

Consumer Awareness Regarding Food Labelling of Pre-Packaged Foods in Kochi, Kerala

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Abstract

A tremendous surge in the production, sale and consumption of packaged foods has been observed in the last few decades. Food labels are tools for nutrition communication and act as the most effective and direct means of communication between the seller and consumer. A cross-sectional consumer market survey was carried out across four major supermarkets of Ernakulam District to assess data on gender distribution in purchasing pre-packed products, determine the level of awareness with respect to the information provided on labels of packed foods, determine factors affecting the purchasing decision among consumers and assessing the knowledge regarding food laws and symbols. The results indicated that approximately half of the subjects belong to the male and female gender. The subjects reported that they evaluated the food label information with a primary focus on manufacturing date, price and brand. Nutritional Information on the label was not as significant. The factors deterrent the reading of food labels are lack of time and knowledge. The degree of information among study subjects was vastly in the minimally informed category. The results gave a clear indication that label information is sensitive to gender and education and insensitive to the age and occupation of the study subjects.

Keywords: Consumer Awareness, Food Labelling, Pre Packaged Food

1. Introduction

There has been a tremendous surge in the production, sale and consumption of packaged foods in the recent years. Food product labelling, as a policy tool for ensuring provision of nutrition and health information to consumers and as product differentiation strategy by food companies, is of significant importance¹. A 'consumer' refers to the buyer of goods and services. Consumer awareness is an act of ensuring that the buyer or consumer is aware of information pertaining to products, goods, services as well as consumer rights. Consumers are now becoming increasingly concerned regarding their health and general well-being with improvement in the standards of living². A food label

is a legal requirement that needs to be fulfilled by food processing companies for better health and safety of the consumer³. Food labels direct the consumer in pre-purchase and post-purchase decision making⁴. Lack of awareness about food labelling, illiteracy, less consciousness on health, media influence, non-availability of consumer guidelines on the use of food labelling while purchasing food have been reported by studies from various countries⁵⁻⁸. This paper aims to explore consumer awareness regarding food labels and information provided on food labels, to examine the extent to which food labels influence purchase pattern/ decision of packaged food products, to assess the impact of socio demographic characteristics of consumers on the level of awareness regarding food label and lastly, to assess

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the knowledge of consumers regarding food labels and symbols.

2. Materials and Methods

Kochi is a cosmopolitan city in Kerala, the financial capital and the largest urban agglomeration in the state. A preliminary survey was conducted to identify the most preferred supermarkets in Ernakulam District of Kerala. A purposive sampling technique was adopted for the conduct of the study. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. The sample size comprised 500 adults. All individuals over 18 years and below 69 years of age who purchased pre-packaged food items and agreed to participate in the study were included as subjects. The tool selected for conducting the survey is a questionnaire developed by the investigator to elicit information. It comprised four sections which included questions to collect information on socio demographic variables, purchasing pattern of pre-packed foods, awareness of food labelling information, food laws and symbols. The questionnaire comprised close ended questions. A pilot study was conducted to standardize the questionnaire. Survey method was adopted for conducting the study. The reliability and validity of scales were checked. Cron-Bach Alpha values were considered for the same. Both the scales (perception of importance scale and awareness scale) had sufficient scores (above 0.7). Data were entered to a computer database using MS Excel computer software. Coding of responses was done before entry and data were transported to SPSS for analysis. Statistical Package for Social Sciences (SPSS) computer software version 20.0 was used for data analysis. Statistical tool used in the interpretation of data includes frequency counts used to tally the different responses of the sample respondents and determine the percentage of frequency distribution. Chi-square test and p values were done to determine the statistical significance between the demographic characteristics of respondents, awareness and use of food labelling information in decision making during purchase of prepackaged foods.

3. Results and Discussion

Of the 500 subjects studied, approximately half of them belong to male and female gender respectively. The age wise distribution of the subjects indicated about one third (32.8%) of subjects were in the 20-29 year age group. With respect to the educational attainment of the study subjects, majority (41.2%) were graduates. Majority of the subjects prefer purchasing foods from regular shops. Availability of product was the most frequent reason for purchase from a regular shop expressed by more than half of the subjects. A small proportion of the study subjects 6.4% were engaged in a business operation. Among the female subjects 13.4% were home makers. It was observed from the Table 1 that approximately 8% of the study subjects were students and pensioners respectively. On studying the preference for trying new brands among the subjects nearly three-fourth (71.4%) reported a tendency to experiment the purchase of new brands occasionally.

