

Effect of Food Label Information on consumers Purchase Decision

By Dr. Archana Singh^[a] & Mrs. Nivi Srivastava^[b]

Abstract

Food labelling is a medium by which consumers can acquire knowledge about the food they consider buying. However, in order to be useful, the information must deal with those aspects which are of most concern to the consumers, and it should be formulated in such a way that they can understand and use it. The aim of paper is to analyse understanding of food labels among consumers and to explore the reasons behind usage / non-usage of food labels, a structured schedule based survey was used for the purpose of the study. A total of 100 respondents were considered for the study. Data were collected from various superstores located in Lucknow city of Uttar Pradesh, India. Consumers consulted labels mostly as assistance in purchase decisions for examples comparing prices, expiry dates etc. those consumers who are not consulting food labels the key reasons were technical complications, time consuming, unreliability and inconsistency. The main factor was the inability to understand the terminology used. Consumers read food labels to know about discounts, offerings and for brand comparisons. Price, ingredients and expiry dates are also read but very few read information regarding certification mark form quality certification agencies like FPO, Agmark etc., because they are unaware about them. a small sample size is the limitation of the study.

The study is valuable for Indian Government in framing policies regarding food labelling and for imparting health education. By the help of this research, manufacturer can give more emphasis on label; he can make it more customers friendly and attractive so it will also help it to draft consumer friendly labels for effective usage.

Keywords- Food Labelling, India, Consumer, Manufacturer, Purchase decisions

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1. Introduction

The phrase “You are what you eat” is literally true. Eating is considered as one of the most important parts of our everyday living. Without which we can’t expect the life to exist. The foods we eat are the single source of energy and nutrition. Food contains a variety of nutrients which are essential if our bodies have to function effectively. Nutrients are required to perform a particular role(s) in the body including growth and repair, heat and energy and protection from disease. It is important that the food we eat provides a combination of nutrients.

Changing needs and lifestyle, the link between diet and disease, dietary guidelines and media attention have stimulated interest in nutrition (Richardson, 1990). Trends in society have an influential effect on consumer choice and demand. Healthy living is a term frequently used, with the benefits of exercise, a healthy diet, reduction of alcohol and stress management continuously stressed by experts in the fields of nutrition and medicine. Life expectancy has increased and people want to lead an active and healthy lifestyle in the latter part of their lives.

Consumer buying behavior for food and grocery products has always been influenced by a number of economic, cultural, psychological and lifestyle factors (Shaw et al., 1993; Brokaw and Lakshman, 1995; Asp, 1999; Roux et al., 2000; Roininen, 2001; Choo et al., 2004; Ling et al., 2004; Ahlgren et al., 2004; Goyal and Singh, 2007; Nagla, 2007). In the recent decades, sustained economic growth and increasing urbanization are fuelling a rapid growth in the demand for high value food products like fruits, vegetables, milk, meat, eggs and fish (Bhalla and Hazell, 1998; Kumar, 1998; Bhalla et al., 1999; Landes et al., 2004; Pingali and Khwaja, 2004; Rao et al., 2006).

Food purchase behaviour of consumers in most emerging economies, including India, has significantly changed due to increase in per capita disposable income, movement of households towards higher income groups, increases in global interaction, increased access to information and communication technologies, urbanization, changes in lifestyle, changes in family structure and increase in education & health awareness (KPMG 2005).

The Indian consumers have been responding to changes in quality of food intake and are becoming more conscious about nutritional diet, health, and food safety issues (Deiningner and Sur2007).

In India, the Prevention of Food Adulteration Act (PFA) and Fruit Products Order (FPO) under the Essential Commodities Act are two regulatory arrangements which primarily deal with officially recognized ingredient limits and safety standards of food items. Food labelling standards and requirement are not very rigorous and are governed by both these regulatory provisions as well as by the Packaged Commodities Rules (PCR) under Weights and Measures Act. While the Indian Government is deliberating the law on food labelling, it is important to know the understanding and usage of these labels by Indian consumers and how they view the most prevalent format of food labelling, Under such scenario where government regulation on nutritional content of food labelling is not very stringent and/ or is vague, this study analyses usage and understanding of labels by consumers in order to inform the future policy debate (Kumar and Ali 2011).

