

# A Study On Management Students' Awareness Towards Product Labeling For Food Products In Mumbai

**Snehal Chincholkar**

Faculty of Management,

Vivekanand Education Society's Institute of Management Studies, Mumbai, India

Ph.D. Scholar, Symbiosis International University (SIU),

Pune, Maharashtra 412115, India.

## ABSTRACT

Labeling is defined as any written, graphic or electronic communications on packaging or on a separate associated label. It's a very important part of any packaging which provides information to consumers. Food labeling includes name of product, brand name, nutritional value, expiry date, ingredients and some other information. Label is primary source of information which also helps in promotion. **Purpose** –The objective of this research paper is to find out the management students awareness towards food product labeling while they buy food products. With this, paper is also trying to find out which type of information is most important in consumer point of view before making their purchasing decision. **Design/methodology/approach** –Detailed literature review has been done and based on that questionnaire has been designed to identify the management students awareness towards food product labeling. After that data has been collected using online survey method and further analyzed using SPSS. **Findings** –The empirical findings of this research showed that students look for information available on label of food products and there is no significant difference between male and female behaviour. With this price and expiry date is most seek after information on food label while information related to nutritional value is last. **Practical implications** – Factors identified by this research can help food manufacturing companies to design their marketing strategies while government and non-government agencies can design their strategies to increase consumer awareness. **Originality/Value** – This paper will add value to the current literature specifically related product labelling. **Paper Type:** Research Paper.

**Key words:** *Consumer Awareness; Product Packaging; Product Labelling.*

## 1. INTRODUCTION

Packaging is defined as the art, science and technology of covering the product for protecting during various stages of business such as distribution process such as transport, storage, trade, and use. Basic purpose of packaging is physical protection, contamination, Information, marketing, protection from counterfeiting packaging and measurement. While labeling is defined as any written, graphic or electronic communications on packaging or on a separate associated label. In case of food label it's printed, graphical or symbolic information which should be available with food item (Asiamah, 2006). Labelling includes name of product, brand name and ingredients etc. which helps in providing information about the product. Food product labelling also helps in providing various nutrition and health related information to consumers. Slowly food companies are using various product differentiation strategy using packaging and this trend can be seen across the globe (Marks, 1984 and Kim et al., 2000). Legally each food processing company should fulfill the requirement of food label for the benefit of consumer's health and safety (Ababio et al., 2012).

Labelling also help seller to sell the product while on other side it also helps consumer to compare the similar products. Though objective of packaging and label is to protect and to provide information, now a day's marketers are using it as a marketing tool. As packaging is first contact point for consumer (Rundh, 2005) it's an effective way of brand communication with its primary functions such as storage, shipping and supply chain which consumers do not see directly but it is necessary for smooth distribution of the product from manufacturer to final consumer (Sehrawet&Kundu, 2007). At self-service counter packaging plays an important role, according to one research by Silayoi and Speece (2007) it had been concluded that approximately 73 % products are sold on self-services base where packaging played an important role. Each country has their own set of rules and regulation for food product packaging and labelling. In India according to Food Safety and Standards (Packaging and Labelling) Regulations Act, 2011 every food item should have eleven type of information which includes name of the food, list of ingredients, nutritional information, declaration regarding vegetarian and non-vegetarian, declaration regarding food additives, net weight/quantity, lot/code/batch identification number, date of manufacture, best before use by date, instruction of use and name and complete address of the manufacturer.

## 2. LITERATURE REVIEW

Silayoi and Speece (2004) argued that purchasing of FMCG products are low involvement decision making process. Further they also suggested that there are two elements in product packaging known as visual element and information element which impact affective and cognitive side of consumer decision respectively. Adelina and Morgan (2007) suggested in their research that packaging is one of the most valuable tool in current marketing communications. Mazhar *et al* (2015) in their study suggested that product packaging influence consumers significantly in their purchase decision for FMCG product.

