

## **Nutrition Information in Fast Food Chains: Perspective to Consumer Awareness and Purchase Decision**

**Dr. Pawan Kumar Patodiya\* & Surbhi Mathur\*\***

*\*Research Supervisor, RTU Kota, Associate Professor, Biyani Institute of Science & Management, Jaipur, \*\*Full Time, Research Scholar, RTU Kota*

**Abstract:**

*Understanding of nutrition information and its execution in real practice in terms of adoption in menu offers is at nascent stage. The research strives to be centric around understanding the spread of nutrition awareness and influence of same on consumers' fast food purchase decision. The area of the study is specific to Rajasthan which has immense potential in terms of growth of fast food chains. The results of research facilitate better understanding of how consumers' purchase behaviour within the context of fast food restaurants are influenced by: awareness of nutrition information, demographics, accessibility and promotion of nutritious food. The study was undertaken through self-administered questionnaire to survey and investigate the consumers' awareness about nutrition information available in fast food chains. The sample size is 405 consumers based at selected cities of Rajasthan.*

**Keywords:** *Nutrition, Point of Purchase, Healthy Meals, Purchase Behaviour.*

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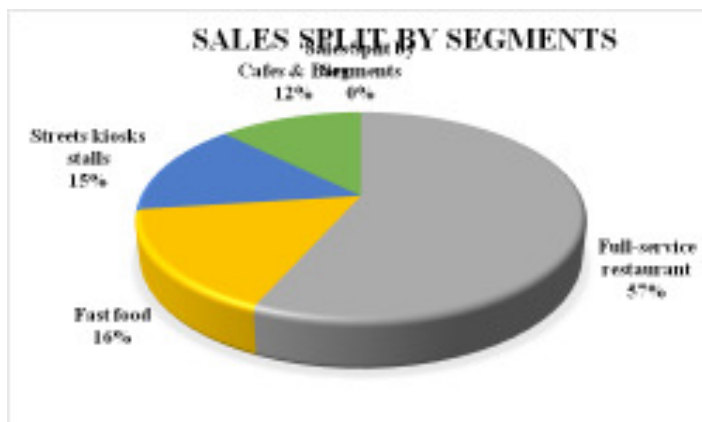
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### Introduction:

The Food Safety and Standards Authority of India (FSSAI) is the apex governing body which regulates and monitor the food value chain across the globe. However, in contrast to developed economies India lacked in terms of quality and food safety standards (according to KPMG Report 2016). Thus there is an immediate need to execute collaborative work by authorities (government - both at national and states, industry & stakeholders) for ensuring implementation of food safety standards through stringent compliance.

India is among the fastest growing economies in the world. The country's Gross Domestic Product (GDP) is estimated to grow at 7.4 % over the Fiscal Year (FY 17 & FY 18) as forecasted by the International Monetary Fund (IMF). However, the contribution of the Indian restaurant industry accounts to approximately 2.1% in the total GDP by 2021, according to the National Restaurant Association of India (NRAI). The growth of industry is dominated by factors: increased food consumption, trend of eating out, exposure to varied brands, experimenting innovative cuisines etc. which helps to reach market at INR 3091.1 billion in 2016. The market is projected to grow at a rate of 10% during 2016-21, to reach a value of INR 4981.3 billion as per the NRAI estimates. Fast Food Restaurants and Full-service restaurants together accounts for a majority of 73% of India's food service industry. Broadly, the food services industry can be classified in following four segments with sales estimation as shown in figure 1.1:



**Figure 1.1** Sales split, by segments

Source: Euromonitor research, accessed January 2016

With the upsurge in fast food chains both domestic and multinational players are facing the heat of competition. Introducing different and creative food menu is a

simple tactic to sustain and outperform the competition. The leading multinational chains continuously innovate their offerings by focusing on local taste in order to maximize the veggie lover's customer base. Additionally, increasing awareness about healthy meals drive consumers towards healthy eating options. The health conscious segment is growing at a rate of 10-15% annually and has reached market size of INR 125 billion in 2016. In consideration to this, fast food players are incorporating number of health food options to lure the changing preferences. To name few health foods: breakfast cereals, salads, organic soups, multigrain breads, green tea etc. are gaining popularity in majority of restaurants.

The rationale of study focused on spread of nutrition awareness and its influence on fast food purchase decisions. Through different depictions few ideas and insights can be suggested to fast food retailers with consideration of healthy meals promotion as well regulatory concerns.

