status to wines and spirits which is grown and has benefits to mainly European and American Countries. Because of this Champagne enjoys the higher benefits than Darjeeling Tea. Apart from the issue of article 23, the multilateral system for notification and registration of GI, conflict of trademark and geographical indication is also needed to be resolved. There is need to create or add another article or clause to give equal status like wines and spirits to Darjeeling tea along with other GI produce. TRIPS should clearly define the use of word like, style, kind, grown, etc. to avoid the conflict of GI. The discrimination among the different produce and wines and spirits needed to be resolved to maintain a fair trade in the TRIPS world. This has direct impact on the bottom-most person associated with the produce as the falsification and other wrong trade practice take away a major price share of the original product which is clearly seen in Darjeeling Tea.

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## Local Cuisine, Tourism and Destination Differentiation: A Comparative Study of Indian States of Rajasthan and Bihar

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### ABSTRACT

*Gastronomy is becoming a key factor in the competitiveness of tourist destinations. The aim of this paper is to present the importance of food to the tourist in deciding their destination. Similarly, the paper shows the connection between local cuisine and the satisfaction of tourists, as a comparative study of Indian states of Rajasthan and Bihar.*

*The research is grounded on a qualitative triangulation approach to the collection of data and analysis. A strong rationale exists for choosing a qualitative methodological approach to this research. First, the nature of the research questions in asking 'What?' or 'How?' necessitates a qualitative enquiry to describe 'what is going on'. This is in contrast to quantitative questions which ask 'Why?' and then look to comparisons of groups or to cause and effect and statistical analysis. Second, a detailed view of the situation was required and the topic also needed to be explored. For example, the literature review revealed the importance of linking food and tourism.*

*Quantitative methods alone do not generate the type of data needed to meet the research objectives or provide a detailed view and explanation of the situation in Rajasthan and Bihar. The study hinged on the opinions and views of the experts in the field; therefore a qualitative approach was needed to have their valuable insights and experienced opinions.*

*The outcome of this study reflects the level of awareness regarding local cuisines, the importance of its documentation and promotion and the satisfaction with both the local food and the rest of the resources available to tourists at the destination. The main implication of this study could be the opportunity to design a tourism product and to promote the destination through its gastronomy.*

**Keywords:** Local Cuisine, Tourism, Tourist destination, Differentiation.

### INTRODUCTION

There have been widespread changes in demand and supply throughout the tourism industry during the first few years of the 21st century. New trends such as low-cost airlines, the omnipresence of the internet and the effects it has on tourism, the movement towards shorter

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and more frequent holidays, and the desire to visit newer and more exotic destinations, are bringing about major changes in tourist destinations and in the structure of the tourism industry. Tourists are increasingly motivated by new attractions and novel experiences.

Until now, tourism has been principally driven by just one of the senses - sight - at the expense of the other senses. This has converted the traveler into a mere observer of attractive landscapes, impressive architecture, or pictures of art in a gallery. This implies that the tourist has perhaps not fully used his or her other senses when travelling. Tourists are now beginning to react against this strong sensual bias by demanding holidays that stimulate the other senses. Gastronomy tourism and wine tourism have now emerged to meet this new demand. Wine tourism offers a rich array of sensory experiences that satisfy taste, smell, touch, sight and hearing (Getz, 2000). Gastronomy tourism can also stimulate the senses, above all taste. It has a cultural value and can be seen as the expression of a place's social and cultural capital (Bertela, 2011). Tradition notwithstanding, there is still a need for innovation in the products offered by gastronomy tourism, both to increase added value and to compete with other tourist destinations (Richards, 2002). The visitor bonds better with his or her chosen destination, and better appreciates its character and culture by sampling the local cuisine, more so than when the visitor is merely an observer (Cohen and Avieli, 2004) and the tourist has a relation between the travel dining experience and the local gastronomy (Chang et al., 2011). Food and wine form an integral part of local life, and the history, the culture, the economy and the society of a given area, and have been shaped through history by local lifestyles. This intensifies the contrast between one locality and another, and between rural tradition and urban modernity (Mitchell and Hall, 2006). Thus culinary tourism is a possible competitive advantage and an area's gastronomy reflects the cultural identity and heritage of that specific place (Henderson, 2009).

The objective of this paper is to present an analysis of gastronomy tourism and of the principal motivations of the tourist, with the aim of understanding the role that local cuisine plays in motivating tourists in determining their choice of destination. The paper shows the connection between local cuisine and the satisfaction of tourists, as a comparative study of Indian states of Rajasthan and Bihar. In the second part of this paper, the current literature is summarized, the geographic area of the study is outlined in the third part, the methodologies are listed in part four, and the main results are given in part five.

## 2. LITERATURE REVIEW

A series of important papers have been published which study the phenomenon of gastronomy tourism and which try to deal with the needs of this new type of tourism. The most important among them is Hjalgar and Richards's review (2002) which brings together the conclusions of a series of works published by experts in the field of gastrotourism; Boniface's paper (2003); Long's review (2004), which also tries to describe and characterize food tourism; Cohen and Avieli's studies (2004); and the two publications by Professor Hall, which investigate gastronomy (Hall et al. 2003) and wine (Hall et al. 2004).

Tourists have some basic needs, whether they find themselves at home or whether they are travelling; the most basic of which is to eat. Tourists are increasingly interested in consuming dishes and food products that are characteristic of the area they are visiting. Consequently, a new type of tourist has emerged, one who is specifically interested in trying local food products. Hall et al. (2003) define the food tourist as someone whose primary motivation is

to sample local food products. This might mean visits to primary or secondary food producers, attendance at food festivals, or visits to restaurants to try dishes typical of the area, thus reinforcing the importance of local food and the local actors involved in the supply chain (Montanari and Staniscia, 2009). Gastronomy is recognised as a part of the local culture of which the tourist is exposed to and experiences, as an element in the promotion of tourism, as a means of local economic development, and as a factor which influences the local economy and patterns of consumption (Tikkanen 2007). Therefore, it is necessary to define the role and the importance of food as an element which attracts tourists and as one of the basic elements of the area (Fox, 2007).

