

Benefits of functional foods: Consumer perceptions

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Abstract:

There is an awareness and demand for functional foods in the Indian market. The manufacturers are introducing new products and heavily advertising for the same. However, the consumers are not completely convinced to replace regular food with functional food as the benefits are intangible and not measurable.

Index Terms: Functional foods; consumers; health benefits

I. Introduction

The term functional food originated in Japan, which has refined the definition of function foods given to only those foods which have been tested to prove their effectiveness and safety in clinical studies. The products are required to obtain a designation “FOSHU”, to be able to name the product “Functional Food”.

However in India, so far there is no well-defined category for functional foods. It is generally accepted that functional food is food that has been fortified with nutrients. It is any food that contains health giving additives like minerals, vitamins and fiber.

Not all functional foods have added additives. There are foods that have naturally occurring health boosting ingredients like orange juice which has potassium. They can be further boosted by adding nutrients that are not naturally found in them. Example – orange juice can be further fortified by adding calcium to it. Some of the most common functional foods are breakfast cereals, juices, breads, biscuits etc.

While all foods to a certain extent are functional, in that they have some nutritive value, functional foods may be modified and can claim to be beneficial in improving health and wellbeing of individuals who consume these foods. The food may be modified for a specific dietary requirement and may be prescribed by medical practitioners.

Objectives of the research

1. To study the level of awareness about functional food products available in the market.
2. To find out the perception of the consumers with regards to the functional food products.
3. To identify the reasons for the popularity of functional foods amongst consumers.

II. *Literature Review*

1. Clare M. Hasler, in “The Journal of Nutrition”, Volume 132, Issue 12, 1 December 2002, Pages 3772–3781, ISSN 0022-3166, EISSN 1541-6100, published research paper on “ functional food - Benefits, Concerns and Challenges—A Position Paper from the American Council on Science and Health.” The researcher has stated that for the functional food or ingredients health claims should have a strong base of scientific research. The evidence must be practically tried and tested on humans. However, not all foods on the market today that are claimed to be functional foods are supported by enough solid data to merit such claims. This review categorizes a variety of functional foods according to the type of evidence supporting their functionality, the strength of that evidence and the recommended intakes. Functional foods represent one of the most intensively investigated and widely promoted areas in the food and nutrition sciences today.

