AN EMPIRICAL ANALYSIS OF INVESTIGATING CHEF'S PERCEPTION TOWARDS FOOD PREPARATION PRACTICES IN ALL CLASSIFIED HOTELS OF ODISHA, INDIA

Patitapaban Mohanty¹

Abstract. This paper attempt to find out chef's perceptions of food preparation practices in some of the well-known hotels in Odisha. The most pivotal question to be examined in this study is the day to day culinary practices in preparing the variety of foods in order to satisfy the taste buds of different guest staying and coming to the hotels in Odisha. Though the modern-day hotels are emphasizing more on personalized services, such as luxury accommodations, lavish dining, intimate hospitality, but food preparation practices which are core function of the hotels have taken a back seat in Odisha. Hence in this context, it is the high time for the chefs and even the management to investigate the food preparation practices which comes in the back of the house operation (BOH), and the other aspects like food quality, safety, sanitation, hygiene, standardization, menu planning associated with it also to be scanned completely.

Keywords: Food preparation; practices; investigation; perceptions; hotels.

1. INTRODUCTION

Since a decade, there has been a radical change noticed in many industries like education, telecom, information technology as well as in-service sectors. Today, the service sector has emerged as a big giant globally and Odisha has no exception in this context. Above all Odisha's tourism has enough resources to contribute to tourists globally and locally. Both the hospitality and tourism industries are complimentary with each other and contribute the maximum revenue to the state. The modernization has touched every aspect of Odisha, and the hospitality sectors in Odisha gaining well-paced momentum in the recent past. Odisha has already showcased its potential by conducting the national mega event FHRAI (Federation of Hospitality and Restaurant Association of India) golden jubilee celebration by assembling thousands of national as well as international hoteliers and tourists from all corners of the universe. However recently, Bhubaneswar, the state capital of Odisha, has been top listed as the emerging smart city of India.

Correspondence:

Email: richhmohanty@gmail.com

¹ Siksha 'O' Anusandhan University, Bhubaneswar Odisha, India

Undoubtedly Odisha's tourism is the major growth engine in terms of socio-economic development, employment generation, and the abolishment of poverty from the state. Though Odisha's tourism is in a hidden stage, it has not fully explored to a greater extent, but there is an inherent and immense potential of tourism resources in forms of spiritual, natural, heritage, wildlife, beach, and tribal tourism in this state. In the recent era, the Govt. authority of this state has understood its pivotal role in enhancing the speedier, sustainable and inclusive growth for this state. It has paved the way for growth and development of other sectors like a hotel, restaurants, food service, transport, retail, entertainment, tour, and travel.

The marketing strategy of the Ministry of Tourism, Government of India in the form of "Incredible *India*" and "*Atithi Devo bhava*" has helped immensely the inflow of domestic and global tourists into Odisha, simultaneously has propelled the growth of the hotel industry in the state. Recently Odisha tourism has added another feather to its cap by obtaining the status of "Biju Patnaik International Airport" and conducting FHRAI golden jubilee the convention has showcased the robust growth of hospitality and tourism in the state. The state is also emerging in the MICE industry which has also fueled the rapid growth of hotel sectors. The domestic hospitality group like Mayfair, Oberoi, Swosti Group, ITC, have marked their presence all through the Odisha, and other major international hospitality chains like Marriot international, Radisson Blue, are foraying in Odisha market.

Over the last two decades, the hospitality and tourism industry has attracted many scholars and research practitioners and has offered immense scope for different types of research. And India is the emerging platform and in the context of Odisha, very few conceptual and empirical researches have done on hospitality management literature. Due to the rapidly changing nature of hospitality sectors, there is a fervor interest among the researchers in the context of food and beverage management and other departments. To date more and more literature has focused on service-related topics mostly on hotels of western countries, but very less literature on the food preparation or culinary practices and other related issues in Indian context as well as Odisha. Hence in this study, the attempt has been made to bridge that gap by investigating the various culinary practices in terms of food safety, quality, hygiene and other sensitive aspects of these grey areas that will beneficiary in the future for the sake of research and development. There are two objectives of this study, (1) To find out the various prevailing food preparation practices in hotels of Odisha; (2) To identify and to investigate the chef's perceptions towards culinary practices that will help to set a standard framework for achieving maximum guest satisfaction.

