

An investigation of consumers' awareness and consideration on the nutrition facts table of dairy products when making the buying decision in the Balangoda area

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1. Introduction

Dairy products are an essential part of the diet in many regions of the world. Dairy products often give the foundation for the first foods introduced to infants as they provide a good balance of nutrients and a variety of essential vitamins and minerals. In recent years nutritional issues in Sri Lanka have been increased due to wrong food consumption patterns. There are many significant diet-related public health problems and diseases occurred in recent years. The World Health Organization reported that dietary factors accounted for approximately 30% of cancers in industrialized countries. People can decrease diet-related public health problems and diseases from concerns of food nutrition. Therefore, the nutrition facts table on the label of food products can minimize these health issues. It gives information on serving size, calories, and percentage of daily intake value of food products. The nutrition facts table can affect the consumers' purchasing behaviour because some evidences reveal that nutrition information may allow consumers to switch consumption away from unhealthy products toward healthy products more easily (Gary & Zarkin, 1992).

Considering the significant role of consumers' awareness about food labels in making healthy food choices, this survey tries to get comprehension about consumers' awareness and consideration on nutrition facts table of dairy products when making the buying decision in Balangoda area. The study also identifies factors that consumers consider other than nutrition facts, level of nutrition knowledge, and use of their nutrition knowledge and understanding of nutrition information on food labels.

2. Materials and Methods

This study used primary data, and data were collected through structural questionnaires. It was distributed as a Google form questionnaire with randomly selected people in Balangoda area. The study location is Balangoda, and the target people of this study are the people who use dairy products in the Balangoda area. The simple random sampling technique is used as a sampling technique, and the sample size of this study was 200 respondents. The first part of the questionnaire sought socio-demographic profiles such as gender, age, marital status, education, and family's monthly income. The second part of the questionnaire had questions about consumers' awareness and consideration of the nutrition facts table of dairy products using open-ended, close-ended questions. It also included questions seeking consumers' consideration of other factors when they purchase except for the nutrition facts table of dairy products. Although consumers' perception of dairy products, nutrition information, how these affects their buying behaviour. Consumer knowledge about the nutrition of dairy products was captured by using close-ended questions. All these questions were created to fulfil the broad objective and other specific objectives. Data analysed by Binary Logistic Regression and Descriptive Statistics using SPSS (Statistical Package for Social Sciences) version 25.

3. Results and Discussion

Table 01. Variables in the equation

	B		S.E.		Wald		df		Sig.		Exp(B)	
	A	C	A	C	A	C	A	C	A	C	A	C
Gender	0.072	0.200	0.537	0.410	0.018	0.239	1	1	0.893	0.625	1.075	1.222
Age	-0.083	-0.057	0.029	0.026	8.242	4.878	1	1	0.004*	0.027*	0.920	0.945
Marital status	1.754	0.840	0.710	0.543	6.102	2.398	1	1	0.014*	0.122	5.775	2.317
Level of education	1.816	0.980	0.646	0.330	7.890	8.818	1	1	0.005*	0.003*	6.146	2.665
Level of monthly income	0.000	0.000	0.000	0.000	1.620	0.056	1	1	0.203	0.183	1.000	1.000
Use of dairy products	0.585	-0.071	1.429	1.339	0.168	0.003	1	1	0.682	0.958	1.795	0.932
Constant	-1.723	-1.586	2.448	1.756	0.495	0.816	1	1	0.482	0.366	0.179	0.205

B: coefficient, S.E.: standard error, Wald: wald chi-square value, df: degrees of freedom, Sig.: significance level, Exp(B): odds ratios, A: Awareness on the Nutrition Facts Table of Dairy Products, C: Consideration on the Nutrition Facts Table of Dairy Products

Note: * statistically significant *p* at the 0.05 level

Demographic characteristics by awareness on the nutrition facts table of dairy products

Binary logistic regression was used to determine the influence of the predictor variables (gender, age, marital status, level of education, level of monthly income, use of dairy products for fulfill needs) on outcome variable (consumer awareness on the nutrition facts table of dairy products).

The full model containing all predictors was statistically significant, $\chi^2(6, N=200) = 62.535$, with a *p*-value of 0.000 ($p < 0.000$), indicating that the model was able to distinguish between predictor variables. The results demonstrated a good fit of data to the model. The log-likelihood ratio, which measures the goodness of fit is 96.470. This ratio is relatively low, implying that the model fit is perfect. The model as a whole explained between 52.4% (Nagelkerke R squared) of the variance in predictor variables. Therefore, the Classification Table is correctly classifying the outcome for 88.4% of the cases. This indicated the existence of a moderately strong relationship between prediction and grouping for this model.

In assessing the influence of demographic indicators of the respondents, the estimated coefficients for age (0.004), marital status (0.014), and level of education (0.005) were found statistically significant; indicating that these factors are likely to influence the consumer awareness on nutrition facts table of dairy products. Exp(B) value (odds ratio) for age is 0.920, means that for each one unit increase in age, there is lesser likelihood in awareness of nutrition facts table of dairy products of 0.920 units (Odds ratio > 1). According to the odds ratio, highest impact shows in level of education (6.146) (Table 01).

