

Molecular Gastronomy: An Indian Perspective

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Abstract

“Molecular Gastronomy” is a perfect blend of techniques and infusion of Science with food to make it more interesting. Fortunately, elements like media, knowledge and travel has helped the application a lot to gain popularity and acceptance worldwide. There have various research on Molecular gastronomy and its application in different cuisines, Indian cuisine is no exception to this.

This study is an exploratory study as, this particular research specify the awareness of molecular gastronomy in Indian consumer.

The findings of his research suggests that the Indian customers ready to accept the concept. The study also suggests that the application and implementation of the concept in India is possible. This study also investigates the sustainability of the idea of involving Indian food with molecular gastronomy.

Keywords: Molecular Gastronomy, Indian Cuisine

Introduction

The term Molecular Gastronomy was born in 1992 when an English teacher of cookery, Elizabeth Thomas, proposed a workshop in which professional cooks could learn about the physics and chemistry of cooking. It is to design and invent new dishes with the help of the acquired knowledge about food and cooking processes. Molecular Gastronomy blends physics and chemistry to transform the tastes and textures of food. New and innovative dining experiences. Molecular gastronomy principles, practices and provisions items have captured the intellect of both the chefs and their customers worldwide. Although initially intended to cater for the high purpose of the gourmet market, molecular gastronomy has been welcomed in assorted areas of the hospitality industry. Useful dining restaurants, café and bistros, avail venues, specialist

bars, prestigious and mainstream hotels; and all the more establishments that specialize in pastry and desserts are incorporating this style of cuisine to assorted degrees into their operations.

As any other fields, molecular gastronomy also attracted much criticism from food writers and chefs around the world. Many established chefs did not accept molecular gastronomy as scientific gastronomic phenomena but labelled it as temporary style of cuisine. There are many techniques used in molecular gastronomy such as foam, smoke, changing texture of food, spherification, emulsification, flavor pairing, funny etc.

Some chefs thinks the technique might damages the Indian food flavors as they are very delicate and yet complex. Molecular gastronomy as a chemical is absolutely safe. It's been tried and tasted too. But right training, talent and usage is very important otherwise it will adverse on health. Some of the popular restaurant in India who served molecular food are Farzi café, Pink poppadum and Masala library etc.

Molecular food technique is completely different from fusion food which many people often consider as same. This study aims at viewing the decision of demonetization in the eyes of the restaurant industry and has considered the perceptions of the restaurant owners and customers on various aspects of the topic.

LITERATURE REVIEW

- John Cousins, Kevin O’Gorman, and Marc Stierand, (2010) in “International Journal of Contemporary Hospitality Management”, Vol. 22 Issue: 3, pp.399-415, ISSN: 0959-6119 wrote paper on “Molecular gastronomy: cuisine innovation or modern day al-chemy”. The paper explore the phenomenon of molecular gastronomy by conducting empirical re-

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search focusing on renowned chefs. It summarized past culinary innovations, focuses on the origins and evolution of molecular gastronomy.