There are various components of visual element packaging such as design, colour, packaging material, visual appeal etc. Some previous research have found strong association between colour of the product and brand here culture also plays an important role as each culture has their own unique colour preference (Silayoi and Speece, 2004). Another visual element is photography and attractive packaging which also help in creating an image of product and attract customers (Silayoi and Speece, 2004). An earlier study by Robert *et al.*'s (2001) indicated that the effects of pictures on packaging are depended on the product category and may be useful to experienced consumers. Grossman and Wisenblit (1999) argued in their research that specifically for low involvement products graphics and colour on package is important for effective marketing communication. As in case of low involvement product packaging becomes first contact point for consumers and increases consumer's awareness. In package design recall is better for verbal stimuli when it is on right hand side and for non-verbal stimuli it is better if it is left hand (Rettie and Brewe, 2000).

Second element of product packaging is information element (Silayoi and Speece, 2004) which plays an important role in consumer decision making process. This information element makes the label of the product. Food label provides information related to nutritional level (Grunert and wills, 2007; Mackison *et al.*, 2010) information related to allergies (Voordous *et al.*, 2009) and expiry date (Sanlier and Karakus, 2010). These information plays an important role in consumer decision making process. Information available on food labels help consumers to educate about price, ingredients of the product, expire date, nutritional value of food etc. which helps them to compare with other competitive products (AL Tamimi and Company, 2004) and finally make their decisions. This also encourages the food manufacturing companies to come with some innovative strategies such as enhancing the nutritional value of product to promote their product which ultimately results in win-win situation for both consumers and manufacturers (AMEinfor.com, 2008). A survey by Grocery Manufacturers of America (2002) concluded that 82.0% consumer look for price before making buying decision. One more research by the United

Kingdom Consumer's Association (1995) identified price, quality, nutrition value, family preference, ease to prepare and brand as important parameter for consumers buying decision related to food products. Similar study suggested that if the product is new advertisement and visual appearance plays an important role in consumer buying decision process followed by brand name and preparation time. One more study by Angela Peters-Teixeira and Neela Badrie on consumer perception towards food packaging in West Indies suggested that quality of information on product label, visual appeal and brand positively impact consumer decision while type of packaging material could impact negatively. Consumers also thought that reading so much information is very time consuming and sometime information was too difficult to follow (Peters-Teixeira, A. and Badrie, N., 2005). One more research suggest that food label help consumer in pre and post purchase decision making process for food product (Van der Merwe et al., 2014).

A research by Sushil Kumar and Jabir Ali (2011) for Indian consumer indicated that food label information is gender and age sensitive. With this for lifestyle products consumer pay more attention on product labelling and mostly these consumers belonged to higher income and education level group. As information is available on food product label it is also very important that regulatory agencies should sensitize and inform the consumers about the importance of such information as enforcing rules on the food processing/packaging companies will be only effective when buyers will be informed.

### 2.1 Food Labeling in India

In case of food products, labeling becomes very important as this is the source of information for consumers. Different countries across the globe have different rules and regulations related to food product labelling. According to Food Laws each and every packaged food item has to be labeled in accordance to the law applicable in the respective country. According to Indian Food Safety and Standards (Packaging and Labelling) Regulations Act, 2011 in India every food item should have eleven types of information mentioned on label.

As per Indian Regulation food product must have:

1. Product name and category of food.
2. An ingredient list in descending order of weight
3. Logo of vegetarian and non-vegetarian food.
4. Nutrition fact panel or information which includes energy, protein, carbohydrate (sugar) and fat.
5. The shelf life (Use by or Best Before Date)
6. Storage conditions
7. The name & address of the manufacturer, packer and / or seller
8. The country of origin (in case of imported foods)
9. The weight
10. Instructions for use
11. Health claims establish a relationship between a food & disease or medical condition
12. Nutritional claims quickly inform a consumer of nutritional value of a product for example 'Low Fat' or 'Zero Cholesterol'

With this mandatory information manufacturer or the packer has complied with the general requirements of labeling such as label should be on container/packet, it should be correct, clear and easily legible and shall be in familiar language. While in case of food product exported it has to follow the food laws and regulations applicable to the importing country.