2. Objectives of the study

- 1) To explore the reasons for usage and non usage of food labels among consumers.
- 2) To find out which attributes of food labels are marked important by consumers.
- 3) To assess the influences of food labelling on changes in dietary patterns among consumers.
- 4) To find whether the food label determines what food to buy or not.

3. Methodology

The study was conducted in selected supermarkets of Lucknow city of Uttar Pradesh India, in March 2015. The research instrument was a structured schedule Questionnaire, which asked consumers about their usage and understanding of food labels. A short pilot study among thirty consumers was done to check the accuracy of schedule. A random sample 100 consumer were taken from selected supermarkets from various areas of Lucknow City; primary data was taken from these customers by means of pre tested questionnaire. Questionnaire was designed so that to address the knowledge and attitude towards diet, usage of food labels by manufacturer, questionnaire was given to respondent randomly while entering the supermarket. For this study convenience sampling for the first phase is used as I had selected the supermarkets on the basis of my convenience, for the second phase, systematic random sampling is performed. Under this, every item of the universe has an equal chance of inclusion in the sample. 10 supermarkets of Lucknow was selected as per convenience, Then for second stage 10 consumers per supermarket were selected using systematic random sampling method in which each element in the population has a known and equal probability of selection using formula $k = N/n$ where k is the sampling interval, n is the sample size, and N is the population size.

The schedule Questionnaire were analysed using SPSS (Version 14). Descriptive statistics were used to assess the frequency of responses. Correlation analysis was carried out to establish associations between two attributes. Level of significance used was $p, 0.05$.

4. Findings

A total of 100 completed schedules Questionnaire were used for the final analysis. The key findings of the study were as follows.

4.1 Consumer's profile

According to gender, the study comprises 45 Male and 55 female respondents however, when a question was asked as who in the family is responsible for making decisions regarding purchase of food product, majority of them said its female members (63%), 31% said its male members and 6% said that it is a joint decision of family. Price and brand offerings in food labels are most important criteria for female respondents. A total of 21 per cent of the consumers were between 18- 24 years of age group and 27 per cent were between 25 -34 years of age group, 16 per cent respondents are from 35-44 age groups, 22 per cent are from 45-54 age group, 10 per cent from 55-64 age group and 4 per cent respondents are above 65 year age. Most of the respondents were well educated, 37 per cent respondents had passed university level, 43 per cent passed college, 13 per cent were 12th pass and 7 per cent were high school pass. The income level of 37 per cent of the respondents was above 25000(Indian rupees) of monthly income. A total of 26 per cent of the consumers had special dietary needs (Table I).