#### **Literature Review**

The study conducted in UAE depicted positive attitude about posting of calorie information in menus. However, young participants were more prone to eat at menu labeled restaurants. Additionally, the trend of menu labeling encourage restaurants to introduce healthier options. The research analyzed that UAE residents must have calorie and nutrient awareness to better comprehend and execute the nutrition facts mentioned at food packaging while their consumption practices Radwan et al. 2017. Charles & Christopher 2016 concluded that price assumed an inevitably essential part in consumers' decision making for fast-food products specifically when the nutritional information became more operational. The study facilitates important suggestions for fast-food companies in South Africa as well as for regulatory bodies who oversee the social responsibility of fast food industry. The study confirmed the effectiveness of health signals in terms of simplified displays, colour coded information and influence consumer choice of fast food products.

The research of Mazariegos et al., 2016 surveyed six different fast food restaurant chains in Guatemala City which offered children's combo meals with toy giveaways. It was analyzed that nutrition information was accessible in only two restaurants. However, for majority of combo meals targeted at children's were not clear about nutritional information. Additionally, fast food chains focused on toy giveaways, price incentives to promote less healthy combo meals. The findings depicted requirement of comprehensive approach to encourage healthier choices on the part of Guatemalan public health authorities. Ahn et al. 2015 researched the essence of providing nutrition information on parents' food choices. Access to nutrition information facilitated empowerment in parents' decision making process.

The study of Chand et al. 2011 conducted cross-sectional survey which indicate that healthier meals at fast food chains are found to be less expensive and low in energy, fat, sugar and sodium in contrast to regular items. Indeed, the nutrition information was available but not at the point of purchase. This was unlikely helped in fast food purchasing decisions. Additionally, the consumers visited restaurants rarely looked at company websites or wall posters and pamphlets available in stores to access nutritional information. The impact of nutrition labeling on fast food purchase of children and parents was researched by Tandon, et al. 2011. Findings supported with adoption of nutrition labeling as national health reform mandate. In tune with this, disclosure of nutrition information at point-of-purchase mandated as an effective way to promote healthier food choices at restaurants.

The study of Burton, et al 2009 analysed that consumers had inadequate knowledge of nutrition and calorie intake in meals purchased from restaurant chains. Due to this lack of knowledge it was unable for consumers to make informed food choices. Burton, et al. 2006 used survey and experiment techniques to understand the influence of nutrition information on purchase intentions and food preferences. The results concluded that disclosure of nutrition information had impact on consumers' product choice and purchase intentions.

Nutrition knowledge is a pivotal but not only a deciding factor for change in food behaviour (Worsley 2002). So far, factors (motivation and information processing) were also desirable to promote nutrition awareness and choice of healthy meals. The research of Brown et al., 2000 stated the positive awareness of nutrition awareness among 11-16 years' young consumers. However, food preferences within school, social and home environment does not reflect such knowledge. It was apparent from the findings that there lies significant gap between nutrition knowledge and adoption of same in food choice behaviour.

**Objectives:**

- Ø To investigate the spread of nutrition awareness with respect to demographics.
- Ø To identify the impact of nutrition awareness on fast food purchase decision.
- Ø To identify the factors that influence promotion of nutrition information.

**Hypotheses:**

1. H0: Demographics does not impact choice of fast food restaurants on the basis of quality of food.  
H1: Demographics impact choice of fast food restaurants on the basis of quality of food.
2. H0: There is no relationship between nutrition awareness & selection of fast food items on the basis of nutrition information availability.

H1: There is relationship between nutrition awareness & selection of fast food items on the basis of nutrition information availability.

3. H0: Nutrition value information does not influence fast food purchase decision.

H1: Nutrition value information influence fast food purchase decision.

### **Research Methodology**

Based on the above hypotheses research model was developed to verify the relationship between nutrition awareness and impact on fast food purchase decision. In order to verify our research model, a survey was conducted. The target population for this study consisted of consumers in Rajasthan. Primary data was collected with aid of structured questionnaire consist of samples 405 consumers through simple random sampling from the multinational fast food chains in Rajasthan (McDonald's, Pizza Hut and Dominos). The questionnaire consists of 18 dichotomous, multiple response questions and 5 point likert scale (1. Strongly agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree) response questions including demographic data. For analysis of data different statistical tools has been used. Some of the methods were frequency count, ANOVA & chi square test through SPSS & Excel software. For the purpose of reliability of data, reliability test was conducted. Result depicted Cronbach Alpha value as 0.728. As the Cronbach Alpha values above .70 is acceptable, thus it can be inferred that the scale is reliable.