- Mathew carter and Professor Harmon in world press website publish paper, 2011, On “Molecular Gastronomy: Food of the Future? “The paper explore information’s about the molecular gastronomy food, the chef’s information, history of them. The paper also have zest of the well know chefs interviews and opinion on molecular food applications. Many food science chefs are introduced from all over the world and they all have the same intention; to change the world of ‘normal’ food for the pleasure of people.
- César Vega, Job Ubbink in magazine “Trends in Food Science & Technology”, Volume 19, Issue 7, July 2008, Pages 372-382 wrote an article on “Molecular gastronomy: a food fad or science supporting innovative cuisine?”. The article talked about science-based cooking, where the first relates to the scientific understanding of the cooking and eating processes and the latter refers to the application of the principles and tools from science for the development of new dishes, particularly in the context of haute cuisine. They also discussed about chefs dealing with the available systematic knowledge on food and cooking, and how molecular gastronomy can facilitate the cumbersome, but much needed discussions among food scientists and chefs. Finally, we discuss the implications of molecular gastronomy for society.
- Erik van der, David Julian McClements and Job Ubbink in “food biophysics magazine” June 2008, Volume 3, Issue 2, pp. 246-254, publish paper on ‘Molecular Gastronomy: A Food Fad or an Interface for Science-based Cooking?’ The paper consist of brief history of the field of molecular gastronomy, the definition of the term itself, and the current controversy surrounding this term. They has also highlight the distinction between molecular gastronomy and science-based cooking, molecular gastronomy forms an ideal base to educate the general public about the basic principles of science and cooking.
- Herve’ This in British Journal of Nutrition (2005), 93, Suppl. 1, S139-S146, discussed about 2 issues “Modelling dishes and exploring culinary precisions”. Mr. This had explored the scientific strategy of molecular gastronomy includes modelling ‘culinary definitions’ and experimental explorations of ‘culinary precisions’. A formalism that describes complex dispersed systems leads to a physical classification of classical sauces, as well as to the invention of an infinite number of new dishes. He also explained some points related to molecular gastronomy such as disperse systems, food formalism for physical transformations, meaning of cooking and precision and scientific strategy.
- John Cousins, Kevin O’Gorman, Marc Stierand in International Journal of Contemporary Hospitality Management, publish paper on phenomenon of molecular gastronomy, ISSN: 0959-6119, Vol. 22 Issue: 3, pp.399-415, doi: 10.1108/09596111011035972. The paper aims to explore the phenomenon of molecular gastronomy by conducting empirical research focusing on renowned chefs. Paper focuses on the origins and evolution of molecular gastronomy, followed by 18 phenomenological interviews with a snowball sample of world class chefs from across Europe.
- Maria Domene in hipatia press publish paper on “EL BULLI - Contemporary Intersections between Food, Science, Art and Late Capitalism”, ISSN 2014-8892, vol-1, no.-1, page no. 100-126. The paper talk about incorporation of science and technology into cuisine by el bulli restaurant. The paper describe some of chef Adria’s dishes and examine the way in which relate to the artistic field. Further Ms. Maria talked about the culinary journey of Chef Ferran Adria’s, and his work related to spherification process, cooking with liquid nitrogen, menus created in the kitchen etc.
- Huiyong Wang & Jianming Wang in journal of culinary science and technology volume 14-2016, issue 3 Pages 191-197 wrote a research paper on topic “an analysis on the Influence of the Molecular Gastronomy on the Chinese Cooking Development”. The paper summarize the concept and characteristics of molecular gastronomy and analyze its links with the traditional Chinese cooking and the development of China’s market prospect. At the same time, it also has analyze on the impact of molecular gastronomy on Chinese cooking from cooking education, standard of Chinese food, and the scientific concept of Chinese cooking.
- Jaime Friel Blanck in journal of agriculture and food information, volume-8 2008 issue -3, wrote a

paper “Overview of a Controversial Food Science Discipline “Pages 77-85. The paper has included discussion on origins of the food science discipline, molecular gastronomy. Paper talk about gastronomists explore the physical changes that occur as food is prepared for human consumption and attempt to identify optimum methods of creating a dish for pleasurable flavor and texture. Paper also explain about the word “molecular gastronomy” is often misused in the media to refer to chefs who apply techniques developed by scientists to their own style of cooking.

- Tom Thomas and Sumit Pant in online journal “Advances in Economics and Business Management”, ISSN: 2394-1553; Volume 2, Number 6; April-June, 2015 pp. 556-559. In the paper the writers try to find the scope of this modern cuisine in world city like Delhi NCR, and also put forwards issues and challenges which can be a deterrent in acceptance of this type of cooking. The paper says about food changes in history of civilization, changes in the use of ingredients, techniques and flavors generated. The paper also includes all the development & revaluation happened over the period in culinary world.

OBJECTIVES OF THE STUDY

- To identify the awareness about Molecular Gastronomy in Indian consumers.
- To analysis the sustainability and practicability of the concept of molecular gastronomy in Indian cuisine.

LIMITATIONS OF THE STUDY

- The study is conducted in the current scenario and the opinions, perception and expectations of the respondents may differ with time.
- The study does not differentiate respondents on basis of their demographic factors which may have an influence of their perception thereby identifying scope for further research.

RESEARCH METHODOLOGY

The data required for the research was collected using the following techniques:

- Personal Interviews: The researcher conducted personal interviews with owners, managers and guests

of popular restaurants in Pune city to get an insight on the problem under study.

- Questionnaire: A questionnaire bearing straight forward and relevant questions was drafted and handed over to the sample to obtain their responses.

Discussions

Awareness of the Concept Among Indian Customers

Molecular Gastronomy is an advanced culinary science which uses certain amount of gases in cooking and preparing food. It is also about cooking food at different temperatures and viscosities. Molecular gastronomy comes in Indian cuisine is coming into its own, with pioneering Indian chefs like Vineet Bhatia, Gaggan Anand, Tejas Sovani, Vivek Singh and Atul Kochhar etc. leading the way. After the much hype over molecular gastronomy, which Europe had done with quite some time back, Indian restaurateurs seem to be going back to the classics. Making any molecular dish as it gets a hold of your attention as it’s something different and that’s why it has gained popularity in India.