Academic literature proposes that gastronomy and wine interact with tourism in four distinct manners (Tikkanen, 2007): as an attraction in its own right which the destination can use to promote itself; as one component of the tourism product, in which it is used to establish food routes or wine routes; as an experience, due to the existence of one or a few places where the cuisine on offer has acquired a very high level and has become famous in its own right, for example thanks to the presence of a handful of master chefs; and as a component of the local culture, in which it is sustained by a series of food or wine festivals. This implies that food tourism is better developed in localities where the local cuisine is better connected with the local culture, and vice versa (Riley, 2005). Following on from Okumus, et al. (2007) cuisine has great potential for the development of tourist destinations and it is therefore fundamental to establish adequate marketing tools in order to increase the number of tourists. By extension, food tourism stresses the importance of using local ingredients, the quality of primary foodstuffs, the preservation and teaching of traditional cooking methods and the enjoyment of the end product. Nevertheless, various resources are required for culinary tourism to flourish. The presence of good restaurants is one obvious requirement. So too are food routes and wine routes; organised activities such as food and wine tasting events in wineries or restaurants combine education, publicity and leisure; events such as food and wine festivals; and the recommendations and advice given by organisations such as the Michelin Guide, which can endorse the quality of the local cuisine on offer (Smith and Xiao, 2008). In this way, food routes and culinary tourism combine the local food resources together with cultural and environmental factors, and must also count on the presence of actors such as restaurants, hotels and travel agencies (Corigliano, 2002).

Following on from Henderson (2009), there are four possible relationships between food and tourism: first, food as a tourism product; second, the marketing of food to tourists; third, food tourism as instrument for general development in the destination; and four, implications for practitioners.

We can identify four distinct types of motivation: physical, cultural, social, and prestige (Fields, 2002). Physical motivations arise from our simple need to eat. Cultural motivations arise from the desire to better understand a given locality or culture. Our desire for social interaction urges us to connect with the people of a given area. Finally, we can earn admiration and prestige from our greater knowledge of foreign cultures. The motivations underlying the desire to travel have been studied in depth by Fodness (1994) and by Gorssens (2000). Tikkanen (2007) suggests five connections between gastronomy, tourism and motivation: food as a tourist attraction, food as part of the tourism product, food as an experience in tourism, food as part of the local culture, and the relationship between tourism and food production.

In recent years food has gained recognition by governments, business, and academics as an integral part of the tourism product, and as a means of differentiation for destinations. There are many benefits to be had in linking food and tourism for all stakeholders concerned (Hall and Mitchell, 2006). Local food is a vital element that can help create a sense of 'place' and heighten destination appeal (Haven-Tang and Jones, 2006). Local produce adds authenticity to the tourist experience and provides motivation for visitors to come to a location (Sims, 2009). Tourists may even be tempted to stay longer in one place because of the availability of food products and related activities (Hall and Mitchell, 2006). Tourism provides an additional sales outlet for food producers and tourism-related spending on locally produced food products helps to stimulate and revitalise local economies (Boyne, Hall and Williams, 2003). Increasingly food is used in development initiatives to strengthen tourism destinations, and to create linkages of benefit to both the food production industry and the tourism industry (Boyne, Williams, and Hall, 2002; Hall, Sharples, Mitchell, Macionis, and Cambourne, 2003; Hashimoto and Telfer, 2006).

Quan and Wang (2004) propose a conceptual model of the tourist experience, given that when a tourist takes a trip, he or she does so in order to satisfy various primary and secondary motivations. These motivations will depend upon the lifestyle and activities of the tourist in their normal life. Travel can satisfy these motivations by allowing the tourist to escape routine and have new experiences (contrast), to have experiences occasionally tried at home (intensification), or to consume food and dishes that are familiar while away from home (extension). Gastronomy can be classified as the primary motivation of the tourist who travels specifically to experiment with the local cuisine, and as a secondary motivation when the tourist considers the local cuisine as an important, but not the only, option among other attractions available in the chosen destination. As indicated above, gastronomy can interact with these primary or secondary motivations by contrast, by intensification or by extension with the everyday life of the tourist. Thus we can speak of contrast when a tourist samples food and dishes completely different from those available at home. This contrast is made possible by the conversion of distant localities into important international travel destinations, such as Hong Kong or Lima, due to the force of attraction (including culinary attraction) they exert on the traveller. We can speak of intensification when the tourist tries dishes they frequently consume at home (for example, the tourist who regularly eats Italian food at home and travels to Rome), or of extension when the tourist eats dishes that differ little from what they eat in their normal lives. For example, the tourist who chooses dishes that are typical of their home country and which they habitually eat at home.

#### **GEOGRAPHICAL DESCRIPTION OF THE AREA STUDIED**

This paper presents an analysis of gastronomy tourism and of the principal motivations of the tourist, with the aim of understanding the role that local cuisines play in motivating tourists and in determining their choice of destination. The Indian state of Rajasthan and Bihar has a rich culture and very old history.

Rajasthan is the largest state of India. A major portion of the state is covered with Thar Desert which is also known as The Great Indian Desert. Jaipur is its Capital City also known as the "Pink City". The State of Rajasthan is a land of wonderful palaces, forts, colours and festivals. On the other hand, Bihar the 13th-largest state of India, with an area of 94,163 kms and third-largest state of India by population. Bihar, the ancient land of Buddha, has witnessed



golden period of Indian history. The state has its capital at Patna, which is situated on the bank of the holy river Ganga. Bihar is an amalgamation of three main distinct regions, these are Magadh, Mithila and Bhojpur.

Facts	Rajasthan	Bihar
Rank based on size	First	Thirteen
Rank based on population	Seventh	Third
Type of Land	Mostly desert	Fertile
Climate	Hot	Tropical
History	Old	Very Old
Major Attraction	Desert, Forts, Festivals, Cuisine	Buddhism, Monuments, Festivals

## METHODOLOGY

The research is grounded on a qualitative triangulation approach to the collection of data and analysis. A strong rationale exists for choosing a qualitative methodological approach to this research. First, the nature of the research questions in asking 'What?' or 'How?' necessitates a qualitative enquiry to describe 'what is going on'. This is in contrast to quantitative questions which ask 'Why?' and then look to comparisons of groups or to cause and effect and statistical analysis.

Second, a detailed view of the situation was required and the topic also needed to be explored. For example, the literature review revealed the importance linking food and tourism. Networks and local food systems also appear to be fundamental to this linkage and, most importantly, in maintaining sustainable competitiveness.

Quantitative methods alone do not generate the type of data needed to meet the research objectives or provide a detailed view and explanation of the situation in Rajasthan and Bihar. The study hinged on the opinions and views of the experts in the field; therefore a qualitative approach was needed to have their valuable insights and experienced opinions. This is in contrast to the more dominant consumer/survey-focused approach, as indicated in the literature, geared towards understanding the niche market for food tourism. The final compelling reason for the qualitative approach relates to the researcher's own role as an active learner rather than as an 'expert' proving a theory.