Table 1: Respondent's Profile

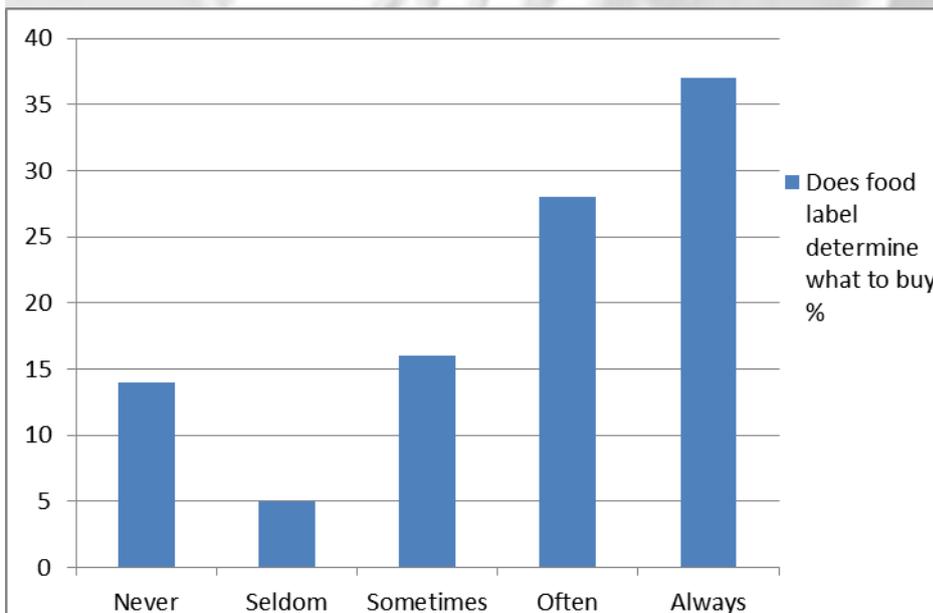
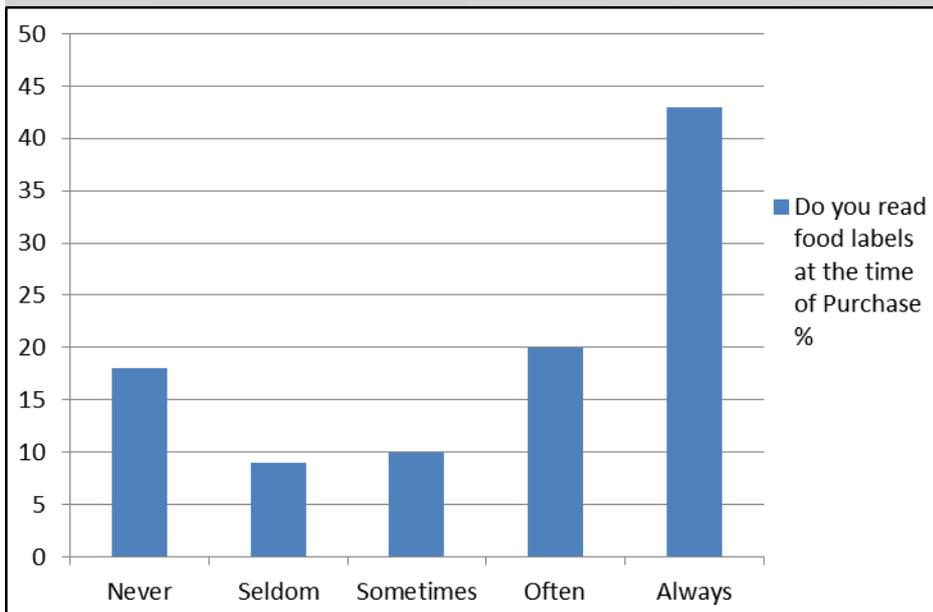
Characteristics	Percentage
<i>Gender</i>	
Male	45
Female	55
<i>Age</i>	
18 – 24	21
25 – 34	27
35 – 44	16
45 – 54	22
55 – 64	10
65 – Above	4
<i>Education Level</i>	
10 OR Less	7
12	13
Graduation	43
Post Graduation & Above	37
<i>Monthly Income Level (Family)</i>	
5000 OR Less	1
5001 – 10000	6
10001 – 15000	10
15001 – 20000	19
20001 – 25000	27
25001 & Above	37
<i>Family Type</i>	
Vegetarian	48
Non-Vegetarian	52
<i>Marital Status</i>	
Single	17
Married	77
Others	6
<i>Special Dietary Needs</i>	
Yes	26
No	74

4.2 Consumer's usage and non usage of food labels

The survey results of the study indicate that majority of consumers (82%) in the sample read food labels. Among them, 43% 'always' read the labels, followed by 20% reading them 'often', 10% reading them 'sometimes', 9 % 'seldom' and the remaining rarely go through labels while purchasing packaged food products. When asked about their opinion on whether the food label helps in deciding whether or not to buy a certain packaged food product, the most common response was 'always' (37%), followed by 'often' (28%), 'sometimes' (16%) and, finally, 'never and seldom' (19%). This clearly indicates that food label is becoming an important source of product information for consumers table.