2. Wim Verbeke, in the journal of “food quality and preference”, Volume 17, Issues 1–2, January–March 2006, Pages 126-131, ISSN 0950-3293, wrote a paper on the topic “ Functional food- consumer willingness to compromise on taste for health.” The paper includes the data that was collected from sectional consumers in Belgium from two socio-demographically comparable samples in 2001 and 2004 using a similar research method with personal interviews. Results shows that females and elderly were more ready to compromise on taste for health, whereas others are not. All evolutions combined are indicative for decreasing unconditional acceptance of functional foods, especially on taste, and a lower conviction that functional foods can constitute a part of a healthy and tasteful diet among a large majority of consumers.
3. D Charalam popoulos, RWang, S.SPandiella, and CWebb wrote a paper in “International journal of food microbiology” Volume 79, Issues 1–2, 15 November 2002, Pages 131-141, ISSN: 0168-1605, on the “Application of cereals and cereals components in functional food”. The paper highlights about multiple benefits of cereals and cereals contained food. The paper also talk about cereals exploitation in different ways leading to the design of novel cereal foods or cereal ingredients that can target specific populations. The writers concluded that functional foods based on cereals is a challenging perspective, however, the development of new technologies of cereal processing that enhance their health potential and the acceptability of the food product are of primary importance.
4. IstvánSiró, EmeseKápolna, BeátaKápolna and Andrea Lugasi in journal “appetite” publish their paper named “Functional food. Product development, marketing and consumer acceptance—A review” in Volume 51, Issue 3, November 2008, Pages 456-467.ISSN0195-6663 in his paper talks about developments of functional food with practical and new approach to achieve optimal health status by promoting the state of well-being and possibly reducing the risk of disease. The paper speaks about current functional food market situation in USA, Japan and some European countries completed with some comments on functional food future potential and acceptance of functional food.
5. Klaus Menrad, in “journal of food engineering” Volume 56, Issues 2–3, February 2003, Pages 181-188, ISSN- 0260-8774, published paper on “marketing and marketing of functional food and market in Europe”. The paper has analysed facts and figures of functional food market, their challenges in European countries. Specific efforts in nutritional research, product development and marketing are necessary to realise long-lasting market success of Functional Food products. Therefore the market is characterised by a high rate of product failures.
6. Nina Urala, Liisa Lähteenmäki, in journal “nutrition and food science” has published paper on "Reasons behind consumers’ functional food choices", Vol. 33 Issue: 4, pp.148-158. ISSN: 0034-6659. The study was conducted to examine what reasons consumers give for either choosing or not choosing functional foods. They also try to find out how consumers described their reasons for choosing functional food alternatives in different product categories and how these descriptions are linked with values. Example - Yoghurt, spread, juice, carbonated soft drinks, sweets and ice cream. The results indicate that respondents did not see functional foods as one homogenous group over different product categories. Instead, consumers seemed to perceive functional products as a member of the general product category such as yoghurt or spread and only secondarily as a functional food.
7. Graeme H.McIntosh, Peter J.Roylea, Richard K.Le, Leua Geoffrey, O.Regesterb ,Melissa A.Johnsonc, Ross L.Grinstedc Rachel, S.Kenwardc Geoffrey, W.Smithersc, had published paper in “International dairy journal”, Volume 8, Issues 5–6, May 1998, Pages 425-434,ISSN 0958-6946 ,on the subject of “Whey protein as a functional food”. The paper explain about anti-cancer activity of whey proteins has been investigated in an animal model to evaluate their potential role in disease prevention, and to contribute to a basis for their inclusion as ingredients in functional foods. The foods containing whey protein were generally highly acceptable in taste trials of functional food. The studies aimed at substantiating the human health benefits of this protein source.
8. Ritesh K.Baboota Mahendra Bishnoi, Padma Ambalam, Kanthi Kiran Kondepudi , Siddhartha M.Sarma , Ravneet K.Boparai , Koteswaraiiah Podil had published paper on “Functional food ingredients for the management of obesity and associated co-morbidities- a review”. The journal was “the journal of functional foods”, Volume 5, Issue 3, July 2013, Pages 997-1012, ISSN 1756-4646.The writer analyses the issue of obesity all over the world. The paper talks about how Anti-obesity medications pose side effects, Functional food ingredients positively contribute towards alleviating metabolic disorders.

Considering the importance of dietary interventions, the present review highlights the role, significance and potential of functional food ingredients for the management of obesity and associated co-morbidities.

9. Sabine Bornkessel, Stefanie Bröring, Omta, Hansvan Trijp, wrote paper on topic of “What determines ingredient awareness of consumers? A study on ten functional food ingredients” in the journal of “Food quality and preference.” Volume 32, Part C, March 2014, Pages 330-339, ISSN 0950-3293. The paper was focus on German population, it includes awareness of ten different functional food ingredients throughout the German population. The aim of this study is to explore consumers’ ingredient awareness and the determinants which influence the awareness about functional food ingredients. A sample of 200 German consumers was interviewed by researchers. The study shows that consumers’ ingredient awareness varies throughout the sample. Overall it can be stated, that 19% of consumer awareness about functional food ingredients.
10. LiDay, Robert B.Seymour, Keith F.Pitts, IzabelaKoneczak, LeifLundin in the journal “ trends in food science and technology”, Volume 20, Issue 9, September 2009, Pages 388-395, ISSN 0924-2244 has published paper on “Incorporation of functional ingredients into foods”. According to the paper the market for functional ingredients and foods has experienced growth in recent years due to the increased consumer awareness and promotion of healthy eating and lifestyle. The paper further talks about dermatan sulphate and black carrot concentrate were used as model bioactive substances to demonstrate the approaches that can be taken for the development of functional ingredients and foods.