The researcher wanted to explore and build a 'picture' of the situation, rather than test a hypothesis. This was because many points of discussion needed to be defined by working inductively, rather than being provided by the researcher in advance. Working inductively enables a full and rounded humanistic understanding of a situation rather than a purely objective scientific quantification of a current situation. It also presents the opportunity to develop and build on grounded theory when there is a low theoretical base. Grounded theory refers to theory that is generated from data that is systematically gathered and analyzed through the research process.

The researcher was able to collect and interpret information from a variety of data sources-

- Domestic tourists through interviewees and/or questionnaire.
- Content analysis of promotional material,
- Data in secondary materials.

Triangulation facilitates the collection of information when using a variety of research methods that complement one another by compensating for the weaknesses in one method of data collection by the strengths of another. Some people who are frequently visitors of domestic and/or international destinations were targeted. The selection of tourist was made after consultation with tour operators who sell packages to the residents of NCR. A questionnaire was floated. A total of forty one questionnaires were accepted. Six were interviewed personally and three were interviewed over telephone.

The fieldwork was carried out in December, 2017 and January 2018. Two questionnaires were developed and tested beforehand to ensure absence of question bias or error. The questionnaire consisted of 11 items asking about the parameters to decide the tourist destinations, their place of origin, the ordering of typical dishes by tourists and the perception of culinary products of the city.

The final questionnaire contained 11 questions which asked about the motivations for the visit to the selected destination, the choice of restaurant, their assessment of the city's cuisine, their opinion of the local beverage, and their socio-economic status. The questionnaire was written and offered in English.

## RESULTS AND DISCUSSION (CONCLUSIONS)

The outcome of this study reflects the importance of awareness regarding local cuisines, its documentation and promotion. This also highlights the satisfaction with both the local food and the rest of the resources available to tourists at the destination.

Promotion of local cuisine is a great opportunity to promote and strengthen particular tourist destinations. Although, safety & security is still the most important parameter to finalized any tourist destination. Another important consideration that has come up as finding of the research was type of tour packages sold by various tour operators. After interviews or receiving the filled in questionnaire, It was a surprise for us to know that tourists like to zero in their tourist destinations depending upon the type of packages available. These packages include – Affordable flight tickets, competitive stay, entertainments, activities etc.

For many more, the quality of the cuisine on offer is an important part of the holiday experience as a whole. Destinations must bear this in mind when developing their long-term plans for the local tourism industry.

In this paper we have done a comparative analysis between the states of Rajasthan and Bihar. The tourists are very much aware of the cuisine of Rajasthan. The awareness regarding the Rajasthani delicacies attracts 60 % of the respondents. Delicacies like – Dal bati churma, Mirchi vada, kachori, Namkeen, Mawa kachori, Ghewar are very popular amongst tourist. Some tourist visiting rajasthan are excited for the traditional rajasthani meals being offered as a part of their tour package. However, on other hand, the cuisine of Bihar is not very popular amongst the tourists. When asked regarding some traditional Bihari dishes only 38 % of the respondents have mentioned Litti chokha. This study reflects the unpopularity of Bihari cuisine amongst Tourists. If the Bihari cuisine is promoted and could be included in packages in some way, this might draw the attention of tourists. We also found that the local cuisine was the second or third most important reason for the majority of visitors choosing to go to Rajasthan.

Furthermore, conclusions have also been drawn by analysing the received filled in questionnaire, promotional materials, secondary data and interviews -

Our results detect a high level of satisfaction among visitors regarding the local cuisine, and particular satisfaction with a meal at traditional Rajasthani theme (either lunch or dinner). Local dishes like kachori, gatte, mirchi vada, dak bati churma were rated very high. However, when we asked the same question regarding Bihari foods, almost 96 % of them lacks awareness regarding Bihari cuisine. At the same time, they are excited about Bihari food.

Finally, we consider local cuisine to be a vital part of the character of any tourist destination. All organisations involved in the tourism industry, whether public or private, must give it a key role in the promotion and development of the destination.

### LIMITATIONS

The main limitation of this study is related to the time duration, in which the study was carried out, that is December 2017 and January 2018. Second limitation is the sample size. We have considered 50 respondents, this could be increased to 500 or more.

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# 33

## CHAPTER

### **Advocacy of Chhattisgarh Cuisine: A Case Study of Information Available on Various Online Platforms**

**Yugal Kishor Sahu\*, Prateek Chauhan\*\* & Dr. Lomte D M\*\*\***

#### **ABSTRACT**

*During the recent years there is an incredible growth seen in tourism sector. India's culture and traditions has influenced the world heritage but not the food. There are local hidden recipes which are embedded in the nature and culture but still away from the reach of people all over the world. These hidden recipes have distinct colours, flavours & taste. Such flavourful recipes can be compiled and aroused to other exciting flavours for the upcoming generations with the new techniques & technological up gradation to the world habitat and heritage gets neglected with the time. In order to promote Chhattisgarhi culinary heritage; researchers would like to find out the information about the cuisine available on various online platforms. This paper seeks to identify the information available on Online Platforms & Official District Headquarters' Websites of Chhattisgarh State; about Chhattisgarhi Cuisine as tourism promotional tool. Researchers have developed questionnaire using 5 point Likert scale to identify the information available on online platforms & Official District Headquarters websites. Data collected have been analysed by using SPSS version 16.0 and graphs have been generated using Microsoft Excel version 2007. Mode and frequency has been calculated to test null hypothesis. Null hypothesis got rejected and alternative hypothesis got accepted. The results of this study that; the steps taken to promote Chhattisgarhi Cuisine at local level are insufficient. There is urgent need to upgrade the all online platforms related to Chhattisgarhi cuisine. Paper has suggested the needed the required information on Online Platforms & Official District Headquarters Websites; to promote gastronomic tourism & Chhattisgarhi Cuisine.*

**Keywords:** Chhattisgarhi Cuisine, Gastronomic Tourism, Online Platforms, Promotion etc.

#### **INTRODUCTION**

The food content displayed on online platform is very important for promoting Chhattisgarh cuisine. It promoting the Chhattisgarh cuisine and food culture of the region. These online platform help to create a virtual experience of Chhattisgarh culinary heritage for tourists. This study explores the contents of the Chhattisgarh cuisine and gastronomy on state district

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websites of Chhattisgarh state, ministry of tourism of India & blogs and food channels analyzing the information of Chhattisgarh cuisine and promote the Chhattisgarh cuisine and food culture. Specifically, the researchers tried to examine the capacity of online platform websites to introduce and advertise the Chhattisgarh traditional and local foods, recipes and culinary preparations.