It was found from the Table 2 that the manufacture/ expiry date was given utmost importance by a majority (80.6%) in both genders. On comparing price and brand, both were considered as very important by female (46.6% and 39.3% respectively), but the price (43.5%) was considered as very important and brand (40.3%) as important by male. Nearly half of the male subjects (40.7%) perceive a list of ingredients as important, while half of the female (39.3%) perceive it as very important. Nutritional information was considered as very important by 37.3% of females and important by 36% of males. Net weight was considered as very important by one-third of study subjects (34.4% male and 36.4% female). A study by Kaur, *et al.*, (2016)² also indicated that females gave priority to the brand (93.33%) than to the price (70%) and taste (53.33%) of the product. The researchers reported that expiry date information was important and increased label information referrals. In a study by Rao, *et al.*, (2014)⁸, adolescents from Kolkata were vigilant regarding the shelf-life or safety of the product. They read information pertaining to the date of manufacturing or expiration or best before date.

On evaluating the frequency of assessing the food label information among the study subjects it was evident that approximately one-third (33.4%) studied food labels always while 36.6% of subjects evaluated label information frequently. A minimal 5% subjects indicated that they never read the food label information (Table 3).

The two most important factors that promoted reading of food label information included product comparison among 27.3% and curiosity among 20.6% subjects respectively (Table 4).

On studying the major factors deterring reading of food labels (Table 5), it was observed that insufficient time was indicated by 18.8% of study subjects. Lack of nutrition knowledge (14.4%) and lack of interest in reading labels (10.6%) were the other reasons. Other reasons included skeptical to food labels, small font of labels and reading only when purchasing products for the first time (2.6%).

The degree of information among study subjects was vastly in the minimally informed category, with 44.3% of male subjects and 46.9% female subjects indicating the same. Approximately one fourth (27.3%) of male subjects and one fifth (22.3%) of female subjects indicated they were least informed. Only 6.7% of male subjects and 9.3% of female subjects indicated themselves to be very much informed (Table 6).

As evident from Table 7, there was no statistically significant difference regarding the degree of food labelling information among male and female respondents. The association between the sociodemographic variables and degree of information on food labels indicated that a statistically significant relationship can be observed

between level of education ($p = 0.000$) and degree of information regarding food labels. The degree of information that the subjects had regarding food labels increased with increased educational attainment. The results did not reflect a statistically significant difference in the degree of information about food labelling among various age groups ($p = 0.369$), occupations ($p = 0.078$) and between male and female respondents ($p = 0.472$).

The level of information regarding food label information among the study subjects with respect to gender, age, educational attainment and occupation were studied and are depicted in Table 8.

Statistically significant difference in levels of awareness on food labelling according to level of education ($p = 0.025$) and gender (0.02) was observed. On the other hand, there was no difference in levels of awareness on food labelling among different age group ($p = 0.102$) and occupation (0.81).

To conclude, there is increasing awareness with respect to food label information among the study subjects. The factors deterrent to the reading of food labels are lack of time and knowledge. Despite the same, there is no critical evaluation of the food label information by the study subjects that can facilitate an improvement with respect to the purchasing pattern. Enhanced awareness and critical evaluation of food label information can be a factor assisting healthier food choices. Further research into factors that determine the awareness regarding food labels and education on food label information can be a strategy to facilitate healthier food choices and thus reduce the increasing burden of lifestyle diseases.

Table 1. Preference for newer brands among subjects (N = 500)

Preference for newer brands	Frequency (n)	Percentage (%)
Regularly	71	14.2
Occasionally	357	71.4
Never	72	14.4

Table 2. Perceived level of importance regarding various aspects of food label information among subjects (N = 500)