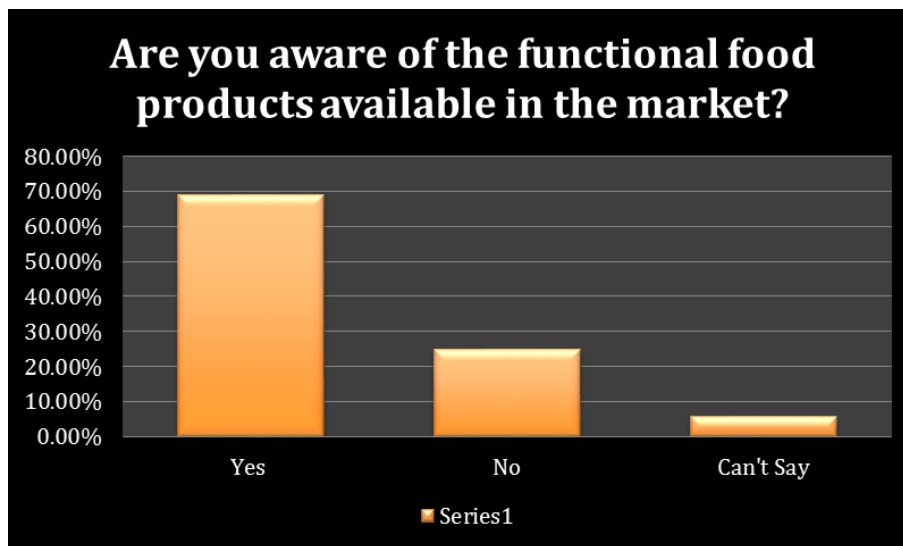
III. Research Methodology

The data required for the research was collected through questionnaires. Random samples were collected amongst various age groups, economic class, and various geographical areas.

Data Analysis and Discussions

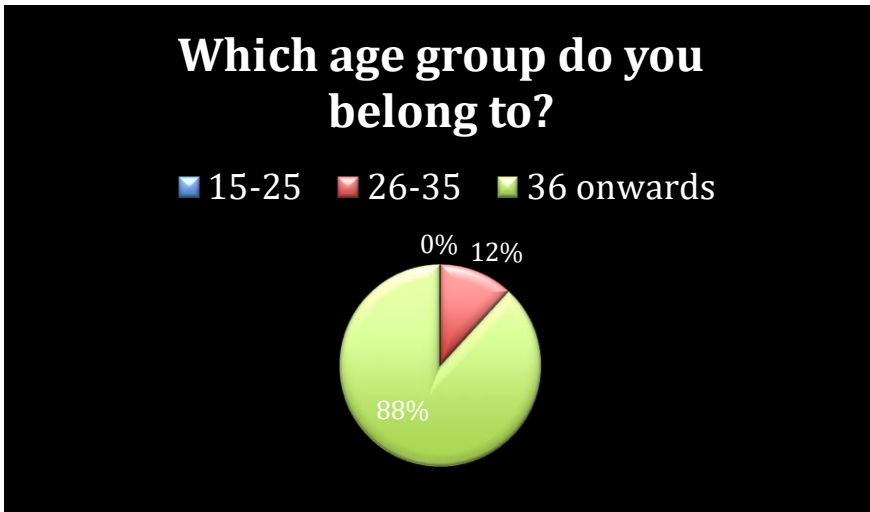
1. Are you aware of the functional food products available in the market?

Response	Percentage
Yes	69.10%
no	25%
Can't	5.90%



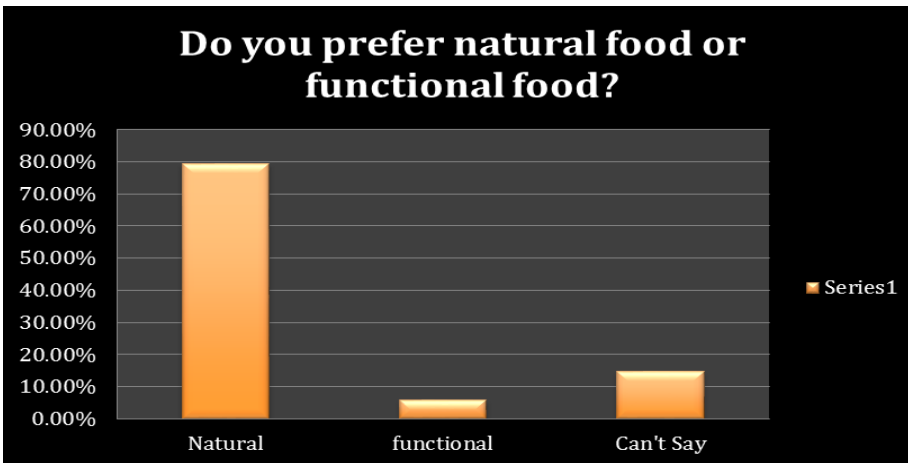
2. Which age group do you belong to?