Table 2: Respondent’s response towards reading & making purchase decision

Responses	Do you read food labels at the time of Purchase %	Does food label determine what to buy %
Never	18	14
Seldom	9	5
Sometimes	10	16
Often	20	28
Always	43	37
Total	100	100



Consumers consulted labels mostly as assistance in purchase decisions for examples comparing prices, expiry dates etc, 26% said that if they are facing with special dietary recommendations so they go through food labels, 16% want to know the nutritional content of food labels, among those 18 per cent who are not using food labels the key reasons were technical complications, time consuming, unreliability and inconsistency.. The main factor was the inability to understand the terminology used. A total of 39 per cent of the consumers were unable to use the information appropriately. The respondents conveyed that the terminology on the food labels appeared technical and very advanced to them. They thought that reading the labels took too much time or was too cumbersome, another explanation was that they did not have enough interest to go into the trouble of acquiring enough knowledge in order to be able to use the information on the labels successfully. This may be due to the lack of education. Font size also made the understanding difficult Consumers wants more information in bigger font size.

Marital status, Income level, and age did not play a role in the usage of food labels by the consumers.

Consumers' awareness about the labels was not up to the mark. A total of 57 per cent are not aware about FPO signs, Agmark certification marks, vegetarian /non vegetarian marks etc. they are not aware about regulations regarding food labelling and regulatory authority of food labelling in India, which is at present Food Safety and Standards Authority of India (FSSAI).

The disclosure of information on food labels in India are primarily governed by the Prevention of Food Adulteration Act, 1954, which has principally focused on the basic information of the product on the food labels and lay less importance on health and nutritional information to be given on the food labels. However, current amendments on packaging and labelling of food under part VII of the Prevention of Food Adulteration Rules, 1955 has mandated to disclose the health and nutritional claims on the food labels along with basic information. The new integrated Food Safety and Standards Act (FSSA), 2006 also aims at establishing a single reference point for all matters relating to food safety and standards across the country, by moving from multi-level, multi-departmental control to a single line of command. Chapter IV, paragraph 23 of the FSSA clearly states that no person shall manufacture, distribute, sell or expose for sale, or dispatch or deliver to any agent or broker for the purpose of sale any packaged food product which is not marked and labelled in the manner as may be specified by regulation. The Food Safety and Standards Authority of India have already been established to speed-up the implementation of various rules and regulations in the Act.

Consumers use different sources of information to know about food labels. Television commercials were the major source of information for the consumers. Friends, internet, books and magazines were also consulted. Only 9 per cent of the consumers specifically if they had special health conditions could calculate per serving availability of the ingredients using the given formats on food labels , i.e. nutritional content per100 g. as stated by Shannon (1993) regarding importance of benchmarks on the food labels.

Respondents who are having special dietary needs consulted labels to know about the content of fat or cholesterol in the product. Amount of sugar was generally examined by diabetic's patients. Generally the respondents focused their concentration on the substances

that they tried to avoid or reduce the intake of, very few mentioned substances which they were interested in having enough of, such as vitamins and proteins. Some respondents pointed out that they tried to get enough of these substances through including generous amounts of fresh foods, such as fruits, vegetables and fish in their diet. Thus, they thought that they did not have to read the food labels on industrially produced and packaged foods in order to make sure that they got enough of these nutrients. Information regarding understanding of the term recommended dietary allowances (RDA) was also sought, a total of 71 per cent of the consumers did not know about the term. A total of 7 per cent of the consumers who had special dietary needs like diabetes or high cholesterol problem describe it. Special dietary wants and understanding of term RDA was significantly correlated (correlation coefficient 0.752, p, 0.000).