### CULINARY ART AND TOURISM

United Nations World Tourism Organization has defined "Culinary Tourism applies to tourists and visitors who plan their trips partially or totally in order to taste the cuisine of the place or to carry out activities related to gastronomy (UNWTO, 2012)". In the same report CarminaFandos Herrera (UNWTO, 2012) have pointed out that culinary tourism is an authentic experience of a sophisticated lifestyle in a pleasant environment, associated with the good life and the economic wellbeing of consuming exclusive, high-quality locally grown products. Culinary heritage of the destination is important part of the tourist experience; but have not dealt seriously either by the authorities or by the stakeholders.

Prof F R Allchin, a UNESCO consultant visited India in 1969 and expressed his views about cuisine of India. *"In our view an entirely new orientation is needed, and Indians should begin to take a justifiable pride in their own cuisine."* (ALLCHIN, F R, 1969) He specially emphasized on the promotion of the local cuisine as cultural heritage and advised Indian community to take justifiable pride in their own cuisine. He also advised to make rule and put compulsion on hoteliers to make available local cuisine as an option to the western food in hygienic manner. So tourist can consume local food without fear. Spicy food should be available as per the convenience of the foreign tourist.

### CULINARY TOURISM AS A MARKETING TOOL

A destination can be marketed with the help of local cuisine as marketing tool. As Hjalager and Richards's state, "gastronomy or culinary tourism can be an important marketing tool to promote a destination (HJALAGER, A., Richards, G, 2002)". For example, 'A Taste of Scotland' is marketing programs that repositioning Scotland by providing traditional food for tourists with Scottish food (HJALAGER, A., Richards, G, 2002). Many marketing organization have realized that travelers are seeking for authentic local and regional food which motivates them to travel and start to use gastronomy or culinary to market themselves (HJALAGER, A., Richards, G, 2002). Wolf has defined culinary tourism fairly different where it is "the development and promotion of prepared food/ drink as an attraction for visitors" (WOLF, E., 2006). There are many ways to promote an appealing destination with food such as packaging, product development, positioning and the promotion of the attraction (DU RAND, G. E., & Heath, E., 2006). Moreover, researchers find that image of food use as a tool to market a destination can be effective.

### MARKETING PRODUCTS THROUGH WEBSITES

Internet marketing is a type of direct marketing; it has evolved so quickly and demanded the attention of so many companies. Essentially, Internet technology (which changes by the moment) has created a new way of doing business. In the Internet age, the way consumers evaluate and follow through on their purchase decisions has changed significantly. "Call now!" is no longer an effective pitch. Consumers have control over how, when, and where

they shop on the Internet. The Internet has all but eliminated the urgency of satisfying the need when the opportunity is presented (BURNETT, John, 2008).

### RESEARCH QUESTION

After understanding the importance of website content, we would like to know

- Whether online platforms are enough informative to guide on Chhattisgarh culinary heritage ?
- Whether the available information on the online platforms are enough for promoting gastronomic tourism of Chhattisgarh?

### OBJECTIVE

To find out the Chhattisgarh cuisine information available on the online platforms & promote the cuisine of Chhattisgarh.

### HYPOTHESIS

$H_0$ : The available information on the online platform is sufficient to promote local culinary heritage of Chhattisgarh.

$$H_0: Mo > 3$$

$H_A$ : The available information on the online platform is not sufficient to promote local culinary heritage of Chhattisgarh.

$$H_A: Mo < 3$$

### Methods

#### • Questionnaire Design

The tool used to conduct survey was a self-designed questionnaire which was filled up by the researcher after visiting each websites. 5 point Likert scale is used to understand amount of Chhattisgarh cuisine information available on online platform. Five parameters were used to judge the information was:

Five parameters	Five statements on which researcher have judged each website
Availability of Chhattisgarh Cuisine information on home page	Chhattisgarh Cuisine Information available on home page
Availability of link for 'what to eat' or Chhattisgarh cuisine.	Link for 'what to eat' or cuisine was available
Availability of recipes are available	Details of recipes was available
Availability of Culinary article or information of culinary	Culinary article or information of culinary heritage was available
Availability of Culinary information in pictorial form	Culinary information was available in pictorial form

#### • Scale

5 point Likert scale is used to understand culinary heritage information available on the website and mean calculated; where

1= Strongly Disagree

2= Disagree

3= Neither Agree nor Disagree

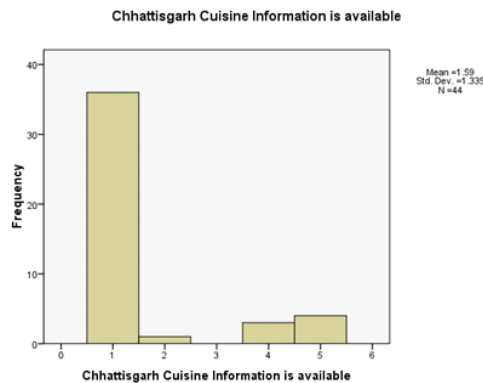
4= Agree

5= Strongly Agree

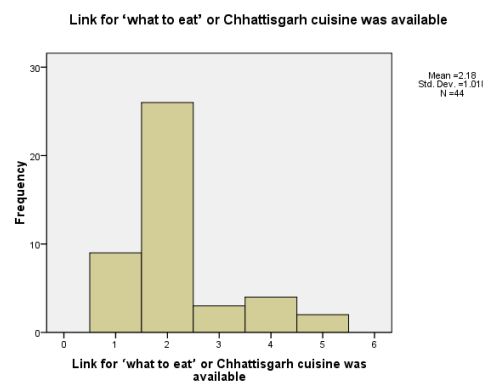
### • Sampling

27 Districts websites of Chhattisgarh state, 3 food channels, official Govt. tourism websites of India including India Tourism Development Corporation (ITDC)'s website & other online platforms.