Age	Percentage
15-25	0%
26-35	12%
36 onwards	88%



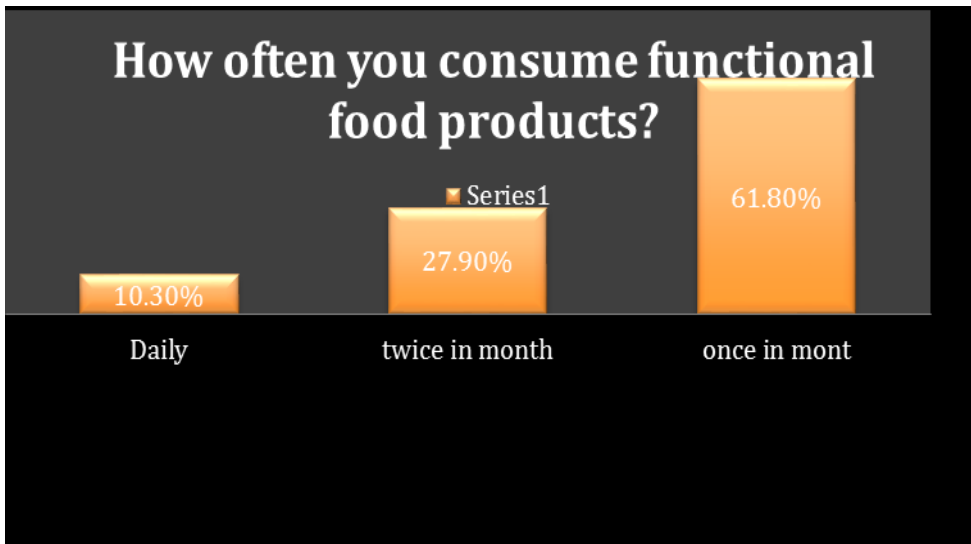
3. Do you prefer natural food or functional food?

Preference	Percentage
natural food	79.40%
functional food	5.90%
Can't Say	14.70%



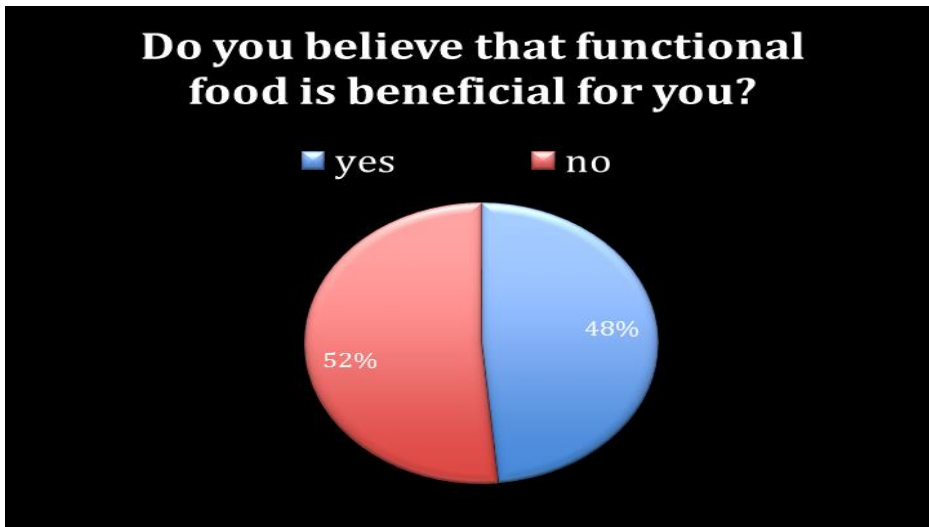
4. How often you consume functional food products?