### **Results & Discussion**

The demographic count spread as follows: respondents in age group of 18-24 years were found as 57%, 25-34 years as 24%, 35-44 years as 12% and above 45 years as 7%. The respondents consisted of 48% males and 52% females. 28% of respondents were married and rest 72% were unmarried. As education is concerned it was found that 13% were in school category, 38% as undergraduates, 47% as postgraduates and only 2% lies in other category. In the bracket of occupation, 45% of respondents were analysed as student, 30% as salaried, 13% as self-employed, 9% as housewife and 3% in other category. The income spreads among respondents in the way: 42% had monthly income below Rs.10000, 13% had a monthly income between Rs.10001-20000, 31% had income in the range of Rs. 20001-30,000 and 14 % had income above Rs. 30001.

The rationale of research is centric on understanding of nutrition awareness and its influence on fast food purchase decision. In tune with this, results shown that 43% of respondents have nutrition information of fast food available in multination food chains, on flip side 57% does not have nutrition information. Additionally, the

spread of nutrition awareness with respect to demographics is as: majority of 55% in age group of 18-24 years, females with 52%, 70% as marital status ‘unmarried’, majority of 48% as education ‘postgraduate’, 46% as respondents in student category and alike with this 42% in income bracket of Rs. 0-10,000 as maximum aware of nutrition information.

### I Hypothesis

**Table 1.1 Hypothesis testing through chi square**

| Demographics   | Choice of fast food restaurant  | P Value | Remarks     |
|----------------|---------------------------------|---------|-------------|
| Age            | Availability of quality of food | 0.741   | Ho Accepted |
| Gender         | Availability of quality of food | 0.140   | Ho Accepted |
| Marital Status | Availability of quality of food | 0.035   | H1 Accepted |
| Education      | Availability of quality of food | 0.000   | H1 Accepted |
| Occupation     | Availability of quality of food | 0.132   | Ho Accepted |
| Income         | Availability of quality of food | 0.193   | Ho Accepted |

**Table 1.1** identifies the relationship between demographics and choice of fast food restaurant on the basis of quality of food. The result depicts that demographic variables i.e. Marital Status & Education impact selection of fast food restaurant due to availability of quality of food. In both the cases, calculated value is .035 & .000 respectively which is less than level of significance (which is 0.05) and has given clear indication of rejection of null hypothesis. However, demographics specific to age, gender, occupation and income does not impact choice of restaurant due to availability of quality of food.

### II Hypothesis

**Table 1.2 Hypothesis testing through chi square**

| Variable            | Selection of fast food items          | P Value | Remarks     |
|---------------------|---------------------------------------|---------|-------------|
| Nutrition Awareness | On the basis of nutrition information | 0.000   | H1 Accepted |

The above table clearly reflects the significant relationship between nutritional awareness and selection criteria of fast food on the basis of nutrition information.

### III Hypothesis

**Table 1.3 Hypothesis testing through chi square**

| Variable                                  | Purchase Decision Variables             | P Value | Remarks     |
|---|---|---------|-------------|
| Nutrition Information in Fast Food Chains | Menu card or display board              | 0.000   | H1 Accepted |
| Nutrition Information in Fast Food Chains | Promotional Activities                  | 0.000   | H1 Accepted |
| Nutrition Information in Fast Food Chains | Inclusion of fruits, vegetables & salad | 0.000   | H1 Accepted |
| Nutrition Information in Fast Food Chains | Healthy lifestyle                       | 0.000   | H1 Accepted |

The results of chi-square analysis in table 1.3 depicts that nutrition information in fast food chains impact food purchase decision with respect tonutrition information in menu or display board, promotion through TV commercials, print media, mobile SMS, website ads etc., availability of more fruits, green vegetables, salad in menu etc. as well vital to lead healthy lifestyle.

**Table 1.4 ANOVA analysis for hypothesis I**

|   |                | ANOVA          |     |             |       |      |
|---|----------------|----------------|-----|-------------|-------|------|
|   |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| Selection of fast food restaurant is due to availability of quality food (differ as per age group)      | Between Groups | 3.447          | 4   | .862        | .956  | .432 |
|   | Within Groups  | 360.588        | 400 | .901        |       |      |
|   | Total          |                |     |             |       |      |
| Selection of fast food restaurant is due to availability  | Between Groups | 1.731          | 4   | .4331       | .740  |      |
|   | Within Groups  | 99.518         | 400 | .249        |       | .140 |
|   | Total          | 101.249        | 404 |             |       |      |
| Selection of fast food restaurant is due to availability of quality food (differ as per marital status) | Between Groups | 2.080          | 4   | .520        | 2.620 | .035 |
|   | Within Groups  | 79.392         | 400 | .198        |       |      |
|   | Total          | 81.472         | 404 |             |       |      |
| Selection of fast food restaurant is due to availability of quality food (differ as per education)      | Between Groups | 17.012         | 3   | 5.671       | 7.661 | .000 |
|   | Within Groups  | 296.830        | 401 | .740        |       |      |
|   | Total          | 313.842        | 404 |             |       |      |
| Selection of fast food restaurant is due to availability of quality food (differ as per occupation)     | Between Groups | 5.006          | 4   | 1.252       | 1.064 | .374 |
|   | Within Groups  | 470.688        | 400 | 1.177       |       |      |
|   | Total          | 475.694        | 404 |             |       |      |
| Selection of fast food restaurant is due to availability of quality food (differ as per income)         | Between Groups | 9.624          | 4   | 2.406       | 1.898 | .110 |
|   | Within Groups  | 506.959        | 400 | 1.267       |       |      |
|   | Total          | 516.583        | 404 |             |       |      |

