

## “Study of Health Foods among Different Stakeholders”

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**ABSTRACT:** India where opportunities exist due to vast consumers' base and abundantly available raw material should also assess the opportunities at the national level for the growth of functional food sector. The present study was conducted in northern India. Four cities, namely Delhi, Chandigarh, Lucknow and Dehradun were selected randomly, for this study. Four types of stakeholders, namely consumers, producers, sellers and doctors were selected as the respondents for this study. The study revealed that majority of the sellers (60.00%) and producers (70.00%) were vegetarian in food habit. But, most of consumers (57.50%) and doctors (65.00%) were non-vegetarian. Majority of each stakeholder were having medium level of information regarding health foods. Majority of the consumers (56.67%) were having medium level of information regarding nutritional status of the health foods. Majority of the respondents (60.00%) always read and/or utilised nutritional information given on the product as source.

### INTRODUCTION

Functional food is a segment in food processing. Recently many functional foods have been introduced in Indian market. However, despite projected demand producers are risk in nature. There is always fear of product failure in market place. There is always need for product related data related to consumer preference have institute-based study for making further insight apropos stakeholders' preference and perception towards health foods.

Countries like India where opportunities exist due to vast consumers' base and abundantly available raw material should also assess the opportunities at the national level for the growth of functional food sector. As functional foods cover a broad group of products and production systems that some may find demand in the domestic market, while others can be targeted for export. Identification of specific export markets, certification and other regulations, and consumer-demand are product and/or ingredient specific, and largely dictate the possibilities for development. Further studies could establish the most critical bottlenecks in production systems and identify

opportunities with the greatest potential for rural employment creation and competitive advantage for small-scale farmers as the producers of functional foods.

Thus, keeping this in mind, the present study entitled “**Study of health foods and present status its Stakeholder**” was undertaken with the following specific objectives To ascertain preference of various stakeholders' towards Health foods.

### RESEARCH METHODOLOGY

The present study was conducted in northern India. Four cities, namely Delhi, Chandigarh, Lucknow and Dehradun were selected randomly, for this study. Four types of stakeholders, namely consumers, producers, sellers and doctors were selected as the respondents for this study. From each city, 30 consumers were selected by using systematic sampling, whereas, 5 producers, 5 sellers and 5 doctors were selected by using simple random sampling. Thus, a total of 120 consumers, 20 producers, 20 sellers and 20 doctors were selected as respondents for this study. Finally, the sample size

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for the study happened to be 180. The data were collected by personal interview method, through pre-tested interview-schedule and the collected data were scored, tabulated and subjected to various kinds of analyses using appropriate statistical tools in order to draw meaningful conclusions.

The collected data were classified and tabulated in the light of objectives of the study. Based on the nature of the study the tabulated data were analysed statistically with the help of following statistical methods;

**Percentage**

The percentage value was calculated to make simple comparisons. Percentage value was calculated by dividing the frequency in the particular cell by number of respondents and multiplying it by 100.

$$\text{Percentage (P)} = \frac{n}{N} \times 100$$

Where,

n = Frequency of particular cell

N = Total number of the respondents in a particular cell

**Mean**

The arithmetic average of the set of the data had to be often computed during the analysis of data. This measurement was used to see the central tendency of the data. The mean score of a series of data was equal to the sum of the individual measures divided by the total number of respondents. The mean scores for each group were worked out by computing with this formula:

$$X = \frac{\sum X_1}{N}$$

Where,

X = Mean

$\sum X_1$  = Sum of each of the individual measurement of the scores

N = Number of respondents

**RESULTS AND DISCUSSIONS**

**Dietary Habits**

The study revealed that majority of the sellers (60.00%) and producers (70.00%) were vegetarian in food habit. But, most of consumers (57.50%) and doctors (65.00%) were non-vegetarian. But, in overall 53.33 per cent respondents were non vegetarians. In

the present study area, all kind of multicultural and multi linguistic respondents were present which in turn affects their dietary habits. As compare to all India vegetarian population is also relatively high. This might be because of north Indian tradition and milk based consumption and dietary habits (Fig. 4.6).