Daily	10.30%
twice in month	27.90%
once in month	61.80%



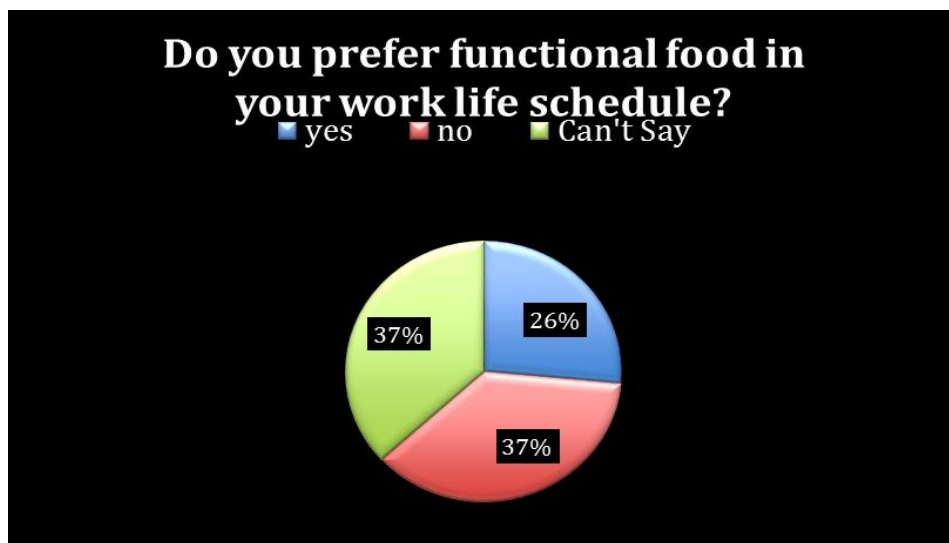
5. Do you believe that functional food is beneficial for you?

yes	48.50%
no	51.50%



6. Do you prefer functional food in your work life schedule?

yes	26.50%
no	36.80%
Can't Say	36.80%



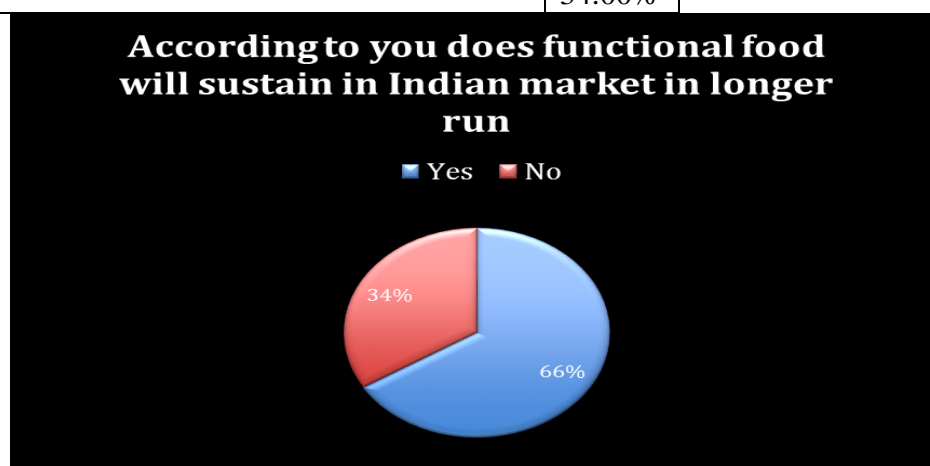
7. Are you ready to pay extra for functional food?

Yes	33.80%
No	66.20%



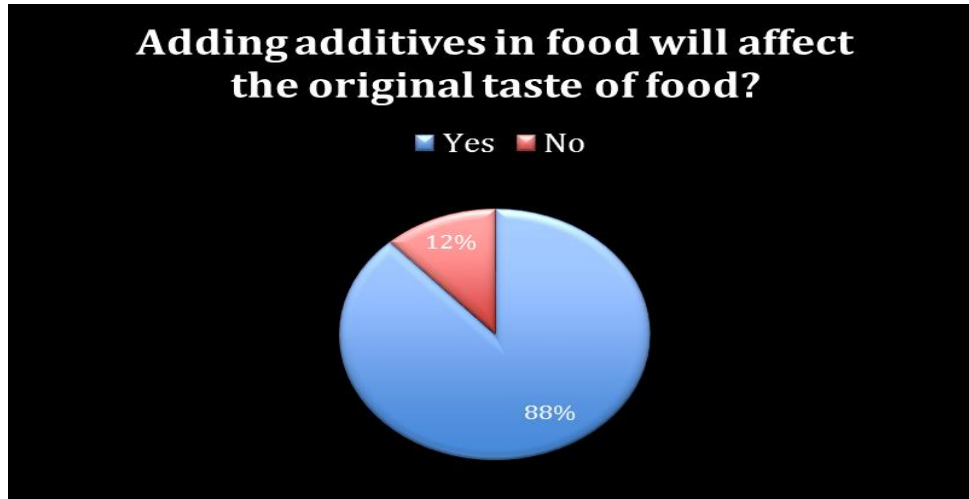
8. According to you does functional food will sustain in Indian market in longer run?

