

An analysis of consumer awareness and preference of eco-labels in Galle district

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1. Introduction

A healthy environment is essential for the survival of all living creatures. We should treat the environment around us as if it were our mother. It also provides us with nurturing. The Earth supplies us with a wealth of natural resources for our health and growth. Nonetheless, as we grow older, we become more egoistic and harm our environment. Environmental pollution has become a serious concern as a result of environmental degradation. Rising carbon pollution poses a risk of natural disasters. However, different nations throughout the world are responding to these tragedies in the most effective way possible. As a result, the concept of the eco-label came up. Eco labels are marks placed on product packaging or in e-catalogs that can help consumers and institutional purchasers quickly and easily identify those products that meet specific environmental performance criteria and are therefore deemed "environmentally preferable" (EPA, 2021). Accordingly, when compared to other similar items, eco-labelling seeks to identify and promote products that have a minimal environmental effect. It is a worldwide voluntary system of environmental performance certification and labelling that relies on the cooperation of three sectors. Such as industry, consumers, and the eco-labelling authority. It will help to achieve sustainable development in the country. Hence, the main objective of this investigation was to recognize consumer awareness and preference of eco-labels. The paper's conclusion investigates what factors can affect consumer awareness and preference of eco-labels in the Galle district.

2. Materials and Methods

This research was conducted exclusively for Galle district consumers to test their awareness and preference of the eco-label. Simple random sampling technique was instrumental in collecting data from the Galle district, which included 240 consumers. Both primary and secondary data was used in this investigation. Primary data were gathered from the selected sample over a three-week period in August 2021 via a Google form questionnaire. Various published and unpublished research, journals, books, newspapers, and internet sources were considered for secondary data. A quantitative research approach was used to conduct the research, and the data was analyzed using the binary logistic technique. Raw data were collected and organized in a Microsoft Excel spreadsheet before being fed into the SPSS software to identify the factors associated with the stated preference for eco-label. Data were examined using descriptive methods, and correlation coefficients and levels of significance were produced for future explanations.

3. Results and Discussion

According to the collected data, 55% of the respondents were male and the rest were female. Among those participants, 24 years could have been selected as the most responsive. Therefore, more than half of the respondents were single. Around 54% of respondents were studying, while 32% were working full-time. Nearly half of the respondents had a monthly household income of LKR 20 000-40 000.

Likewise, 86% of respondents were aware of the eco-label. Further, 66% became aware through social media platforms. 85% of respondents had used products with an eco-label at least once, but 27% had rarely used them. Under awareness factors, 20% of respondents had good knowledge and 7% of respondents didn't know about the benefits of the eco-label. More than half of those polled concerned about the environment.

A logistic regression analysis was performed using the awareness of eco-label as a dependent variable (yes=1, no=0). And independent variables were gender, occupation, and education, income, knowledge about environmental benefits, and age. When considering the model summary, the R square valued represents how much variation in the outcome was explained by the model. The explained variation of the dependent variable based on the model ranges from 24% to 43.5% with reference to the Cox & Snell R-square and Nagelkerke R-square values, respectively. According to the omnibus of model coefficients, the column was the probability of obtaining chi-type statistics when the zero assumption was considered true. In other words, this was the probability of obtaining these chi-type statistics (126.373) if the independent variables taken together did not have an effect on the dependent variables. In this case, the format was important because the p-value was less than 0.01 and would have been statistically significant for the overall model.

Accordingly, table 01 depicts the relationship between dependent and independent variables. The p-value could be used to measure the probability that an observed difference could have occurred just by random chance. Among the predictor's variables, monthly household income, knowledge about environmental benefits and education were statistically significant because their p-values were less than 0.01 and 0.05 respectively. However, gender, age, and occupation were not significant because their p-values were greater than of 0.05. Likewise, the sign of a regression coefficient ("+" = positive relationship, "-" = Negative relationship) indicates whether each independent variable and the dependent variable had a positive or negative relationship. Among the significant variables, education had a positive coefficient and others had a negative coefficient. Hence, the positive coefficient implies that the mean of the dependent variable continues to rise as the value of the independent variables increases. The Exp (B) shows that males are 1.873 times more likely than females to be aware of eco-labels ("yes" category). Accordingly, the following regression equation could be derived from the available data to predict the dependent variable from the independent variable.

$$\ln [p / (1-p)] = 7.191 (\text{constant}) + 0.493 \text{ **Education} - 1.805 \text{ *** Knowledge about environmental benefits} - 0.604 \text{ ***Income}$$

Table 01. Factors affecting to the consumer preference of eco-label

Factors	B	P-value
Gender (1)	.628	.216
Occupation	.085	.799
Education	.493	.042
Income	-.604	.001
Knowledge about environmental benefits	-1.805	.000
Age	.013	.575
Constant	7.191	.000

4. Conclusions

This study suggests that a person who cares about the environment is more likely to buy a green product if they are aware of its eco-friendly properties. In fact, in situations where people are required to evaluate the environmental characteristics of a product they intend to acquire, eco-labels will undoubtedly be the deciding factor in their decision. Expanding the sample size up to 1000 individuals by incorporating citizens all over the country will aid in obtaining a generalized outcome. Also, the researchers would like to emphasize the importance of taking the necessary actions by the bodies responsible for conducting public awareness programs about eco-labels.

5. References

- Doremus, J. (2020). How does eco-label competition affect environmental benefits? The case of Central Africa's forests. *Journal of Environmental Economics and Management*, 103, 102344. <https://doi.org/10.1016/j.jeem.2020.102344>
- EPA. (2021). Introduction to Eco labels and Standards for Greener Products. Retrieved from <https://www.epa.gov/greenerproducts/introduction-ecolabels-and-standards-greener-products>
- Gorton, M., Tocco, B., Yeh, C. H., & Hartmann, M. (2021). What determines consumers' use of eco-labels? Taking a close look at label trust. *Ecological Economics*, 189, 107173. <https://doi.org/10.1016/j.ecolecon.2021.107173>
- Hwang, J. A., Park, Y., & Kim, Y. (2016). Why do consumers respond to eco-labels? The case of Korea. *Springer Plus*, 5(1). <https://doi.org/10.1186/s40064-016-3550-1>
- Tang, E., Fryxell, G. E., & Chow, C. S. F. (2004). Visual and Verbal Communication in the Design of Eco-Label for Green Consumer Products. *Journal of International Consumer Marketing*, 16(4), 85–105. https://doi.org/10.1300/j046v16n04_05