These findings were consonance with Singh (2008) who reported that majority of Indian were non-vegetarians. But, these findings had contradicted with the findings of Bandyopadhyay (1999). He reported that majority of respondents were vegetarian. Women, among adults, were adopting vegetarian diets citing health, environment, and animal rights as reasons for doing so (Janelle and Barr, 1995). Approximately twelve million Americans followed some form of vegetarian diet. The vegetarian diet can be nutritionally adequate when well planned, but vegetarian diets were typically low in vitamin B12, calcium and iron and high in fiber. The high intake of fiber might interfere with the absorption of calcium (Janelle and Barr, 1995; Miller *et al.*, 1995). However, dietary habits were notoriously difficult to change and even more difficult to sustain, even if the positive health effects are known.

**Table 1**  
**Distribution of stakeholders on the basis of Dietary Habits**

Category/ Respondents	Consumers (n <sub>1</sub> =120)	Sellers (n <sub>2</sub> =20)	Producers (n <sub>3</sub> =20)	Doctors (n <sub>4</sub> =20)	Pooled (n=180)
Veg	51 (42.50)	12 (60.00)	14 (70.00)	7 (35.00)	84 (46.67)
Non-veg	69 (57.50)	8 (40.00)	6 (30.00)	13 (65.00)	96 (53.33)

Figures in parenthesis indicate percentage

**HEALTH FOODS STATUS OF RESPONDENTS**

**Stakeholders' information/awareness about Health foods**

It was necessary to study level of awareness regarding health foods among the stakeholders. It is revealed from Table 2 that majority (54.44%) of the respondents were moderately aware of health foods information followed by low (23.88%) and high (21.67%) level of awareness. It was found from the same Table that 62.50 per cent of the consumers had medium level of information followed by low (23.33%) and high (14.17%) level of information regarding health foods. Majority of each stakeholder were having medium level of information regarding health foods. These findings were contradictory with findings of Anukam *et al.* (2006) in which respondents were had low level

of information and awareness Health and Wellness Food and Beverages (2010) reported that consumer awareness of fortified/functional products was low. Menrad and Sparke (2006) the results of the consumer survey indicated that sufficient knowledge was an important key factor to lead consumers towards Functional Food and may be to healthy diet in general.

The scores of doctors were the highest while the scores of consumers were the lowest in this study. These differences might be due to different in education and up-to-date nutritional findings in these fields. Majority of respondents’ represents medium category (54.44%) reason behind it might be more mass media exposure and relatively good education of respondents in this study area. Also parents were more concerned with health of children and older people. In this aspect they had good communication with friends and relatives.

**Table 2**  
Distribution of stakeholders on the basis of information about health foods

Category/ Respondents	Consumers (n <sub>1</sub> =120)	Sellers (n <sub>2</sub> =20)	Producers (n <sub>3</sub> =20)	Doctors (n <sub>4</sub> =20)	Pooled (n=180)
Low (<16.67)	28 (23.33)	6 (30.00)	7 (35.00)	2 (10.00)	43 (23.89)
Medium (16.67-23.58)	75 (62.50)	8 (40.00)	7 (35.00)	8 (40.00)	98 (54.44)
High (>23.58)	17 (14.17)	6 (30.00)	6 (30.00)	10 (50.00)	39 (21.67)

Figures in parenthesis indicate percentage

### Stakeholders’ source of nutritional information

From the Table 3, it is revealed that 48.89 per cent of all the stakeholders were having medium level of information regarding nutritional status of health foods. Majority of the consumers (56.67%) were having medium level of information regarding nutritional status of the health foods. In case of producers and doctors, majority (55.00%) of them were having high level of nutritional information. But, 40.00 per cent of the sellers were having low level of nutritional information. This is line with Yoon (2007) reported that people could gain information on HFFs through media (32.9%), word-of-mouth (31.6%), hospital and pharmacy (13.3%) and HFF stores (9.7%). Therefore, it was important to provide proper channels through which consumers can receive information on HFFs more easily and quickly

### Purchasing pattern of Health Foods

The data pertaining to purchasing pattern of health foods among the stakeholders was presented in Table