The scope of this research paper entails the wide key areas in hospitality as well as foodservice sectors. The study will differentiate the hotels in terms of foodservice quality, food preparation practices, food safety, hygiene, etc., also will help in setting the basic parameters and standardization need for the future assessment and approval. Ultimately this study will set up a benchmark in hospitality sectors by awakening, the staff training and development, revamping and restructuring the standard operating procedure, providing an alarming set to the management as well as enhancing customer satisfaction.

2. LITERATURE REVIEW

In today's competitive market, the hospitality industries always try their best to make the customer happy and satisfied by providing quality food and service. In this present era, the modern concept of the hotel is not just providing great facilities, better amenities and personalized service rather quality, hygienic, and delicious food, and food is regarded as the central axis upon which customer satisfaction and success of the hospitality industry depends. It is the uniqueness and authenticity of the food that has the cohesive power to attract the customers into the hotel. Nowadays the customers are more discerning by nature seeking the value for money, better quality service as well as quality and hygienic food prepared in a sanitized environment. So, the importance of food in different hotels can never be neglected or ignored. The overall service experience of a guest is fulfilled when the hotel provides quality food, value for money, variety of dishes, the ambiance and the presentation of food.

Nield, Kozak, and LeGrys (2000) revealed that significant differences existed between three tourist groups' satisfaction perceptions of value for money, quality of food, number of dishes, the standard of food service, variety of dishes, presentation of food and speed of service in general, and of bread, coffee, meat and soup in particular. Though the service may be personalized or exclusive which is intangible by nature but at the last it is the food which actually pleases and satisfy the senses of customers and in the long-run costumers become the valued patronage to the establishment. Hence Alibegovic, Hawkins, and Parmar (2009) argued that success within the hotel industry lies with customer satisfaction which is the result of the good delivery of products or services. From the customer as well as organization point of view it is always demanded the quality, hygienic and consistent food at all times which calls for its preparation practices and procedures, techniques and principles. Rodger (2011) emphasized on the food production demands competencies in both natural science and management principles. The study suggested framework includes the following areas of research: technological innovation process design (including Industrial Cuisine), product development (including Molecular Gastronomy, Industrial Gastronomy and Functional Meal) and risk management (including quantitative risk assessment and predictive microbiology).

Though the hospitality industry has changed drastically over some years, still, the traditional cooking methods and practices are still prevailing, simultaneously the changing taste pattern of customers, dining out a concept and disposable income has revolutionized the food and its preparation to a greater extent. Now the innovativeness and uniqueness of food have grabbed all areas of preparation. Food preparation is very much similar to culinary art or cuisine, which has originated in the Latin word "culina" or kitchen, which can be defined as something related to or to connect with cooking or kitchen. Similarly, the French word "cuisine" is the meaning of method or way of preparing the food or style of cooking. Food preparation has imbibed the quality of both scientific and artistic skills which involves the physical and chemical changes taking place at any time. Even the food preparation entails multiple ranges of methods, tools and techniques and a combination of ingredients to produce a finished product. Similarly, it is the procedure of selecting, measuring and blending of different ingredients to achieve the desired outcome. And the desired outcome is influenced by the choices of raw materials,

environment, tools, and skills or professionalism of a person during the production process. As it is the prime objective of food preparation practices emphasizing more on quality and hygiene, that's why the food production control process is strictly followed and adhered to by the cook or chefs. The entire food preparation process is fulfilled through the sensible and suitable procuring of raw materials, the right quality and the right quantity of ingredients received, proper management of storing, issuing of exact ingredients, pre-preparation, the actual cooking of food, and the service of the finished product. It is a cyclic process practiced universally for smooth and effective operation of the kitchen department.