### DESCRIPTIVE STATISTIC



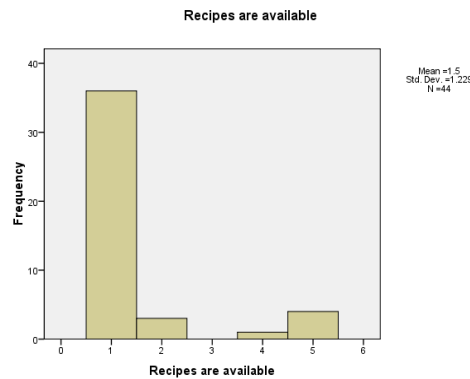
The histogram displays the information regarding “Chhattisgarh cuisine is available on homepage”. We take Y axis as frequency and X axis as a Likert scale for which Mode is calculated; where  $Mo = 1$ . Hence researchers have found that many of the online platforms don't have any information about the Chhattisgarhi cuisine. But some of the online platform is having a fair information about the Chhattisgarhi cuisine in their websites like Quora, Wikipedia, Google & Amazon kindle. Researchers specially appreciate the efforts of Dantewada district for assortment th



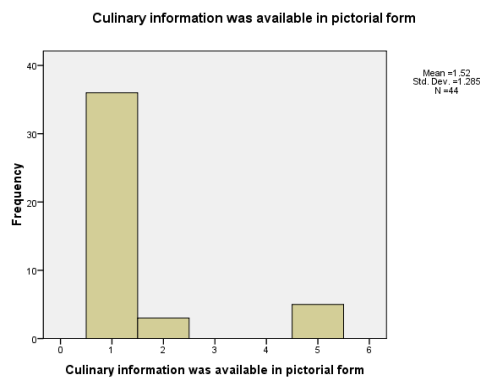
This histogram displays the information regarding “What to eat or Chhattisgarh cuisine was available”. We take Y axis as frequency and X axis as a Likert scale for which Mode is calculated; where  $Mo = 2$ . The researchers came across that maximum of the online platforms are not having much information regarding the eating habits of people. Researchers found that abundant information available on the the peoples food habit on Quora, Google, Wikipedia & Blogs(Chhattisgarh recipe).



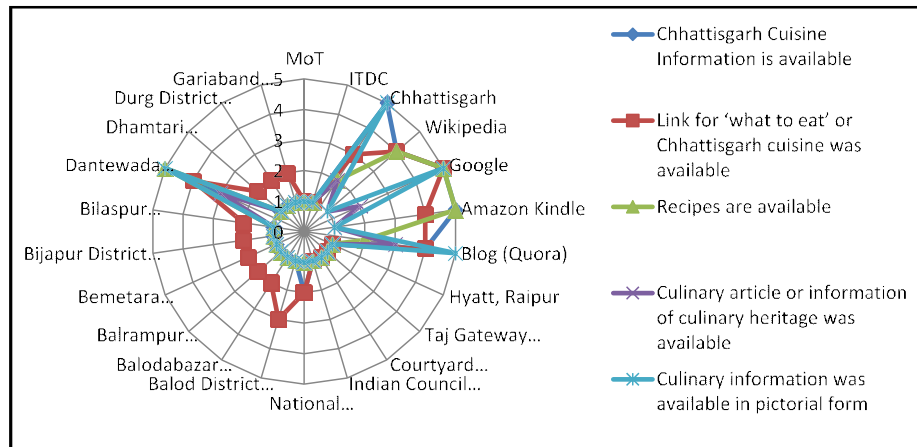
The histogram displays the information regarding “Recipes are available”. We taken Y axis as frequency and X axis as a Likert scale for which Mode is calculated; where  $Mo=1$ . Which depicts a clear picture to the researchers that the proper recipes of Chhattisgarhi cuisine are not available in abundant form. But still some of the websites like (Dantewada district, Google & Wikipedia] are having very little information related to the topic.



This histogram display the information regarding “culinary article or Information of culinary heritage was available”. We take Y axis as frequency and X axis as a Likert scale for which Mode is calculated; where  $Mo=1$ . The researchers found that the information regarding the culinary heritage is unobtainable in nature in various online platforms.



This histogram displays the information regarding “culinary information was available in pictorial form”. We take Y axis as frequency and X axis as a Likert scale for which Mode is calculated; where  $Mo=1$ . The analyst begin that the culinary information in pictorial form is not available up to the mark. Some websites displays the information which is not apt in its own nature.



#### Mot (Ministry Of Tourism, Goi) - (MINISTRY OF TOURISM)

On this platform the analyst fails to meet the all five parameters ranging from 1 to 5 that show there is none information is available regarding the Chhattisgarh cuisine.

#### ITDC (Indian Tourism And Development Corporation) - (INDIAN TOURISM DEVELOPMENT CORPORATION)

On this platform also the researchers fail to meet the all five parameters ranging from 1 to 5 that show there is none information is available regarding the Chhattisgarh cuisine.

#### Chhattisgarh Tourism - (CHHATTISGARH TOURISM BOARD)

On this platform researchers found that some information available on Chhattisgarh cuisine and their eating habits. It also supports the culinary information in pictorial form. But they also don't have any information on their culinary heritage. That means further more improvisation is required towards the awareness of Chhattisgarh cuisine. That's the main platform to show the culture of food for attract the gastronomical tourism.

#### Wikipedia - (WIKIPEDIA)

In this website analyst found that plenty of information about Chhattisgarh cuisine, eating habits and recipes are also available in different form of nature but still researchers feel that scope of knowledge is required to upgrade the culinary heritage of Chhattisgarh cuisine whether in written or pictorial format.

#### Google - (GOOGLE)

Google website having information about cuisine on home page, having link "what to eat/local cuisine", having proper recipes and also having information in pictorial form. But still researchers felt that there must be further scope of study on culinary heritage in which the platform is lacking.

#### Amazon Kindle - (AMAZON)

In this website researchers found that parameters ranging from 1 to 3 are supportive in nature in context of the complete Chhattisgarh cookbook author (SHRIVASTAVA, Ambika, 2017) but. Information in pictorial form and culinary heritage is not up to the mark.

### Blog (QUORA)

In this platform researchers found that the information on what to eat or eating habits are available whereas the researcher disagreed with the concept of recipes. As far as culinary heritage is concern the researchers are neither agree or nor disagree with the availability of material in this regard.

### Hyatt, Raipur - (HYATT HOTELS CORPERATION)

In this commercial platform the researchers are totally disagreeing with the concept. The analyst fail to meet the all five parameters ranging from 1 to 5 that shows there is none information is available specially food and regarding the local cuisine of Chhattisgarh.

### Taj Gateway, Raipur - (TAJ HOTELS & RESORTS)

In this commercial platform the researchers are also totally disagreeing with the concept. The analyst fail to meet the all five parameters ranging from 1 to 5 that shows there is none information is available specially food and regarding the local cuisine of Chhattisgarh.

### Courtyard Marriot, Raipur - (MARRIOT INTERNATIONAL, INC. )

In this commercial platform the researchers are also totally disagreeing with the concept. The analyst fail to meet the all five parameters ranging from 1 to 5 that shows there is none information is available specially food and regarding the local cuisine of Chhattisgarh.

### Indian Council For Cultural Relationship, Goi - (INDIAN COUNCIL FOR CULTURAL RELATIONSHIP, GOI)

On this official website of ICCR the researchers found that there is nothing information is available related food & food culture. This website is sole promoter of concept of Indian culture and heritage but not the food.