As labeling is mandatory for food manufacturer, consumer awareness towards this label is also important so keeping in mind the same objective this research is focused on management students to identify their awareness towards food product label.

### 3. METHODOLOGY

The research focused on Indian young consumer currently pursuing their management degree in Mumbai. The objective of research was to investigate their behaviour while purchasing food product specifically towards the information available on label. Taking the purposes into consideration, the three research hypotheses has been tested as *Table:1* indicates.

*Table:1 Research Hypothesis*

Research Hypothesis
H <sub>1</sub> : There is significant difference between male and female students when it comes to checking labels on food products.
H <sub>2</sub> : There is difference in the participants' rank ordered preferences for 5 elements of information available on food label.
H <sub>3</sub> : There is significant difference between male and female when it comes to rank ordered preferences for 5 elements of information available on food label.

#### 3.1 Respondents

A total of 152 respondents were involved in quantitative research and data was collected through online and offline survey method from a management college, using a pre-tested structured questionnaire. Out of 152 responses 138 were usable sample and data was collected from November 2017 to January 2018.

#### 3.2 Data Analysis and Findings

After data collection data has been analysed using SPSS and finding of same is as follows. All the respondents were management students. Gender profile of respondents is explained in *Table:2*

*Table:2 Gender profile of respondents*

N=138		
Gender		
Male	75	54.35%
Female	63	45.66%

Responded were asked whether they check information of label before buying food products. Out of 138 respondents 37 were strongly agree, 72 were agree, 21 were neutral about it while 8 were disagree. To find out whether there is any difference between male and female behavior, further statistical analysis has been done. *Table 3(a)* and *3(b)* indicate the descriptive statistics related to gender and label information.

Table:3 (a) Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	138	1.00	2.00	1.4565	.49992
Label Information	138	1.00	4.00	1.9855	.78290
Valid N (listwise)	138				

Table:3 (b) Gender \* Label Information Crosstabulation

Count		Label Information				Total
		Strongly Agree	Agree	Neutral	Disagree	
Gender	Male	20	40	10	5	75
	Female	17	32	13	1	63
Total		37	72	23	6	138

Then first hypothesis was tested which was:

H<sub>1</sub>: There is significant difference between male and female behaviour when it comes to check the labels of product while purchasing any food product.

To test the first hypothesis Mann-Whitney test was used as data was not normally distributed.

Table:3 (c) Test Statistics

	Label Information
Mann-Whitney U	2357.500
Wilcoxon W	5207.500
Z	-.023
Asymp. Sig. (2-tailed)	.981

a. Grouping Variable: Gender

The result showed the p value >0.05 so the alternative hypothesis has been rejected and it is concluded there is no significant difference between male and female behaviour when it comes to check the information available on labels of food products while purchasing.

Then respondents were asked the questions related to type of information available and label on likert scale where 1 indicated strongly agree and 5 strongly disagree. Descriptive statistics related to type of information on label showed that out of five most important element of information price is most important type information consumers look for followed by expire date and other information. Surprisingly information related to nutritional level is least sought after information (Table:4).

Table:4 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Price	138	1.00	4.00	1.3333	.57099
Expire Date	138	1.00	4.00	1.3913	.74906
Other Information such as how to use , store etc.	138	1.00	5.00	2.1812	.92204
Ingredient	138	1.00	5.00	2.5217	.91394
Nutrition Level	138	1.00	5.00	2.6449	.92650
Valid N (list wise)	138				

H<sub>2</sub>: There is difference in the participants' rank ordered preferences for five element of information available on food label.