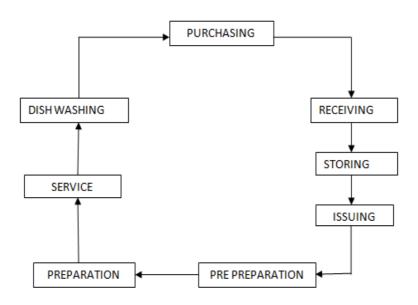


Figure 1 Food and Beverage Management Cyclic Process

Source: Analysis Results, 2018

Food preparation process could not happen until unless the application of heat and methods of cooking are induced. There is a science behind the food preparation process which involves the different application of heat like convection, conduction and radiation and different methods of cooking. The chief aim of food preparation is to produce a complete dish, for this the different raw materials are required and each raw material has their own characteristics to play and influence.

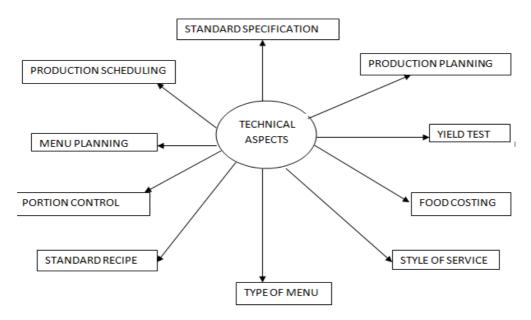


Figure 2 Various technical aspects involved in food preparation process Source: Result Analysis, 2017

The practices of food preparation in hotels consists of a series of technical and non-technical mechanism that the every food undergoes it. Food preparation practices of different parameters which have to be maintained for the desired product to be a consistent product. These are like flavor, texture, aroma, consistency, palatability, taste, and digestibility.

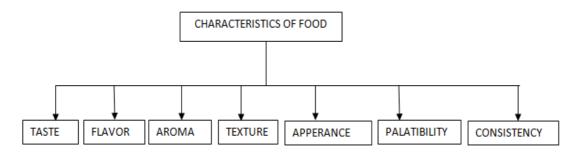


Figure 3. Various characteristics of food *Source:* Author's own design.

As the food preparation process happens only in kitchen, hence the kitchen management greatly influence on the food practices, like the size of the kitchen staff, equipment, kitchen design, layout and the types of operation and types of menu. After

Second World War, there is a revolutionary change in the kitchen to simplify the breakdown of work to ease the operation. Most notable contribution done by Cesar Ritz and Auguste Escoffier who introduced the *partie* system or brigade system in the world of kitchen, which is still prevailing in all food service industry. The advantage of this system is efficiency, economy, safety, and esprit de corps. Even the practices of food production before and after calls for the most important steps like food safety, hygiene, quality management, and HACCP implementation.

METHODOLOGY

This study pertaining to the various major cities and towns are showcased in this map which is derived from the Google source.

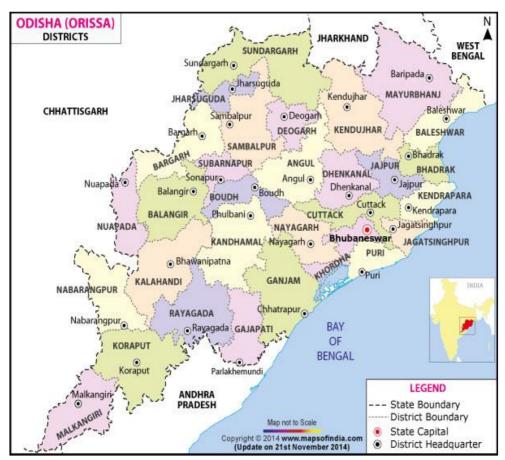


Figure 4. Map of Odisha showing different districts.

Source: Google.com

To initiate the collection of data, Hotel and Restaurant Association of Odisha (HARO), as well as annual activities, report of the government of Odisha, department of tourism is strictly followed for relevance and accuracy for the same. For sampling purposes, 180 chefs and cooks

were contacted through web-based mail, out of which 130 chefs retrieved back to participate in the survey. All the respondents represent the various categories of hotels ranging from established and non-established status. The respondents belong to the hotels of various categories ranging from five stars to 3 stars, scattered in various parts of the Odisha state, like Bhubaneswar, Cuttack, Puri, Rourkela, Sambalpur, Berhampur, Bolangir, Konark, Balasore, Bhadrak, etc. A structured close-ended questionnaire having the 19 parameters based on Likert - type 5 - point scale, 5-strongly agree, 4-agree, 3-neutral, 2-strongly disagree, 1-disagree are used.