### National Digital Library Of India - (NATIONAL DIGITAL LIBRARY OF INDIA)

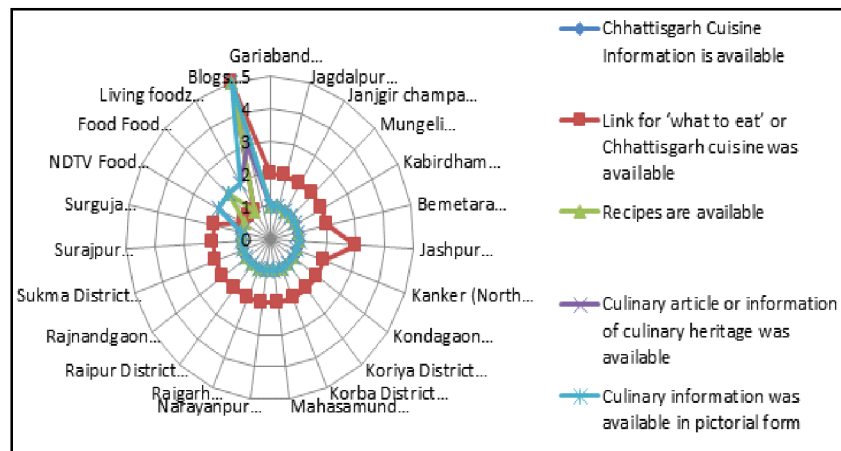
On the official website of national digital library researchers found that the information related to Chhattisgarh cuisine and eating habits are poorly available and needs more up gradation to promote the concept of Chhattisgarh cuisine.

### Balod District - (BALOD DISTRICT ADMINISTRATION CHHATTISGARH)

On the official District Headquarter website of Balod, researchers found that strongly promotes the use of agricultural Resources in the fields by the farmers. Which indirectly co-relates with food but fails to show the other aspects as well information on Chhattisgarhi cuisine, recipes are available, culinary heritage of Chhattisgarh cuisine & culinary information available in the pictorial form.

### Dantewada District - (DANTEWADA DISTRICT ADMINISTRATION (CHHATTISGARH))

On the official website of dantewada district, researchers found that it is the only website amongst all districts of Chhattisgarh that helps to promote the local cuisine of Chhattisgarh in all its prospects. It is also found that the work done by Dantewada District administration on food is appreciable whether information available on Chhattisgarhi cuisine, Chhattisgarh people food habit, recipes are available & culinary information is also available in the pictorial form. Only the one aspect i.e. article on culinary heritage researchers are neither agree Or not disagree with the statement.



#### Jashpur District - (JASHPUR DISTRICT ADMINISTRATION (CHHATTISGARH))

On the official District Headquarter website of Jashpur, researchers also found that strongly promotes the use of agricultural Resources in the fields by the farmers. which indirectly co-relates with food but fails to show the other aspects as well information on Chhattisgarhi cuisine are not available, recipes are not available, culinary heritage of Chhattisgarh cuisine & culinary information in the pictorial form are not available .

Balodabazar, Balrampur, Bemetara, Bijapur, Bilaspur, Dhamtari, Durg, Gariaband, Jagdalpur (Madhya Bastar), Janjgir Champa, Mungeli, Kabirdham, Kanker (North Bastar), Konda Gaon, Koriya, Korba , Mahasamund, Narayanpur, Raigarh, Raipur, Rajnandgaon, Sukma, Surajpur, Surguja Districts - (Chhattisgarh)

On all the official Districts Headquarter websites given above , the researchers found that all the websites are having a same information when it is compared with questioner, certainly there is no doubt about the websites are very helpful to promote the agriculture activities, which is a key aspect of food and local cuisine of Chhattisgarh, gives a pallid picture of people eating habits and tradition but not fulfilling the other parameters as well like (information on Chhattisgarhi cuisine are not available , recipes are not available, culinary heritage of Chhattisgarh cuisine & culinary information in the pictorial form are not available) .

#### Ndtv Good Times (NDTV) & Living Foodz (LIVING FOODZ) (Food Channels)

On the official websites of food channels mentioned above researchers, found that there is no doubt about these food channels have lots of information related to Indian cuisine and western world and to which they are equally & successfully promoting these cuisines round the clock, but the fact is that somewhere or the other they are equally lacking towards promotion of local hidden recipes in its own geographical boundaries such as country like India which is consist of 29 states and has different local recipes varying from place to place.

#### Food Food (Food Channel) - (FOOD FOOD)

On the official website of food food channel, Researchers found that the channel is closely related to the food, culture and Indian cuisine. The channel is very helpful to show case the Indian recipes at various big platforms through its different types of programmes like "TURBAN

*TADKA*" etc. which is quite an appreciable mark for the food industry, But somewhere on the other side the channel has failed to show case the local hidden recipes of Indian culture, now a day's which is in demand of most of the people all over the world.

#### Chhattisgarh Recipes (Food Blog)

On the Official blog of (SONI, Madhu Kiran) , researchers found that the blog have information in excess regarding the cuisine of Chhattisgarh which is truly supportive in nature, considering availability of Chhattisgarh cuisine, not only this the blog has well defined recipes with good amount of pattern and pictures, which provides an easy way to understand about the food and culture. This website is having relevant information required for the promotion of the local cuisine. All the questionnaires are strongly agreed by the researcher except culinary heritage of Chhattisgarh.

### HYPOTHESIS TESTING

The average Mode for responses will judge the availability of food related information on the online platform about Chhattisgarh Cuisine. Also this figure will help in acceptance and rejection of null hypothesis.

#### Statistics

		Chhattisgarh Cuisine Information is available	Link for 'what to eat' or Chhattisgarh cuisine was available	Recipes are available	Culinary article or information of culinary heritage was available	Culinary information was available in pictorial form
N	Valid	44	44	44	44	44
	Missing	0	0	0	0	0
Mode		1	2	1	1	1

$$\text{Therefore } M_0 = \frac{M_01 + M_02 + M_03 + M_04 + M_05}{5}$$

$$M_0 = 1.2$$

$$M_0 < 3$$

Therefore, null hypothesis, the available information on the online platform is sufficient to promote local culinary heritage of Chhattisgarh got rejected and alternative hypothesis; the available information on the online platform is not sufficient to promote local culinary heritage of Chhattisgarh got accepted.