Label Information	Not important		Slightly important		Moderately important		Important		Very important	
	M	F	M	F	M	F	M	F	M	F
Brand	5.9	7.3	7.9	6.5	13.0	12.6	40.3	34.4	32.8	39.3
Price	3.6	5.3	6.7	3.2	11.9	9.3	34.4	35.6	43.5	46.6
Net weight	5.5	6.1	5.5	11.7	14.2	16.2	40.3	29.6	34.4	36.4
Packaging	2.8	4.6	6.7	8.5	17.8	17.0	34.0	34.0	38.7	35.6
Ingredients	4.4	4.1	8.3	10.5	14.2	17.8	40.7	28.3	32.4	39.3
Manufacture/ Expiry date	0.4	0.4	0.8	0.8	2.0	3.2	16.2	15.0	80.6	80.6
Nutritional information	4.7	6.9	7.5	11.7	19.4	17.8	36.0	26.3	32.4	37.3
Serving size	11.5	17.4	13.0	19.0	19.0	23.1	38.0	28.3	19.0	18.2

Table 3. Frequency of reading food labels among subjects (N = 500)

Frequency of reading labels	Frequency (n)	Percentage (%)
Always	167	33.4
Frequently	183	36.6
Rarely	126	25.2
Never	24	4.8

Table 4. Factors promoting reading of food labels among subjects (N = 500)

Factors promoting reading	Frequency (n)	Percentage (%)
Product comparison	136	27.2
Curiosity	103	20.6
Advice from nutritionist	42	8.4
Family member habit	49	9.8
Special dietary need	56	11.2
None in particular	114	22.8

Table 5. Factors deterring reading of food labels among subjects (N = 318)

Factors deterring reading	Frequency (n)	Percentage (%)
Lack of nutrition knowledge	72	14.4
Lack of interest	53	10.6
Skeptical to label information	42	8.4
Small fonts of label	14	2.8
Reading information only on first purchase	13	2.6
Insufficient time	94	18.8
None in particular	182	36.4

Table 6. Degree of information regarding food labels among subjects (N = 500)

Degree of information	Male n(%)	Female n(%)	Total n(%)
Least informed	69 (27.3)	55 (22.3)	124 (24.8)
Minimally informed	112 (44.3)	116 (47)	228 (45.6)
Moderately informed	55 (21.7)	53 (21.5)	108 (21.6)
Very much informed	17 (6.7)	23 (9.3)	40 (8)
Total	253(100)	247(100)	500

Table 7. Association of socio-demographic characteristics and degree of information regarding food labelling among subjects (N = 500)

Socio-demographic variables.	Degree of Information				Chi Square value	P value
	Least informed	Minimally informed	Moderately informed	Very much informed		
Gender					2.516	0.472
Male (253)	69	112	55	17		
Female (247)	55	116	53	23		
Educational Level					60.494	0*
Primary school	2	2	2	0		
Middle school	1	0	0	4		
High school	8	10	16	7		
Diploma	25	49	30	7		
Graduate	49	106	39	12		
Post-Graduate	39	61	21	10		
Age group					12.997	0.369
20-29	41	77	36	10		
30-39	35	65	27	7		
40-49	24	34	23	6		
50-59	15	31	13	9		
60-69	9	21	9	8		
Occupation					19.477	0.078
Employed	90	137	76	19		
Business	9	13	6	4		
Housewife	9	35	13	10		
Student	11	21	5	3		
Pensioner	5	22	8	4		

*significant at 5% level

Table 8. Association of Socio-demographic characteristics of study subjects and the level of awareness regarding food labelling among subjects (N = 500)

Socio-demographic variables.	Level of awareness					Chi Square value	P value
	Not at all aware	Slightly aware	Somewhat aware	Moderately aware	Extremely aware		
Gender						9.62	0.02*
Male (253)	0	4	60	110	79		
Female (247)	0	3	72	75	97		
Educational Level						36.8	0.025*
Primary school	0	1	3	5	2		
Middle school	0	0	18	10	13		
High school	0	1	35	47	28		
Diploma/ Intermediate	0	5	47	77	77		
Graduate	0	0	29	46	56		
Post-Graduate	0	1	0	4	1		
Age group						6.08	0.912
20-29	0	2	46	59	57		
30-39	0	3	31	48	52		
40-49	0	0	24	36	27		
50-59	0	1	18	28	21		
60-69	0	1	13	14	19		
Occupation						7.6	0.81
Employed	0	5	82	125	110		
Business	0	0	10	13	9		
Housewife	0	2	19	24	22		
Student	0	0	11	11	18		
Pensioner	0	0	10	12	17		

*significant at 5 per cent level

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