To test the second hypothesis (H<sub>2</sub>)Friedman test was conducted to determine whether students has a differential rank ordered preference for the five type of information available on food product label. Results of that analysis showed that there was a differential rank ordered preference for the five type of information available on food product label (Table:5 and Table:6)and p value is<0.05 , so nullhypothesis has been rejected and it is concluded that there is difference in the participants rank order preferences for five element of information available on food label. Price and expire date is most important element of label information as both have their mean rank score 1.96.

Table:5 Table Ranks

	Mean Rank
Nutrition Level	3.98
Expire Date	1.96
Ingredient	3.79
Price	1.96
Other Information such as how to use , store etc	3.30

Table:6 Test Statistics<sup>a</sup>

N	138
Chi-Square	262.428
df	4
Asymp. Sig.	.000

a. Friedman Test

H<sub>3</sub>: There is significant difference between male and female when it comes to rank ordered preferences for five elements of information available on food label.

Third hypothesis has been tested using Kruskal-Wallis Test. *Table:7* shows the results of the non-parametric test using the Kruskal-Wallis Test for the five elements of information on label of food product. The results showed a significant mean difference between gender for(E5)other type of informationsuch as how to use, store etc.(X<sup>2</sup> =5.116, p<0.05),so nullhypothesis has been rejectedfor this element and it is concluded that there is difference in the participants' rank ordered preferences for other type of information (E5).

Table:7 Test Statistics<sup>a,b</sup>

	Nutrition Level (E1)	Expire Date (E2)	Ingredient (E3)	Price (E4)	Other Information such as how to use , store etc (E5)
Chi-Square	1.958	2.152	.029	1.111	5.116
df	1	1	1	1	1
Asymp. Sig.	.162	.142	.865	.292	.024

a. Kruskal Wallis Test ,b. Grouping Variable: Gender

Further*Table:8* shows the mean rank for E5.The mean rank for female students is 1.9683 and male is 2.3600 so it can be concluded that female students pay more attention to this element as compared to male students.

Table:8 Report

E5 : Other Information such as how to use , store etc

Gender	Mean	N	Std. Deviation
Male	2.3600	75	.98145
Female	1.9683	63	.80258
Total	2.1812	138	.92204

Further analysis also suggested that consumers pay more attention to information available on label while buying unbranded product than branded products (*Table: 9, Figure: 1*).