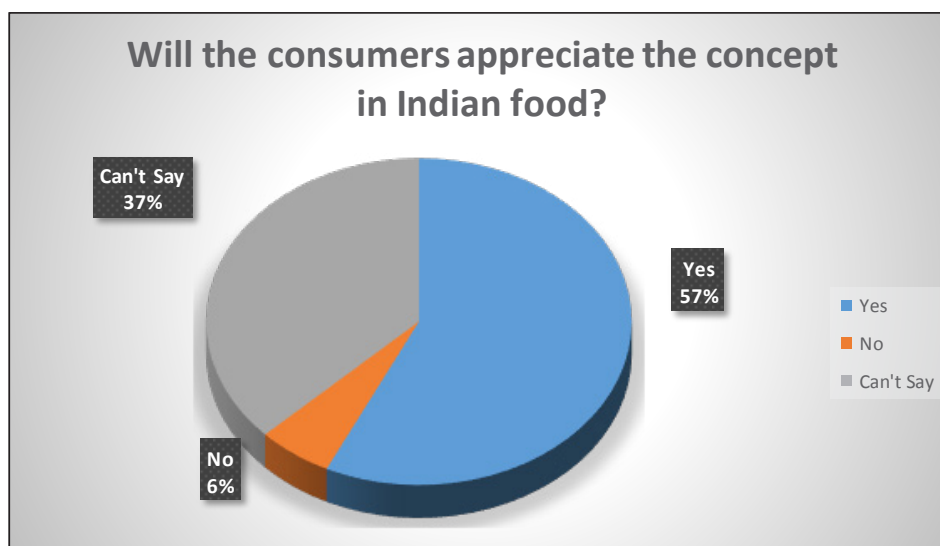
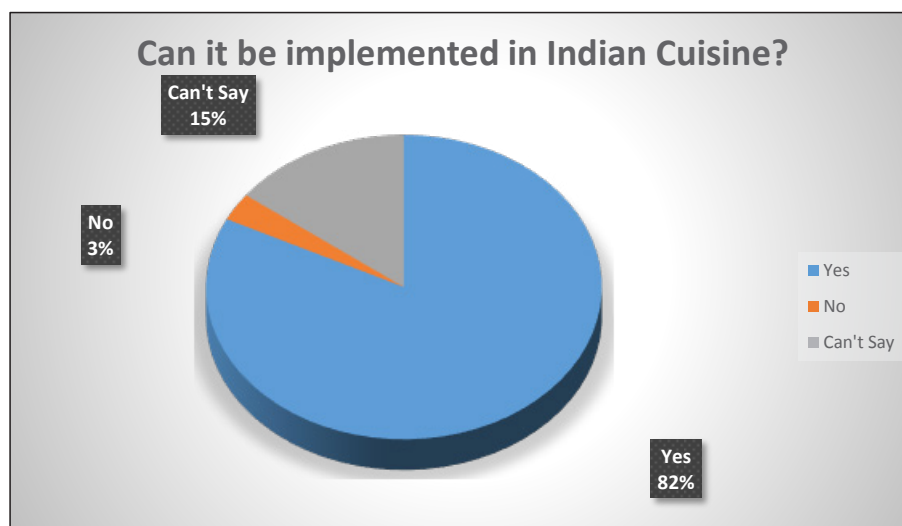
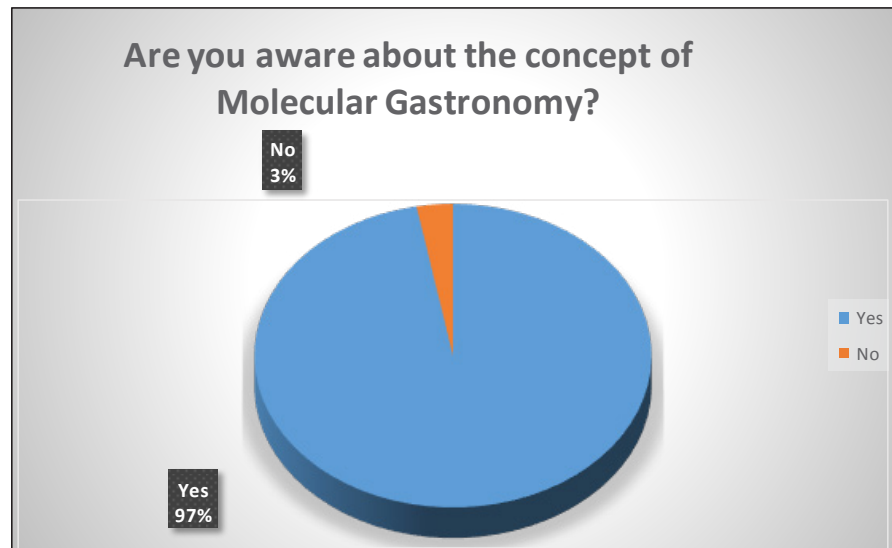
Application of the Concept in Indian Cuisine