Odisha is such a state where there is a tremendous repository of tourism resources in every form. And in recent years, tourism in Odisha has developed due to the better infrastructure, conducive Govt. policies; improve existing tourists' destinations and development of new tourist circuits and also the robust growth of the hospitality industry. Another major reason for demand in hospitality sectors in the state is due to the growth and development of information technology, telecom, retail, and other allied sectors. Similarly, Government of Odisha's "soul of incredible India" campaign and "Athithi Devo baba" (Guest is God) the concept has ushered the flow of domestic as well as an international tourist and consequently the hotel industry. There are a good number of various classified hotels from budget hotel to five-star hotels scattered in and around the state of Odisha. Over the last two decades the number of hotels has increased considerably with a CAGR of 5.4%. Some of the most popular brands of hotels are located in the state capital of Odisha, Bhubaneswar is 'The Trident' (Oberoi group of hotels), Mayfair hotel, Hotel, Kalinga Ashok (ITDC group), Swosti premium and Swosti Grand (Swosti groups of Hotels), Hotel Hindustan International (HHI), Hotel Suryanshu, Hotel Sandy's tower, VITS hotel (Kamat group), ITC Fortune Shimo, etc. Many national and international group of hotels are piling up for the future openings in capitals like Welcome heritage (ITC group), Radisson Plaza, Marriot international, Kamat group of hotels, BMR group of hotels.

Like the hotel the industry is increasing rapidly in Odisha, similarly, the food & taste patterns of discerning customers have changed drastically over the years. This has made a revolutionary change in food preparation practices in the kitchen of every hotel. Most of the hotels in Bhubaneswar have high-end restaurants that cater to the elite class of customers. The restaurants provide a la carte style of food order and also some hotels provide the buffet style of food. Multi-cuisine concept prevails in most of the hotels in Odisha, and also some hotels also stick to the traditional Odia foods.

The cooks, chefs and other kitchen staffs in hotels in Odisha are not up to the standards in terms of professionalism and skills. (Walker, 2009) emphasized that hospitality the industry is facing major challenges of having well trained and competent employees in all areas of food production. And the professionalism and skills can be honed by imparting the constant training on a regular basis which can lead to efficient food preparation and ultimately the quality and consistency can be achieved. Further Pun and Ho (2001) recognized efficiency and quality as key components of any business strategies, hence the efficiency in part of employees working in food production department achieves the goal of quality enhancement.

Preparation of foods go through the same procedures, but the use of quality ingredients, preparation of consistency food items, implementation of food safety and hygiene of employees and adherence to the HACCP program is always a matter of concerns. So in this context the relation of food safety and HACCP program never can be ignored as food is the most perishable item.

HACCP is one of the effective and efficient ways of ensuring food safety which is designed in every segment of foodservice organization. This is one of the innovative programs that can be implemented from harvesting to the finished product on the table. As quality food is the most ultimate goal of preparation practices, the HACCP is the most effective tool to achieve the same objectives. Apart from the very few hotels, most of the hotels do not follow the managerial prospects or SOP of food preparation like production planning, and forecasting, production scheduling, menu planning, and menu engineering, standard recipe and the portion control. Hence the culinary practices are adversely affected by these functions resulting in an inconsistent finished food product.

Considering the above stated objectives, two hypotheses have been developed for the sake of exploring or investigating the different prevailing food preparation practices in various hotels, simultaneously finding the quality, hygiene, safety and sanitized food preparation practices among the hotels and achieving the better guest satisfaction through the aesthetic and authenticity of food preparation practices. **Hypothesis 1** A standard set of food preparation practices exist which is commonly used in every hotel. **Hypothesis 2** There are both positive and contradictory relationship between food preparation practices and different hotel characteristics like classification, location, year of operation, occupancy level, number of employees, etc.

4. RESULTS AND DISCUSSION

Table 1 presents the detailed study about the various demographic characteristics of hotels meant for this study, having different parameters like star category, location, year of operation, occupancy level and a number of employees. The findings from this table show that there is a huge spread of three-star hotel having the percentage of 50%, and the most of hotels around the percentage of 33% located in the commercial places of the state, and the half of the hotels having occupancy level 50 %., indicating a healthy growth trajectory of the hotel industry in Odisha.