Demographic characteristics by consideration on nutrition facts table of dairy products

Binary logistic regression was used to determine the influence of the predictor variables (gender, age, marital status, level of education, level of monthly income, use of dairy products for fulfill needs) on outcome variable (consumer consideration on the nutrition facts table of dairy products).

The full model containing all predictors was statistically significant, $\chi^2(6, N=200) = 30.667$, with a *p* value of 0.000 ($p < 0.000$), indicating that the model was able to distinguish between predictor variable and demonstrating adequate fit of data to the model. The Model Summary provides the 156.468 log-likelihood ratio which measures the goodness of fit. This ratio is

relatively low, implying that the model fit is perfect. The model as a whole explained between 26.2% (Nagelkerke R squared) of the variance in predictor variables. Classification Table is correctly classifying the outcome for 70.7% of the cases.

In assessing the influence of demographic indicators of the respondents, the estimated coefficients for age (0.027) and level of education (0.003) were found statistically significant, indicating that these factors are likely to influence the consumer consideration on the nutrition facts table of dairy products. Exp(B) value (odds ratio) for age is 0.945, means that for each one unit increase in age, there is lesser likelihood in consideration of nutrition facts table of dairy products of 0.945 units (Odds ratio > 1). According to the odds ratio, highest impact shows in level of education (2.665) (Table 01).

Table 01 shows effect of demographic characteristics to consumers' awareness and consumers' consideration on nutrition facts table of dairy products. Higginson et al. (2002) cite studies which indicate that in the UK 62 % of consumers are aware of nutrition labels only 22%-59% of adults look for information on nutrition when shopping.

Factors consider other than the nutrition facts table

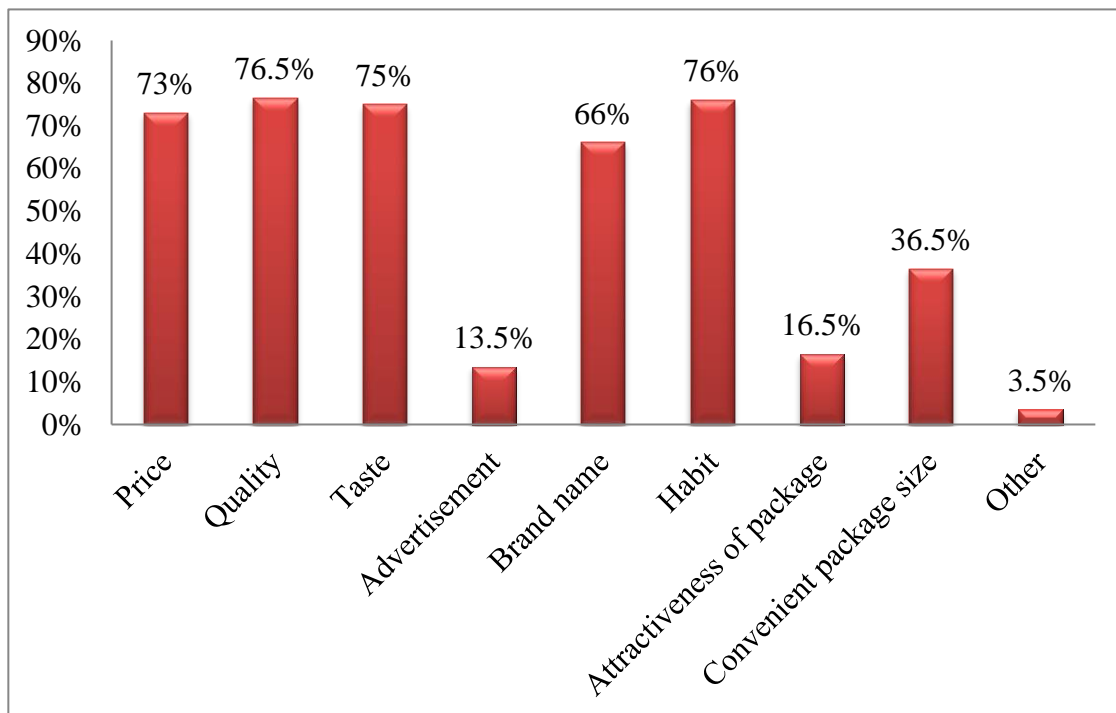


Figure 1. Factors consider other than the nutrition facts table

Product quality is shown to be a significant factor with 76.5% of the impact on consumers when purchasing dairy products.

Consumers' knowledge regarding nutrition facts of dairy products

For the purpose of investigating consumers' knowledge of the nutrient components of dairy products, they were asked to give their opinions for four statements as their knowledge. For the first statement 74.5%, the second statement 86%, the third statement 53.5%, and the fourth statement 80.5% were correctly answered. As an average 73.6% consumers' have knowledge about nutrition of dairy products.

4. Conclusions

The level of awareness on the nutrition facts table of dairy products among consumers in Balangoda area is relatively high (77%). However, most consumers do not consider such information to make their purchases. Awareness and consideration of nutrition facts table in Balangoda area does vary according to demographic characteristics of consumers. Among predictor variables age, marital status, and level of education were statistically significant in terms of awareness on nutrition facts table of dairy products and age, level of education were statistically significant in terms of consideration on nutrition facts table of dairy products. Results indicate that product quality is the main factor except for the nutrition facts table, which consumers considered. The study highlights as an average 73.6% have knowledge about nutrition of dairy products.

5. References

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