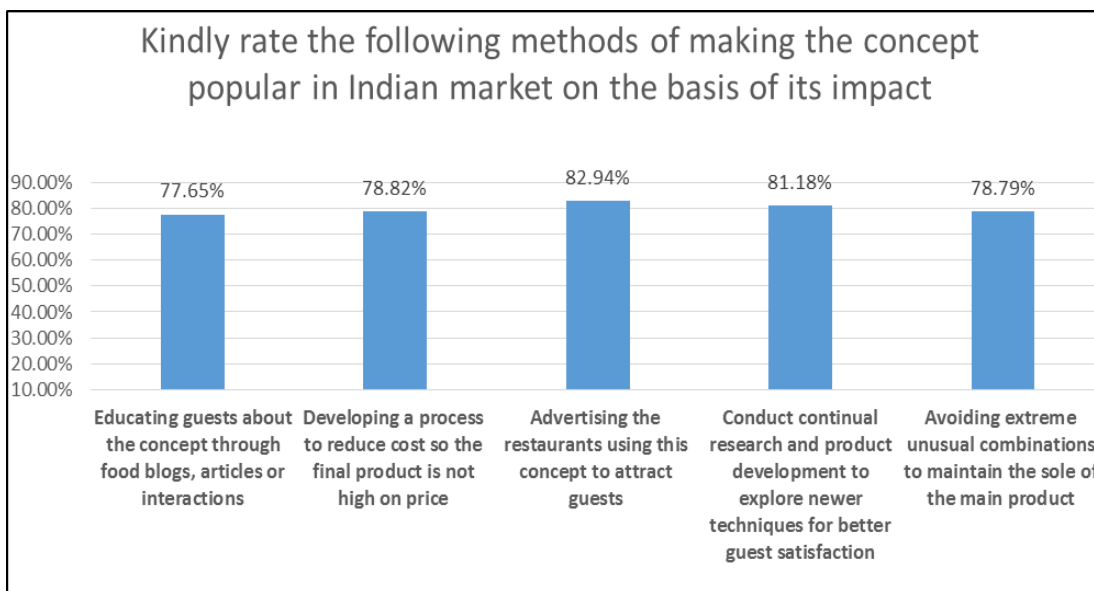
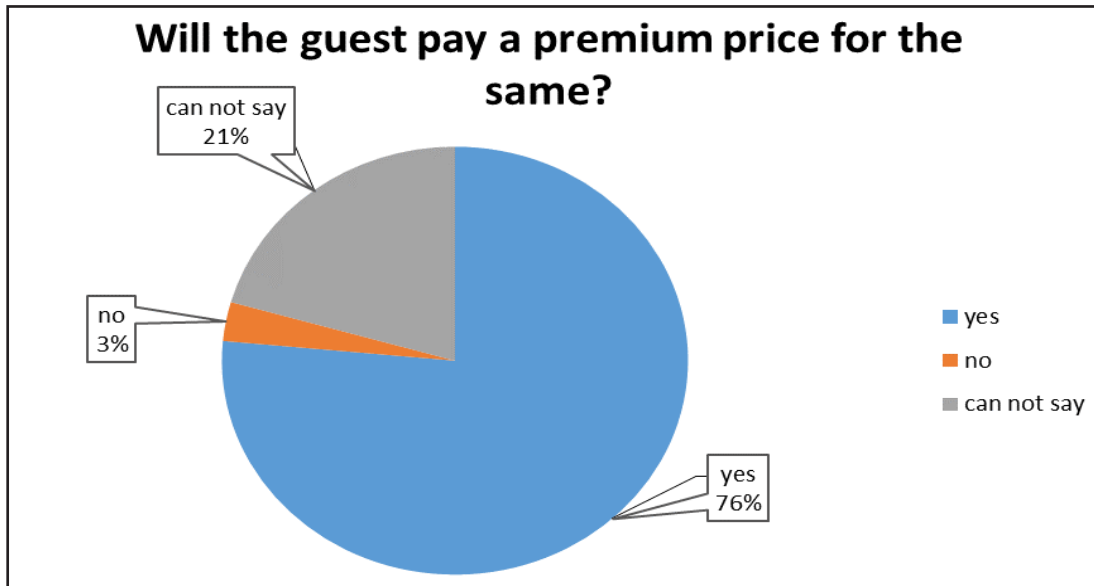
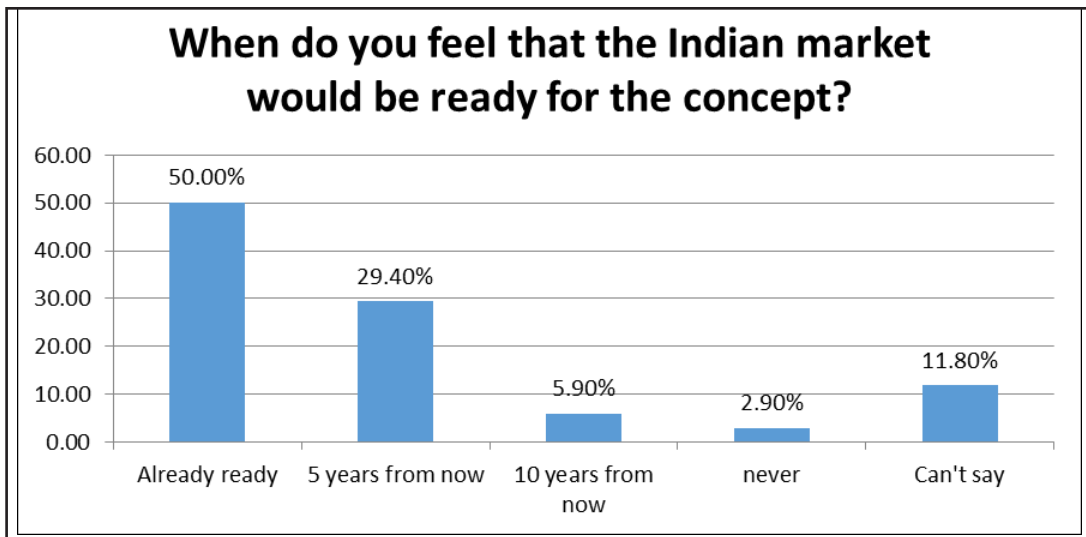
A lot of restaurants in India have been doing the Molecular Gastronomy technique. Some chefs says it might damages the Indian food flavors as they are very delicate and yet complex. Mixing it with hydrochlorides will slightly hamper the overall taste of the delicacy. However, molecular gastronomy as a chemical is absolutely safe. It’s been tried and tasted too. But right training, talent and usage is very important otherwise it will adverse on health. Be it liquid nitrogen, agar agar or xanthan gum all are safe for human consumption but if taken in excessive amount it will have a bad effect on you.