### CONCLUSION

India is a rich & diversified country not in the manner of culture, religion and tradition but also in the geographical limits and these all 4 perspectives make India unique and different from other countries. There are around 29 states which are equally contributing their soul

to promote Indian cuisine at world level. That can be clearly seen in Chhattisgarh state tagline "DHAAN KE KATORA" which mean rice bowl of India. The state of Chhattisgarh comprises of 27 districts and each district has its own food habits and heritage. Similarly, Dantewada is having its own tribal cuisine which needs to be promoted along with Chhattisgarh cuisine; hence this will have a positive impact not only on the food and its culture; but opens a way of opportunity to the local youth in terms of employment which result into the socio-economic upliftment of the tribe in the area. The researchers came to a conclusion that "The information given on online platforms are not enough to promote the Chhattisgarh cuisine and there is urgent need to upgrade the websites of Chhattisgarh tourism, Chhattisgarh govt. Website & other District Headquarters websites. Because these website are viewed by the most people visiting Chhattisgarh and people or living in the it's geographical boundaries."

### FURTHER SCOPE OF STUDY

The report of the researchers suggested that the cuisine of Chhattisgarh is very vast in its own significance and nature. There are many ways to promote the local cuisine of Chhattisgarh some of the best examples –

1. Promotion through catalogues.
2. Through Documentation of local culinary recipes.
3. By conducting culinary research conferences time to time.
4. By conducting food exhibitions at large scale.
5. By promoting tribal cuisine of Chhattisgarh.

### LIMITATIONS

This report is prepared by the researcher without any financial aid. Due time constrains, researcher not able to visit the entire region. This report is written at undergraduate level, so aspect of this culinary heritage can be taken at Doctoral and Masters level studies.

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# 34

## CHAPTER

### Dehydrated Marinade for Meats and Vegetables Used as a Natural Flavour Enhancer

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#### ABSTRACT

*A novel, fat free dehydrated marinade for meats and vegetables is disclosed which combines best features of a dry rub and marinades as a “two-in-one product”. It consists of puree of raw onion, fresh tomato and fresh garlic; red chilli powder, black pepper powder, lemon juice, lemon zest (outer skin), fresh ripe papaya puree and salt mixed in specific ratios followed by dehydration. The invention for the first time discloses use of ripe papaya as a rich source of enzymes in a marinade and contains ripe papaya as a major ingredient (34%). The ingredients are mixed in specific ratios and processed to prepare the marinade as a free flowing particulate mixture, comparable on nano scale.*

*The marinade can be used directly as a solid powder that is coated on the food or some water can be added to it to instantly make a liquid marinade that is brushed or sprayed on the food. The spice rub or marinade can also be used as flavor enhancers and additive to curries, yogurts lentils to enhance the flavouring.*

**Keywords:** *Marinate, Vegetables, Flavour Enhancer, Free Flowing Rub, Organic Free of Preservative, Mono Sodium Gultamate.*

#### INTRODUCTION

The food industry which is an ever growing industry has a large diverse base for study, invention, and creativity and in this field, each ingredient has its own potential value and usage. We in this experiment have played with basic ingredients used in day to day kitchens to create a product of quality.

Though the market is filled with a lot of permutations and combinations of masalas and spices made by combining whole spices and grinding them at low temperatures various whole and ground spices available e.g. chat masala, channa masala, curry powder, Kitchen king etc. These are a combination of whole spice ingredients ground together and created for ready to use flavouring agents for food prepared in the kitchens. Also, there are those that are available in the sauce and syrup format, for example, barbecue sauce, oyster sauce

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etc. All of these commercially available packaged productions are totally different from the one produced by us.

The aim is that the modern trends today require us to be able to find products that make our life easier and also cost effective, and time consumed in preparing labourious masala and required by our cuisine is cut in half due to use of ready made spices and powders.

All these perform the same function that is increasing the taste of all natural raw food ingredients, the difference here in our product is that we have in our attempt used all natural ingredients that one would require preparing a cooked masala that one would go about preparing meat and vegetables converted it into a dry rub powder which now can be used in grams and will impart its natural flavours sufficiently to create a flavourful grilled product. It can also be utilised as a flavour enhancer for vegetables, dals as a direct tadka agents with no requirement for onion, garlic, tomatoes.

We have used ingredients from their natural state i.e. onion pulp tomato, garlic, salt, chilli and lemon, papain as a tenderiser, without addition of any mono sodium glutamate, synthetic acids or preservatives, essence, or extracts.

**Dry Rub-** A dry rub is literally a handful (or more) of dry seasonings that are rubbed onto the meat before it is barbecued and adds both flavor and texture. There are pre-made dry rubs that can be purchased or one can easily prepare a dry rub simply by mixing various seasonings like garlic powder, onion powder, parsley flakes, paprika, rosemary, sage, thyme and others. The type of rub prepared will depend entirely on the type of meat that a person plans to cook. e. Dry rubs offer the advantage of easy portability for example on camping trips. Compactness and also quick flavor enhancement since they can be used right away.

They are good for sealing heat and juiciness of meats, thus enhancing flavor and taste, and preventing loss of taste by overcooking. Suitable for beef, chicken, lamb, shellfish, pork and turkey.

**Marinades-** are liquid based solutions which are either pre-made or homemade, in which meat or vegetables literally “sit in” before they are put onto the barbecue and grilled. Since they are made of liquid, the meat has to be placed into a plastic zip lock bag or plastic container with a lid along with the marinade for a period of time so that the flavoring has a chance to sink into the meat. Marinating meat makes it tender. Many different types of meat can be marinated, and even vegetables can be soaked in a marinade, which makes it very versatile. Marinades offer the advantage of being easy to use and apply and effective in making meat soft and more palatable and even suitable for vegetables.

One of the major steps forward in taste science in recent decades has been the discovery and exploration of distinct taste receptors on the human tongue. Our taste buds have separate receptors for, at the very least, five basic tastes: sweet, salty, sour, bitter and umami (savory).

**ii. Material** used and production thereafter. Our product consists of puree of raw onion, fresh tomato, fresh garlic, red chili powder, black pepper powder, lemon juice, lemon zest (outer skin), fresh ripe papaya puree and salt which have been mixed in specific ratios followed by dehydration to give a dry marinade product. The product is very easy to use, has long shelf life and eliminates the need for use of common herbs and vegetables such as onion, garlic and tomato which are the two most widely used ingredients in dishes worldwide. The marinade can be used directly in solid form coated on the food or some water can be added to it to instantly make a liquid that is brushed or sprayed on the food.