Table 2 shows the descriptive statistics of the variables containing the mean and standard deviation. It is clearly shown in the table that the range of standard deviation for each particular variable is less than 1, which means values in the data set are very close to the mean spread of the data set.

Table 1 Demographic characteristics of Hotels (N=130)

Parameters	Number of hotels	Percentage (%)
Classification of hotels		
5 Star	2	1.53
4 Star	15	11.53
3 Star	66	50.76
2 Star	37	28.46
		Location
City	27	20.76
Downtown	32	24.61
Commercial	43	33.07
Suburban	28	21.53
		Year of Operations
<5 Years	47	36.15
5-10	52	40
10-15	22	16.92
15-20	09	6.92
Occupancy Level (%)		
< 50%	55	42.30
50%-60%	42	32.30
60%-70%	24	18.46
70%-80%	09	6.92
	Em	ployees (Numbers)
<50	72	55.38
50-100	41	31.53
100-200	15	11.53
200-300	02	1.53

Source: Compiled primary data (2018).

Table 2. Descriptive Statistics (N=130)

	Min.	Max.	Mean	Std. Deviation
Mise en place	4.00	5.00	4.6000	.49179
Production scheduling	4.00	5.00	4.4615	.50045
Production planning	4.00	5.00	4.5077	.50187
Standard recipe	4.00	5.00	4.5538	.49902
Food safety	4.00	5.00	4.5462	.49979
Hygienic condition	2.00	5.00	4.3615	.63495
HACCP rules	1.00	5.00	2.9846	.92330
Menu planning	1.00	5.00	2.7000	.87736
Storing of ing	2.00	5.00	4.4923	.54625
Right temp	2.00	5.00	4.3846	.69756
Proper equipment	2.00	5.00	4.3846	.62734

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Quality ing	2.00	5.00	4.1231	.77775
Measurement of ing	2.00	5.00	4.2692	.71299
Yield test	1.00	5.00	2.5385	.89921
Style of service	1.00	5.00	2.5538	.94057
Bulk cooking	2.00	5.00	4.3000	.71148
Consistency	2.00	5.00	4.4308	.56976
Palatability	2.00	5.00	4.4154	.64441
Professional staffs	2.00	5.00	4.4615	.62449
Zscore: Mise en place	-1.22003	.81335	.0000000	1.00000000
Valid N (listwise)				

Source: Compiled primary data (2018)

Table 3. Total Variance Explained

Comp.	Initial Eigenvalues			Extraction Sums of Squared			
Total					Loadings		
	Total	% of	Cumulative	Total	% of	Cumulativ	
		Variance	%		Variance	e %	
1	2.214	11.653	11.653	2.214	11.653	11.653	
2	1.763	9.281	20.934	1.763	9.281	20.934	
3	1.611	8.481	29.415	1.611	8.481	29.415	
4	1.487	7.827	37.242	1.487	7.827	37.242	
5	1.337	7.036	44.277	1.337	7.036	44.277	
6	1.195	6.287	50.564	1.195	6.287	50.564	
7	1.185	6.239	56.803	1.185	6.239	56.803	
8	1.072	5.640	62.443	1.072	5.640	62.443	
9	.946	4.979	67.422				
10	.903	4.752	72.174			_	
11	.876	4.611	76.785			_	
12	.818	4.304	81.089				
13	.759	3.993	85.082				
14	.679	3.573	88.654			_	
15	.553	2.909	91.563	,	•		
16	.470	2.476	94.039				
17	.423	2.224	96.263				
18	.374	1.969	98.232				
19	.336	1.768	100.000				

Source: Compiled primary data (2018)

Table 3 is all about the factor analysis of the various variables taken into consideration in this study, relating to hypothesis 1, there is a standard set of food preparation practices which are commonly used in every hotel. The Eigenvalues of the following variables like production scheduling, production planning, standard recipe, food safety, hygienic condition, HACCP

rule and regulations, menu the planning process, and storing of different ingredients are between 1, which means, these are the standard set of food preparation practices.