Sustainability and Practicability of the Concept

Molecular gastronomy in India is well known in metropole city. The concept need to advertise by the restaurants to attract. Chefs should be doing continual research and product development to explore newer techniques for better guest satisfaction. They must avoiding extreme unusual combinations to maintain the sole of the main product. The suppliers of raw material will play a vital role in implementation of concept practically.

FINDINGS





CONCLUSIONS

The findings of the research can be concluded as under:

1. Molecular gastronomy concept is very well aware in Indian market.
2. Indian market already ready for concept, as there are popular Indian restaurant in cities.
3. It can not only sustained but also practically implemented in Indian food. The most effective way to sustained will be advertisement by Indian restaurants.
4. Customers are ready to pay premium price for such new dishes.
5. Research and development of molecular gastronomy in Indian cuisine should be continuously carried out.

SUGGESTIONS & RECOMMENDATIONS

Based on the responses received by the customers on molecular gastronomy in Indian cuisine the following suggestions & recommendations can be made:

1. Molecular gastronomy concept is very much known in India. It can be implemented in Indian market.
2. The Indian chef who are working and doing research on molecular food should form an association or group across the India, which will help to overcome the challenges faced by other professional. The celebrity chefs also must get involved in promoting the cuisine with molecular gastronomy.
3. Suppliers should tie up with international trade associations to make sure raw material is easily available in all cities for molecular gastronomy.
4. Molecular food with Indian cuisine must be produce with safe to eat, as there are few past incidents happened in India of food poisoning because of consuming molecular food in Mumbai. Training of

chefs must be done for molecular food to sustain in India.

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