**Table 3**  
Distribution of stakeholders on the basis of nutritional information about health foods

Category/ Respondents	Consumers (n <sub>1</sub> =120)	Sellers (n <sub>2</sub> =20)	Producers (n <sub>3</sub> =20)	Doctors (n <sub>4</sub> =20)	Pooled (n=180)
Low (<2.25)	30 (25.00)	8 (40.00)	1 (5.00)	4 (20.00)	49 (27.22)
Medium (2.25-4.03)	68 (56.67)	7 (35.00)	8 (40.00)	5 (25.00)	88 (48.89)
High (> 4.03)	22 (18.33)	5 (25.00)	11 (55.00)	11 (55.00)	43 (23.89)

Figures in parenthesis indicate percentage

4 and it was found that 68.33 per cent of the stakeholders had medium level of purchasing of health foods followed by high (17.78%) and low (13.89%) level of purchasing. Majority of each stakeholder had medium level purchasing pattern of health foods.

**Table 4**  
Distribution of stakeholders on the basis of purchasing pattern of Health foods of stakeholders

Category/ Respondents	Consumers (n <sub>1</sub> =120)	Sellers (n <sub>2</sub> =20)	Producers (n <sub>3</sub> =20)	Doctors (n <sub>4</sub> =20)	Pooled (n=180)
Low (<10.37)	12 (10.00)	7 (35.00)	6 (30.00)	0 (0.00)	25 (13.89)
Medium (10.37-17.13)	96 (80.00)	8 (40.00)	7 (35.00)	12 (60.00)	123 (68.33)
High (>17.13)	12 (10.00)	5 (25.00)	7 (35.00)	8 (40.00)	32 (17.78)

Figures in parenthesis indicate percentage

### Stakeholders’ consumption of health foods

Table 5 revealed the complete picture of consumption pattern of health foods among respondents. It was found from the same Table that 65.56 per cent of all the stakeholders of North Indian cities were having medium level of consumption of health foods. The same table also represent that 73.38 per cent of consumers had medium level of consumption. In case of sellers, it was found that 55.00 per cent had medium level of consumption followed by high (25.00%) and low (20.00%) level of consumption. About 45.00 per cent of the producers and 50.00 per cent doctors had medium level of consumption. Food consumption pattern varies place to place, culture to culture and this may the reason of wide variation in result as the study was confined in four different states. During the study it was found that the main motive of the stakeholders behind the consumption of health foods was to have effective solutions for different health problems like obesity, high cholesterol level and heart

diseases which were the part and parcel of modern stressful life.

Further, the respondents under sellers and producers categories revealed that in rapidly expanding economy like India where consumption patterns are changing over time, there was a huge potential for the growth of health foods' market. The underlying reason behind this were that as the education and income level of people increases, the consciousness about different health foods and their demand also increases.

**Table 5**  
**Distribution of stakeholders on the basis consumption pattern of health foods**

Category/ Respondents	Consumers ( $n_1=120$ )	Sellers ( $n_2=20$ )	Producers ( $n_3=20$ )	Doctors ( $n_4=20$ )	Pooled ( $n=180$ )
Low ( $<13.30$ )	16 (13.33)	4 (20.00)	5 (25.00)	2 (10.00)	27 (15.00)
Medium (13.30-20.30)	88 (73.34)	11 (55.00)	9 (45.00)	10 (50.00)	118 (65.56)
High ( $>20.30$ )	16 (13.33)	5 (25.00)	6 (30.00)	8 (40.00)	35 (19.44)

Figures in parenthesis indicate percentage

## CONCLUSIONS

On the basis of the results of the present study, some significant implications have been suggested. findings of the present study may have wide implications for the researchers, in particular and the Indian health food industry, in general. The entrepreneurs, who are constantly trying to develop new health food products, should develop such technologies which may suit to various perceptions, needs, preferences and conveniences of the consumers Majority (68.23%) of the stakeholders had medium level of purchasing pattern. But, 80.00 per cent of consumers, 40.00 per

cents of sellers, 35.00 per cent of producers and 60.00 per cent of doctors were in the medium category of purchasing. Majority of the respondents (60.00%) always read and/or utilised nutritional information given on the product as source. In findings of Park and Park (1998) the major source of acquiring the information about health food was mass media such as TV, internet and newspapers.

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