Table 4. Factor Analysis

		Sum of Squares	df	Mean Square	F	Sig.
Mise en place	Between Groups	0.719	2	0.360	1.498	0.227
	Within Groups	30.481	127	0.240		
	Total	31.200	129			
Production	Between Groups	1.722	2	0.861	3.576	0.031
scheduling	1					
	Within Groups	30.585	127	0.241		
	Total	32.308	129			
Production planning	Between Groups	1.224	2	0.612	2.485	0.087
	Within Groups	31.269	127	0.246		
	Total	32.492	129			
Standard recipe	Between Groups	.150	2	0.075	0.297	0.743
	Within Groups	31.973	127	0.252		
	Total	32.123	129			
Food safety	Between Groups	.720	2	0.360	1.450	0.238
	Within Groups	31.503	127	0.248		
	Total	32.223	129	·		
Hygienic condition	Between Groups	.117	2	0.058	0.143	0.867
	Within Groups	51.891	127	0.409		
	Total	52.008	129			
HACCP rules	Between Groups	.035	2	0.017	0.020	0.980
	Within Groups	109.934	127	0.866		
	Total	109.969	129			
Menu planning	Between Groups	1.557	2	0.779	1.012	0.366
	Within Groups	97.743	127	0.770		
	Total	99.300	129			
Storing of ing	Between Groups	2.113	2	1.056	3.687	0.028
	Within Groups	36.380	127	0.286		
	Total	38.492	129		•	
Right temp	Between Groups	1.401	2	0.700	1.450	0.239
	Within Groups	61.368	127	0.483		
	Total	62.769	129			
Proper equipment	Between Groups	.637	2	0.318	0.807	0.449
	Within Groups	50.132	127	0.395		

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Quality ing	Between Groups	1.973	2	0.987	1.647	.197
	Within Groups	76.058	127	0.599		
	Total	78.031	129			
Measurement of ing	Between Groups	.068	2	0.034	.066	.936
	Within Groups	65.508	127	0.516		
	Total	65.577	129			
Yield test	Between Groups	10.054	2	5.027	6.774	.002
	Within Groups	94.254	127	.742		
	Total	104.308	129			
Style of service	Between Groups	2.445	2	1.222	1.390	.253
	Within Groups	111.678	127	0.879		
	Total	114.123	129			
Bulk cooking	Between Groups	5.339	2	2.669	5.654	.004
	Within Groups	59.961	127	0.472		
	Total	65.300	129			
Consistency	Between Groups	1.101	2	0.550	1.714	.184
	Within Groups	40.776	127	0.321		
	Total	41.877	129			
Palatability	Between Groups	3.709	2	1.855	4.724	.011
	Within Groups	49.860	127	0.393		
	Total	53.569	129			

Source: Compiled primary data (2018)

From the above table 4, the various f values of different factors that directly correlate the hypothesis 2, that means there is a positive and contradictory relationship between the various factors and the hotel characteristics and it has been clearly defined in the above table where the f values are in between the 1 and 5 as according to the five-point Likert scale. Hence whatever the characteristics of the hotels, factors like mise-en-place, standard recipe, style of service, consistency, menu planning, measurement of ingredients, hygienic conditions, HACCP rules are the significant practices parameters prevailing in all most all categories of hotels in Odisha.

5. CONCLUSION

The above empirical study have the two outcomes that can be summarized in the following manners, first one is food preparation practices or culinary practices is a complex task or process going through a series of various technical and non-technical procedures in order to finish a product that ultimately leads to guest satisfaction. And this complex task varies from hotel to hotel depending upon the various tangible and intangible dimensions reacting upon it. Similarly, the second one is food preparation practices differ from hotel to hotel, and influenced by the various parameters like location, size of the hotels, occupancy level, and year of establishment, number of employees and professional skills.

Though food and beverages service practices have been studied before in international and Indian context, but till now there are no academic and empirical studies has not been carried out on food preparation practices particularly in the hotel industry of Odisha. Hence this study will envisage by unfolding a new horizon of knowledge and wisdom in food preparation areas and various new dimensions have been used in this study will help the future researcher and practitioner to go deeply for the success of the hotel organization and product and service offerings to the guests.

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