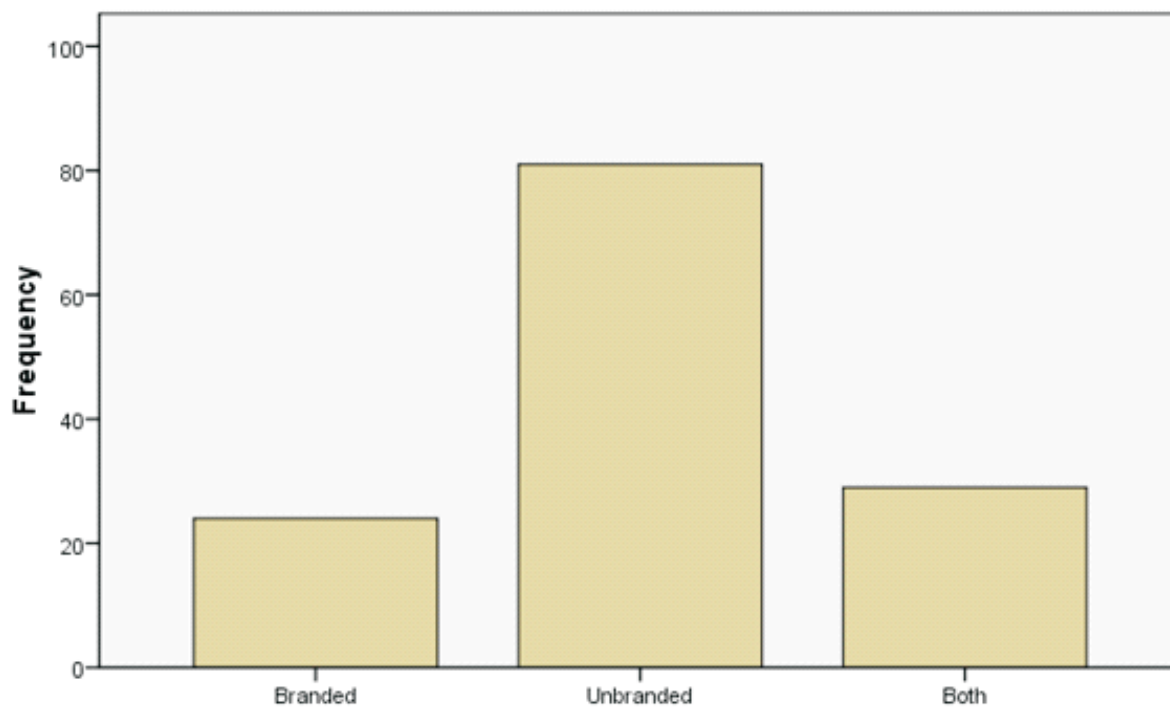
Table:9 Descriptive Statistics

I am more careful about statutory information on food product while buying.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Branded	24	17.4	17.9	17.9
	Unbranded	81	58.7	60.4	78.4
	Both	29	21.0	21.6	100.0
	Total	134	97.1	100.0	
Missing	System	4	2.9		
Total		138	100.0		

14.I am more careful about statutory information on food product while buying

.....



14.I am more careful about statutory information on food product while buying .....

Figure:1 Respondents response “I am more careful about statutory information on food product while buying”



#### 4. CONCLUSION

From the entire study it can be concluded that young consumers are more knowledgeable and they do check for information available on label only price and expiry date is most preferred type of information they look for. Surprisingly nutritional information is least important element of information students look for before their purchase. With this it is also found that female students pay more attention to other type of information such as how to use, how to store etc. Consumers check the product label more often while they are buying unbranded products. Based on findings of research marketers and statutory bodies can make their strategies to attract as well as educate customers. This study will contribute to existing literature review on online consumption by supporting various studies done on consumer buying behaviour and product label information.

#### 5. LIMITATION AND FURTHER SCOPE OF RESEARCH

There are a few limitations in this entire study such as geographic location and limited sample type as data was collected only from Mumbai and the respondents were management students its managerial implication may or may not apply in general. As sample size was limited, to reach some conclusion further in-depth research is required. It could be possible that the respondents differ in their preferences across demographic and geographic factors such as age, income etc. So, there is scope of further research which will give more comprehensive conclusion for consumer decision making process and role of label for food products.

#### REFERENCES

- Ababio P. F., Adi D. D., and Amoah M. (2012). Evaluating the awareness and importance of food labeling information among consumers in the Kumasi metropolis of Ghana. *Food control*, 26(2), 571-574.
- Angela Peters -Teixeira, Neela Badri, (2005), 'Consumers' perception of food packaging in Trinidad, West Indies and its related impact on food choices', *International Journal of Consumer Studies*, 29, pp 508–514.
- Asiamah, K. (2006). Food labeling are we doing it right with the right information. *African Journal of Food Agriculture Nutrition and Development*, 6(1).
- Bandara, B. E. S., De Silva, D. A. M., Maduwanthi, B. C. H., & Warunasinghe, W. A. A. I. (2016). Impact of food labeling information on consumer purchasing decision: with special reference to faculty of Agricultural Sciences. *Procedia food science*, 6, 309-313.
- Ebrahim Variawa, (2010), 'Buying behaviour and decision-making criteria of Base of the Pyramid consumers: the influence of packaging on Fast Moving Consumer Goods customers' brand experience', A research project submitted to the Gordon Institute of Business Science, University of Pretoria.
- GMA Survey, (2002), 'Brand loyalty high among American consumers. New Grocery Manufacturers of America Survey'. [WWW document]. URL [http:// retailindustry.about.com/](http://retailindustry.about.com/)
- Gonzalez-Roa, M. D. C., & Calatrava-Requena, J. (2008). Food Labeling Use and Differentiated Consumers Behavior: A Survey Analysis in Spanish Food Market. In *12th Congress of the European Association of Agricultural Economists (EAAE)*. [WWW document]. URL <http://ageconsearch.umn.edu/bitstream/43541/2/097.pdf> (accessed on 27 July 2010).
- Grunert K. G. and Wills J. M. (2007). A review of European research on consumer response to nutrition information on food labels. *Journal of Public Health*, 15, 385-399.