### 1. Raw Material Used

S. No.	Ingredients	Optimal %
1	Raw Onion Puree	33%
2	Fresh Tomato Puree	18%
3	Fresh Garlic puree	6%
4	Dry Red Chili Powdered	1%
5	Black pepper powder	0.5%
6	Lemon Juice	1.8 %
7	Lemon zest (outer skin)	0.5%
8	Fresh Ripe papaya Puree	34%
9	Salt (table salt)	5%
10	Stevia	0.2%
11	Water	Equal ratio

### 2. Method of Preparation

The method of preparation involves the following steps:

- Mixing of ingredients in specific ratios: ingredients are taken in the optimal ratios as indicated 5 in Table 1 above.
- Addition of water and boiling: Equal amount of water i.e. in ratio of 1:1 by weight, is added to the mixture and same is boiled for 4 hours.
- Filtration using muslin cloth: Thereafter, the mixture was filtered using muslin cloth to remove excess water and recover the solid ingredients.
- Dehydration: The solid ingredient mixture was dehydrated by heating in hot air at 50 degree Celsius for about 15-20 hours, resulting in a free flowing dry granular mixture.

The product was again dehydrated for 1 day. After a day of dehydration, 30 grams of the powder was obtained as a free flowing particulate mixture.

### 3. Results

**Yield-** about 2-3%, indicating a very good compactness of the product, enabling good portability and use in very less quantities. Further, owing to highly concentrated nature, use of small quantities can lead to desired flavor. The product is thus prepared from natural ingredients with no additives or chemicals to enhance the flavours.

**Advantages:** Portability and ease of use- The product in dry form offers the benefits of portability and ease of use like a dry rub and also the flavor and quick penetration of foods just like a marinade.

**Stability-** product has very good shelf life of several months. As a result it can be prepared in large quantities and shipped to faraway places. Use of vacuum packing can eliminate the need for use of preservatives and further enhance the shelf life of the product. Till date from date of experiment it has been nine months and the rub has neither deteriorated in

texture, taste or its free flow nature. The storage of course being in an air tight container and not being left open attracts moisture.

**Remarkable flavor and texture enhancing properties-** The unique combination of herbs in specific ratios in the marinade help to impart a flavor and texture to foods which significantly improves the 'acceptance score' of foods and dishes.

Use of fresh ripe papaya as a major ingredient (34%) and as a source of enzymes is unique and not disclosed in any marinade till date. It results in remarkably effective texture enhancing properties in a cost effective manner. Papain—a plant enzyme obtained from the papaya—is the active ingredient in most commercial tenderizers. The proteolytic action of the enzyme cleaves or breaks apart the muscle fiber proteins and connective tissue of meat by hydrolysis—in a manner similar to that of digestion—which makes food more absorbable. Because the use of meat tenderizers containing papain has grown to large proportions studies were conducted on the effect of time of papain application prior to cooking and the effect of temperature on protein hydrolysis by papain.

Like said before, papain breaks down proteins by adding a water molecule to the proteins that make up the tough fibers in meat, and the connective tissue. When beef is tough, it is simply because the cow had strong muscles and was healthy, so it caused its meat to have strong fibers and tough connective tissue. Papain is usually in meat tenderizers, along with other preserving factors such as salt, to break down these tough connecting fibers. The papain reacts with the connective fibers, and connects with the proteins that make up these fibers, and the enzyme breaks apart the proteins through hydrolysis (adding a water molecule.) The great thing about papain is that it is active in hot temperatures, which enables it to still tenderize your meat while it is cooking, unlike other tenderizers. [7]

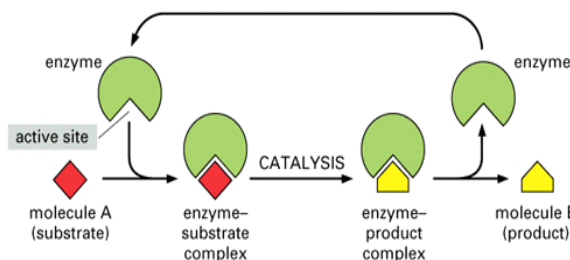


Figure 1: [8] The Power of Papaya on Meat-Enzymatic Reaction

Most experiments have been made using fruit enzymes as tenderizers but use of vegetable spices and fruit as a combination has not been introduced without the use of chemicals, preservatives or enzymes derived from fruits as extracts.

We in our invention have formulated a recipe accordingly to impart to the foods the required flavours of salt, sugar and spice and the unique feature being there are no chemicals enzymes, preservatives, mono sodium glutamate added to our product .

#### 4. SENSORY EVALUATION

**Sensory characteristics:** The rub on initial tasting gives you a hint of chilli and lime with just enough salt, the aroma being very pleasant. On addition of the rub there is no fear of

increasing the sodium content in any foods unlike the taste enhancers found in the market which on addition into food increase the salt content and the MSG in the product leave a chemical aftertaste. Whereas this rub emits pleasant aromas and the taste is not overbearing letting us taste the food ingredients in its natural taste, umami flavour.

The rub gives out the taste of roasted garlic onions tomatoes with hints of spices very appetizing and tantalizing.

The rub is capable of taking on flavours and combining itself with addition of herbs like basil, rosemary, curry leaves, if one is desirous of increasing salt, chilli, or any other spice addition it is versatile and will blend well with most ingredients.

On feedback from user's chefs, professors, teachers within the university who tasted the rub directly came up with comments such as ;

1. Very good as pizza topping
2. Very good to enhance the taste of bland foods as a sprinkler.
3. Soup tastemaker (like the maggi seasoning cube but with much lesser salt).

Everyone who tasted the product had only positive feedbacks for us, they said could easily make out the chilli, lime, garlic on tasting the rub beyond which they could not identify the ingredients. The aroma was found very appealing and pleasing. The product as a marinade has also been tested and results were favourable there too.

#### **Further Testing of the Marinade on Food Products**

Use of the marinade on food products like chicken, paneer, and vegetable was carried out and the quantum of powder used for about 200gms was not even a gram or two, the flavours got imparted with just that amount. The chicken and paneer were left in with the marinade for half an hour before being subjected to a tandoor (hot clay oven fuelled by charcoal), the prepared food product were just the right flavor and colour as desired. The salt was controlled and also having no artificial colour or pigments the product had a natural off white creamish brown finish very pleasant and natural.

This rub was given to people to also add to their plain yogurt and sample the taste as a flavor enhancer it worked as that too. Also in Indian cooking dals and lentil require tempering this product can easily replace the use of onion tomatoes and garlic that goes into the tempering. Also the marinade rub spice powder is highly stable and shelf life in airtight container is long lasting.

#### **CONCLUSION**

The dehydrated marinade rub catering to the modern food trends of convenience foods which is fat free and made from all natural ingredients is commercially viable and acceptable with a good shelf life. Also a cost effective product as the ingredients used are not the expensive spices such as cardamom, cinnamon, cloves, saffron, etc. are not included in the product.

Low on salt, no preservatives, or commercial chemical acids used, totally organic and safe will have no side effect of excessive use as mono sodium glutamate.

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