Yes	66.00%
No	34.00%



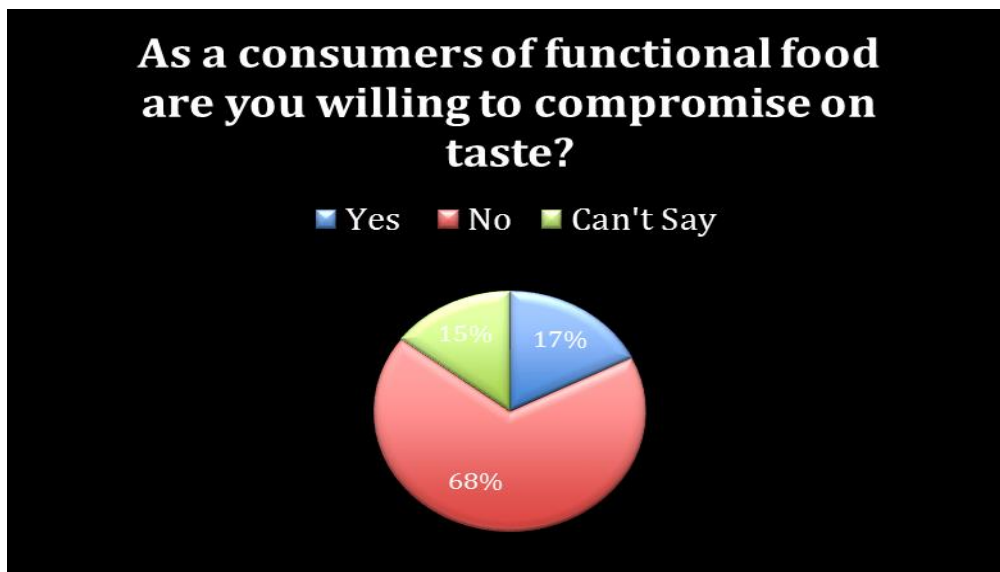
9. Adding additives in food will affect the original taste of food?

Yes	88.20%
No	12.00%



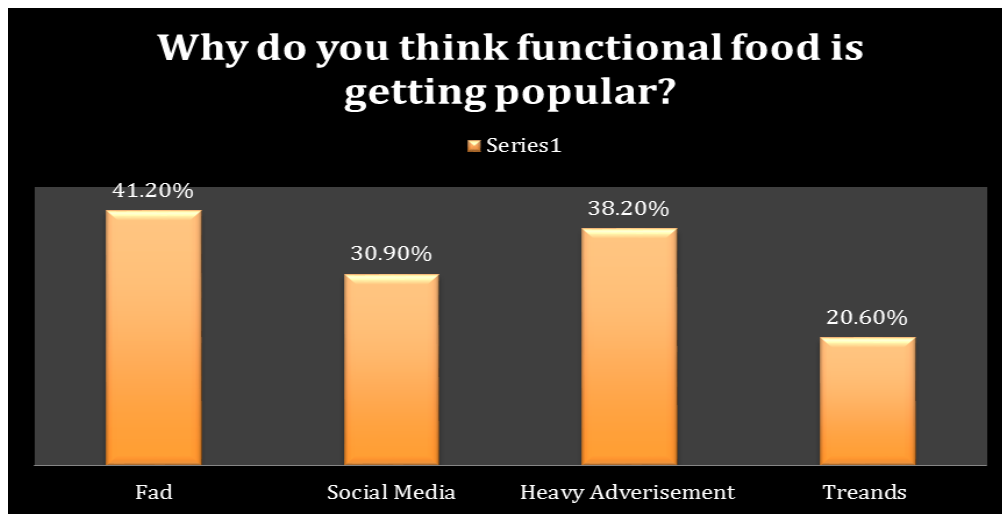
10. As a consumers of functional food are you willing to compromise on taste?