- Insall, L, (2000), 'Nutrition information: European Union. In Food Labelling (ed. by J.R. Blanchfield)', pp. 125–146. Woodhead Publishing Ltd, Cambridge.
- Mackison D., Wrieden W. L. and Anderson A. S. (2010). Validity and testing of short questionnaire developed to assess consumers use, understanding and perception of food labels. *European Journal of Clinical Nutrition*, 64(2), 210-217.
- Mazhar, M., Daud, S., Arz Bhutto, S., & Mubin, M. (2015). Impact of Product Packaging on Consumers Buying Behavior: Evidence from Karachi.
- Peters-Teixeira, A., & Badrie, N. (2005). Consumers' perception of food packaging in Trinidad, West Indies and its related impact on food choices. *International Journal of Consumer Studies*, 29(6), 508-514.
- Rundh, B., (2005), 'The multi-faceted dimension of packaging', *British Food Journal*, pp. 670-683.
- 10. Sehrawet, M., & Kundu, S.C., (2007), 'Buying behaviour of rural and urban consumers in India: the impact of packaging', *International Journal of Consumer Studies*, 31(6), pp 630-638.
- Sanlier N. and Karakus S. S. (2010). Evaluation of food purchasing behaviour of consumers from supermarkets. *British food Journal*, 112, 140- 150.
- Silayoi, P., & Speece, M ,(2007), 'The importance of packaging attributes: a conjoint analysis approach', 41 (11), pp. 1495-1517.
- Silayoi, P., & Speece, M, (2004), 'Packaging and Purchase decisions', *British Food Journal*, pp 607-628.
- Silayoi, Pinya, and Mark Speece. "The importance of packaging attributes: a conjoint analysis approach." *European journal of marketing* 41, no. 11/12 (2007): 1495-1517.
- Sushil Kumar , Jabir Ali, (2011), 'Assessing Consumer Awareness and Usage of Food Labels and Influences on Food Buying Behavior', Prepared for presentation at 21st Annual IFAMA World Forum and Symposium on the Road to 2050: Sustainability as a Business Opportunity, Frankfurt, Germany NCI2 TM: 2014 ISBN: 978-81-927230-0-6 327 Sinhgad Institute of Management and Computer Application (SIMCA)
- Underwood, R.L., Klein, N.M., & Burke, R.R., (2001), 'Packaging communication: attention effects product imagery', *Journal of Product and Brand Management*, 10 (7), p.403.
- Van der Merwe D., Bosman M., and Ellis S. (2014). Consumers opinions and use of food labels: results from an urban-rural hybrid area in south African. *Food Research International*, 63, 100-107.
- Voordouw J. Cornelisse-Vermaat J. R., Yiakoumaki V., Theodoridis G., Chryssochidis G., and Frewer L. J. (2009). Food allergic consumers preferences for labeling practice. A qualitative study in a real shopping environment. *International Journal of Consumer Studies*, 33, 94-102.

#### Websites

- <http://www.netcomuk.co.uk/~media/fooddates.htm>
- <http://www.pfionline.com/index.php/columns/cold-chain/85-packaging-and-labellingof-frozen-food>.
- [http://en.wikipedia.org/wiki/Packaging\\_and\\_labeling](http://en.wikipedia.org/wiki/Packaging_and_labeling)