In the above table 1.4, it is indicated that consumers while making selection of fast food restaurant on the basis of quality of food are not bounded by age, gender, occupation and income. Demographics specific to marital status and education where the calculated value is less than level of significance and narrated the acceptance of alternative hypothesis.

**Table 1.5 ANOVA analysis for hypothesis II**

|   |                | ANOVA<br>Sum of<br>Squares | df  | Mean<br>Square | F     | Sig. |
|---|----------------|----------------------------|-----|----------------|-------|------|
| While selecting food items in multinational chains, deciding criteria is availability of nutrition information. | Between Groups | 5.489                      | 4   | 1.372          | 5.873 | .000 |
|   | Within Groups  | 93.464                     | 400 | .234           |       |      |
|   | Total          | 98.953                     | 404 |                |       |      |

The results of above table concluded that consumers with nutrition information applied the same while selection of fast food items as well.

**Table 1.6 ANOVA analysis for hypothesis III**

|   |                | ANOVA<br>Sum of<br>Square | df  | Mean<br>Square | F       | Sig. |
|---|----------------|---------------------------|-----|----------------|---------|------|
| Nutritional information of each fast food menu card or display board.   | Between Groups | 89.168                    | 4   | 22.292         | 911.313 | .000 |
|   | Within Groups  | 9.785                     | 400 | .024           |         |      |
|   | Total          | 98.953                    | 404 |                |         |      |
| Multinational food chains should display the nutrition information in their promotional activities like TV Commercials, Print Media, Mobile SMS, Website Ads etc. | Between Groups | 83.872                    | 4   | 20.968         | 556.141 | .000 |
|   | Within Groups  | 15.081                    | 400 | .038           |         |      |
|   | Total          | 98.953                    | 404 |                |         |      |
| Availability of more fruits, green vegetables, salad in menu etc. will improve nutrient content of fast food.   | Between Groups | 75.506                    | 4   | 18.876         | 322.022 | .000 |
|   | Within Groups  | 23.447                    | 400 | .059           |         |      |
|   | Total          | 98.953                    | 404 |                |         |      |
| Nutritional information is important to lead healthy lifestyle.   | Between Groups | 84.344                    | 4   | 21.086         | 577.357 | .000 |
|   | Within Groups  | 14.609                    | 400 | .037           |         |      |
|   | Total          | 98.953                    | 404 |                |         |      |

As analysed in table 1.6, nutrition information in fast food chains impact food purchase decision.

### Conclusion

Awareness of nutrition information is depicting positive trend from the analysis which can be further taken as way to promote healthy eating. Good number of consumers' considered 'nutrition information' as a deciding factor while selection of food items. In tune with this, 'quality of food' is also an important determinant precede the choice of fast food restaurant as far as marital status and education are concerned.



The results of research supported the significant impact of nutrition information on fast food purchase decision. However, the promotion of nutrition information must be carefully designed by fast food retailers. On a higher note, respondents agreed with view to mention nutrition information in menu or through huge display, there must be promotion through integrated media sources, fast food chains must ensure accessibility to fruits, green vegetables and salad etc. in menu, additionally all such practices aid consumers' in making informed choices and pave way to lead healthy lifestyle.

#### Future Way

According to the National Institute of Nutrition, the recommended fat intake per day is 20g for both men and women, while the recommended daily allowance for sugar as per the latest norms of the World Health Organization is 25g (6 teaspoons). Although in spite of mandatory food regulations the execution is at nascent phase. This is somewhere can be bridged through nutrition education and awareness which can be supporting aid to make healthier choices. Evidenced by recent report of FSSAI as well which emphasized on adoption of regulations and directives strictly. The role of nutrition label on food products plays significant role in spreading positive awareness among populace to make healthy choices in sustained fashion. In tune with this, fast food retailers must comprehensively design their promotional mix to enhance the reach of nutritious diet and sustain the fashion of healthy food choices.

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