

## Consumer Comprehension and Usage of Nutritional Labeling in Food Purchasing

A.M.C. Amarakoon, M.G.P.P. Mahindaratne  
*Uva Wellassa University, Badulla, Sri Lanka*

and

P. Dematawa  
*CIC Agri Businesses (Pvt) Limited, Pelwehera, Sri Lanka*

### Introduction

Consumer behavior in food market has been changed rapidly over time and as reported by Withanage and Jayasinghe (2010), Sri Lankan consumers have become more conscious of the nutrition, health, and quality of the food they eat; hence healthiness has become an important criterion for food purchases. Consumers are curious to search more information for the constituents of foods they consumed. Among many information sought by the consumers, nutritional information has become important as present day consumers keen to know about the wholesomeness of the food they consume. Identifying that, many of the manufacturers and marketers have been placing nutrition fact panel on packed foods. Though this nutritional labeling appears on the package, the utility of this information, in other word how consumers use this information has not been assessed. Hence this study examines the significant factors that affect on consumer comprehension and usage intention of nutrition labeling on food packages.

### Methodology

A conceptual model was framed incorporating different labeling factors, product factors and background variables that affect on consumer comprehension and usage intention of nutrition labeling by expanding the theoretical framework used by Feunekesa et al. (2008) in their research of “Front-of-pack nutrition labelling: Testing effectiveness of different nutrition labelling formats front-of-pack in four European countries”. According to the above model, Consumer Usage Intention of Nutrition Labeling is a function of consumer friendliness towards nutritional labeling (e.g. comprehension, credibility and liking), perceived healthiness of the product and background variables (e.g. demographic factors, behavior and attitudes towards health, nutrition awareness, occasion of purchase and purchase motive). A structured questionnaire was developed based on the conceptual framework developed and pre-tested. Administering the questionnaire, primary data were collected from 150 super market consumers in Kandy and Colombo districts. Socio-demographic characteristics of the sample and usage intention of nutrition label in the different socio-demographic segments were analyzed applying descriptive statistics. Impact of the different factors affecting on the usage intention of nutrition label was analyzed using multiple linear regression.

Dependent variable in the model, consumer usage intention of nutrition labeling (Mean value of five point likert scale scores) was measured as the “Generalized Intention” method proposed by Francis et al. (2008). Independent variables (Table 1) were measured using most relevant assessment scales.

$$\text{Consumer Usage Intention of Nutrition Labeling} = \frac{\text{Expect to use label} + \text{Want to use label} + \text{Intend to use label}}{3}$$

Table 1. Measurement of independent variables.

Variable category	Sub-category	Measurements
Consumer friendliness	Comprehension	Noticeability, readability, interpretability terminology and information load
	Credibility	Quality guarantee, source of information
	Liking	Interest of consumers
Perceived healthiness of the product		Perception of healthiness of the product
Background variables profession	Demography	age, gender, education, income, family size
	Behaviour and attitude	Willingness to pay, confidence to use information, dietary habits, time pressure, reading of nutritional claims
	Nutrition awareness	Nutrition knowledge, diet-health awareness
	Occasion of use Purchase motive	

## Results and Discussion

According to the descriptive analysis, a greater proportion of individuals of 31 to 40 years, with tertiary education, when five to six members in the family and females were having comparatively higher usage intention of nutritional label. This implies that the consumers at the middle age tend to use nutrition label more than the other age groups and when they are educated and with larger family size, there is a higher tendency to use nutrition label.

Table 2. Result of regression analysis.

Predictor Description	Predictor	Coefficient	P value
	Constant**	1.8073	0.000
Noticeability of Nutrition Label	NOTICE**	0.07457	0.034
Readability of Nutrition Label	READABLE	0.06413	0.087
Terminology Used in Label	TERMIN	0.01482	0.593
Interpretability of Nutrition Values	INTRPRET**	0.06855	0.024
Information Load on Nutrition Label	IN_LOAD	-0.03262	0.118
As a Reliable source of Information	IN_SOURC	0.00268	0.951
As a Quality Guarantee	GUARANT	0.01033	0.763
Interest to Read Nutrition Label	INTEREST**	0.05862	0.022
Perceived Healthiness of Product	P_HEALTH**	-0.06115	0.012
Willingness to Pay for Nutrition Info.	WTP**	0.06755	0.047
Special Dietary Habits	SP_HABIT	0.05345	0.464
Confidence to Read Nutrition Label	CONFID	0.02549	0.396
Time Pressure	TIME_PR**	-0.05381	0.003
Use of Nutrition Claims	CLAIM	-0.02777	0.056
Knowledge Regarding Nutrition	NUTR_KNW	0.05037	0.148
Diet- Health Awareness	D_H_AWRE	0.02726	0.394
Occasion of Nutrition Label Use	OCCASION**	0.03563	0.016

\*\* Significant at 95% S = 0.279011 R-Sq = 80.9% R-Sq (adj) = 78.4%

R-Sq (adj) is 78.4% indicating that 78.4% of the variation of usage intention of nutritional labeling has been explained by regression model. As given in the table 2, among consumer

friendliness factors of nutrition label, its' noticeability, interpretability of nutrition label and interest to read label were significantly impacted on consumer use of nutrition label. Accordingly, printing the nutrition label in a visible place with a simplified format which facilitates the interpretation would be more effective rather than just display nutrition fact panel on back of pack as in most cases. Also, consumer perception regarding the healthiness of the food, time pressure for shopping, willingness to pay for more label information, and occasion of nutrition label usage were significantly affected on their intention to use nutritional information. Further, perceived healthiness of product and time pressure on shopping were negatively affected on the usage intension of nutrition labeling so that product promotion and convenient showroom arrangement would be helpful to remove those hindrances. Among different purchasing occasions, product purchase for the first time, product comparison, choosing products when following special diets and the time of product use were significant.

### **Conclusions**

Consumer friendliness of nutrition labeling (its noticeability, interpretability and liking of the consumer), perceived healthiness of the product in general and time pressure in shopping have significantly affected on consumer intention to use nutrition labeling. Segments with higher usage intention of nutrition label can be identified by comparing the mean and median values of some of the socio-demographic parameters where the middle aged consumers with higher education and larger family size show a higher tendency to use nutrition label.

### **References**

- Feunekesa, G.I.J., Gortemakera, I.A., Willemsa, A.A., Liona, R., Kommerb, M.V., 2008. Front-of-pack nutrition labelling: Testing effectiveness of different nutrition labelling formats front - of-pack in four European countries. *Appetite*, 50(1), 57-70.
- Withanage, W.W.D.H.C., Jayasinghe, J.A.S.C., 2010. The effect of healthy lifestyle on the relationship of health consciousness and attitude towards fast foods in Sri Lanka, 360.