Yes	17.00%
No	68.00%
Can't Say	15.00%



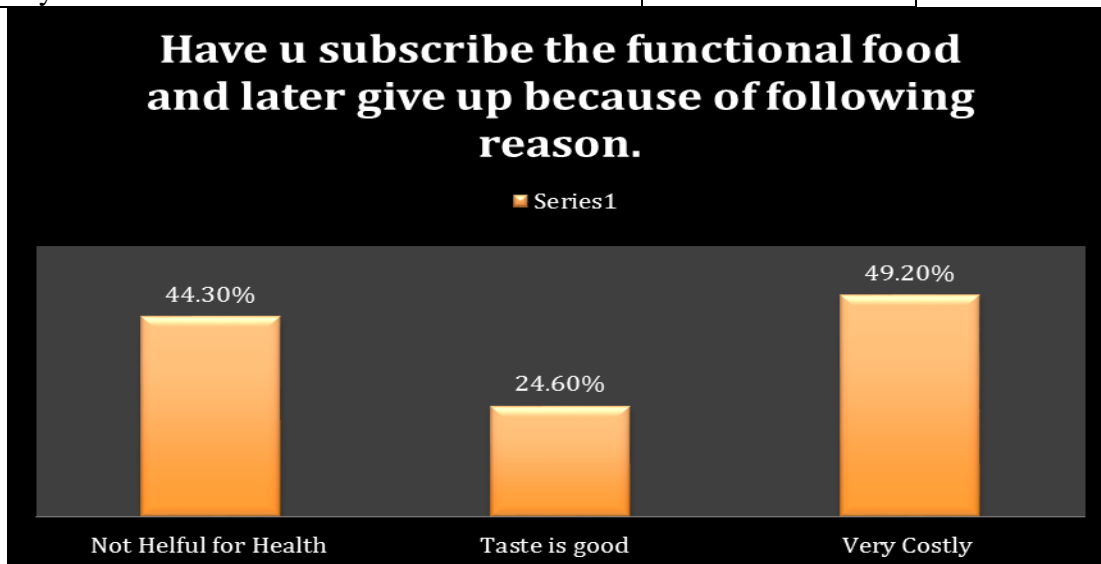
11. Why do you think functional food is getting popular?

Fad	41.20%
Social Media	30.90%
Heavy Advertisement	38.20%
Trends	20.60%



12. Have u subscribe the functional food and later give up because of following reason.

Not Helpful for Health	44.30%
Taste is good	24.60%
Very Costly	49.20%



Observations:

1. Almost 70% of the respondents were aware of functional food products that are available in the market.
2. 80% of the respondents preferred natural food to functional food.
3. Most of the respondents preferred to restrict the consumption of functional food to just once a month.
4. The respondents were divided about their opinion on benefits of functional foods with almost 48% stating that they did not believe that functional food is beneficial to them.
5. 26% of the respondents preferred functional food in their work life schedule while 37% did not prefer including functional food in their work life schedule. 37% of the respondents were not able to state their opinion.
6. 66% of the respondents were not ready to pay extra for functional food products.
7. Most of the respondents (66%) believe that functional foods are here to stay in the Indian Market.
8. 88% of the respondents believe that adding additives to the food affects the original taste of the food.
9. 68% of the respondents stated that they were not willing to compromise on the taste of functional food products. 15% of the respondents were willing to compromise on the taste whereas 17% of the respondents didn't have an opinion on the matter.
10. 41% of the respondents believed functional food is getting popular because it is fashionable (fad) to consume functional food. 31% of the respondents attributed popularity of functional food to social media; 38% attributed its popularity to advertising and 20% to current trends.
11. Of the respondents who subscribed to functional food and gave it up later, 44% said they did not find any health benefits; 24% gave up the subscription because they did not like the taste of functional food and 50% gave up their subscription because they found it too costly.

IV. Conclusion

The general awareness of functional foods is high. However there is no clear majority with regards to the perceptions about functional food. There is a general consensus that functional food must be beneficial since it is claimed to be; however there is a general lack of conviction about this claim. The consumers also do not seem to follow a functional food diet consistently. Their food habit are more random and intermittent. This has resulted in the consumers not experiencing any benefits. Also taste is also a major factor in their decision of consuming functional food. If there is a change in the taste, then the consumer is reluctant to subscribe to the product. Their subscription to functional foods is sporadic and influenced by social media, current trends and advertisements. But the general opinion is that functional foods are here to stay and their market share will increase in due course. The research indicates that the manufacturers are unable to convince and get the trust of the consumers that functional foods are beneficial for good health.

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