Usage of food labels and understanding of term RDA was also significantly correlated (correlation coefficient 0.596, p, 0.000).there was a significant correlation between reading of food labels and changes in dietary patterns among consumers (correlation coefficient 0.601, p, 0.000).this information explained that after reading food labels consumers are now becoming more health conscious.

Consumer response on food labelling information

Respondents responses on 12 elements of food labelling have been recorded in a five-point Likert scale through structured schedule. Consumers were asked to express their views if labels should carry information on various attributes in terms of 'not important' to 'extremely important' in purchase of food product.

Analysis of mean scores indicates that information on product price (4.44), information about manufacturing date along with the best before and expiry dates (4.22), name and address of the product manufacturer (4.24) and warning/instruction on health risk with details of nutritional contents (3.96) have been reported to be 'extremely important' for purchase of packaged food product by majority of the respondents. Furthermore, information on use/preparation methods (3.56), quantitative information about artificial ingredients, such as colour, chemical (3.36), size of serving (3.28), have been reported by the respondents to be 'very important', nutrient information list (3.16), Veg/ Non-Veg Mark (3.00), list of ingredients or contents of food (2.96), 'less important' were quality certification from agencies (like Agmark, ISI, FPO) (2.4) and storage instruction (2.2). There was significant difference in male and female respondent's behaviour; male respondents are more concerned towards information on health risk, size of serving and indication of vegetarian or non-vegetarian, female respondents are more concerned towards price of product, best before and expiry dates, nutrient information list and information on use/preparation methods, as according to (Wiles, 2006) traditional role of female consumers are the gatekeeper of household food choices and purchases could motivate their interest in food labels. Furthermore, their responsibility towards the well-being of their family also creates an awareness of the nutritional content of food (Wang et al., 1995).

Table 3: Level of importance assigned by consumers for various attributes of food labels

Attributes of Food Label	Mean ^a	Mode	SD
List of ingredients or contents of food	2.96	3	1.154000508
Vegetarian / Non Vegetarian Mark	3	3	0.852802865
Nutrient information list	3.16	3	0.734709453
Price of Packaged food	4.44	5	0.57419245
Manufacturing date, best before ,expiry date	4.2	4	0.635641726
Name and address of product manufacturer	4.2	4	0.635641726
Warning/ instruction about health risk	3.96	3	0.963159783
Quantitative information about artificial ingredients, such as colour, chemical	3.36	4	0.979795897
Use / preparation method	3.56	4	0.57419245
Size of Serving	3.28	4	0.922009225
Storage instruction	2.2	2	0.804030252
Quality certification from agencies (like Agmark, ISI ,FPO)	2.4	3	0.635641726

^aNot important = 1, Extremely important = 5.

SD - standard deviation.

5. Conclusion

From the present study it is understood that the effective use of food labels entails consumer skills such as the ability to read, interpret and evaluate the information on the label. Subsequently, such skills would facilitate consumer's understanding of the information and, therefore, also assists them in making food choices. Consumers are becoming aware of the vital relation between diet, health and disease. They want detailed, precise and reliable information regarding the foods they consume. Food labels provide this information to them. As a result, reading and understanding of these food labels is an important part of the consumption process.

This study was carried out with the mean of assessing consumers regarding their understanding of food labels. Consumers read food labels to know about discounts, offerings and for brand comparisons. Price, ingredients and expiry dates are also read but very few read information regarding mark form quality certification from agencies, because they are unaware about them.

The consumers conveyed that the terminology on the food labels appeared technical and very advanced to them. They thought that reading the labels took too much time or was too cumbersome

The information on food labels that is used by consumers and difficulties they experience in understanding such information should be investigated so that recommendation could be made to food label regulator and manufacturer of food products regarding how the information on food labels should be presented. More importantly, these factors need to be investigated to address consumer's need in terms of food labels and to motivate them to use such information, thereby also facilitating healthier food choices.

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