Consumer Perceptions and Behavior in Jakarta towards the "Healthier Choice" Logo on Processed Food

Siti Maemunah [a,1,*], Tety Herawaty [a,2]

[a] The Indonesian Food and Drug Authority, Jl. Percetakan Negara No. 23, Central Jakarta 10560, Indonesia
[1]siti.maemunah@pom.go.id*; [2]tety.herawaty@pom.go.id
*corresponding author

ARTICLE INFO

Article history
Received: March 22, 2024

Revised: February 24, 2025

Accepted: February 25, 2025

DOI: https://doi.org/10.54384/eruditio.v5i2/170

ABSTRACT / ABSTRAK

Non-communicable diseases pose a major global mortality threat, with an estimated 15 million people aged 30–70 dying annually due to these conditions. One contributing factor is the excessive consumption of processed foods high in sugar and salt. Nutritional information on processed foods serves as an alternative to help consumers make dietary choices aligned with their nutritional needs. The "Healthier Choice" logo is a government initiative designed to protect consumers. However, research on the "Healthier Choice" logo has not been conducted in Indonesia. This study aimed to examine consumer perceptions and behaviors regarding the use of the "Healthier Choice" logo on processed foods. A survey was conducted with 63 subjects in Jakarta, predominantly aged 24–54 years (85.7%) and holding higher education degrees (84.1%). The results indicated that 54% of respondents had positive perceptions and 68.3% exhibited favorable behaviors toward the logo. Correlation analysis by residential area in Jakarta showed that only North Jakarta had a negative perception below 50% (33.3%), whereas 71.4% of respondents in East Jakarta reported positive perceptions. Regarding behavior, at least 50% of respondents in all Jakarta regions demonstrated good practices in response to the logo. Bivariate analysis by age revealed that most respondents aged 25–54 had positive perceptions (74.1%) and positive behaviors (59.3%) toward the logo. These findings suggest that consumers support the implementation of the "Healthier Choice" logo. Further research is needed to explore consumer perceptions and behaviors regarding the logo with more diverse respondent characteristics, including residential area and educational background.

Penyakit tidak menular menjadi ancaman kematian global, 15 juta orang usia 30–70 tahun akan meninggal setiap tahun akibat penyakit tidak menular. Penyakit ini disebabkan antara lain karena konsumsi pangan yang mengandung gula garam berlebih. Informasi nilai gizi pangan olahan menjadi alternatif membantu konsumen mengonsumsi pangan olahan sesuai kebutuhan gizi. Logo "pilihan lebih sehat" menjadi inovasi pemerintah dalam melindungi konsumen. Penelitian logo "pilihan lebih sehat" belum pernah dilakukan di Indonesia. Tujuan penelitian untuk mengetahui persepsi dan perilaku konsumen terhadap logo "pilihan lebih sehat" pangan olahan. Metode penelitian survei pada subjek 63 orang di Jakarta, mayoritas usia 24-54 tahun (85,7%) dan pendidikan perguruan tinggi (84,1%). Hasil penelitian menunjukan responden memiliki persepsi positif 54% dan perilaku baik 68,3% terhadap penerapan logo. Korelasi antara tempat tinggal di Jakarta dengan persepsi responden terhadap penerapan logo yaitu hanya Jakarta Utara yang memiliki persepsi negatif dibawah 50,0% (33,3%) sedangkan Jakarta Timur 71,4% responden berpersepsi positif. Korelasi antara tempat tinggal di Jakarta dengan perilaku responden terhadap penerapan logo yaitu ≥50,0% responden di semua wilayah Jakarta memilki perilaku yang baik terhadap penerapan logo. Hasil bivariat antara usia dengan persepsi responden, terlihat

sebagian besar responden usia 25–54 tahun memiliki persepsi baik (74,1%) terhadap penerapan logo. Analisis bivariat antara usia dengan perilaku responden terlihat responden usia 25–54 tahun berperilaku positif (59,3%). Hal ini menandakan ada dukungan konsumen terhadap penerapan pencantuman logo. Penelitian lebih lanjut diperlukan untuk mengetahui persepsi dan perilaku konsumen terhadap penerapan logo "pilihan lebih sehat" dengan karakteristik tempat tinggal serta pendidikan terakhir responden yang lebih beragam.

Keywords: healthier choices logo, processed food, non-communicable disease
Kata Kunci: *logo pilihan lebih sehat, pangan olahan, penyakit tidak menular*

1. Introduction

According to the 2018 WHO Report on Non-Communicable Diseases Country Profiles, non-communicable diseases (NCDs) have become one of the major health challenges of the 21st century and the leading cause of global deaths, accounting for 71% (41 million) of the 57 million deaths in 2016, based on WHO data. NCDs are responsible for deaths caused by cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes. An estimated 15 million people aged 30–70 years die annually due to NCDs. In Indonesia, in 2016, approximately 73% of NCDs contributed to mortality, with 35% due to cardiovascular diseases, 12% to cancer, 6% to chronic respiratory diseases, 6% to diabetes, and 15% to other NCDs. Risk factors for NCDs include insufficient physical activity, high salt/sodium intake, tobacco use, increased blood pressure, and obesity. Consuming foods high in salt contributes to the risk of hypertension, heart disease, and stroke, while obesity is often linked to an increased risk of hypertension and other NCDs (WHO, 2018). NCDs are multifactorial diseases influenced not only by individual lifestyle choices but also by environmental factors. Therefore, multisectoral NCD prevention efforts are essential, considering NCD risk factors extend beyond the health sector. Prevention can be achieved through policies considering their adverse impact on society (Ndubuisi, 2021).

One strategy to reduce NCD risk factors is promoting a healthy diet. To mitigate NCD risk factors, WHO recommends policies for a 30% reduction in salt/sodium intake, halting the rise of diabetes and obesity, and a 25% reduction in hypertension prevalence through the promotion of nutrition labeling (WHO, 2013).

In line with WHO's policy options, the Indonesian government has responded to WHO's recommendations by issuing regulations related to food labelings, such as Law No. 18 of 2012 on Food, Government Regulation No. 69 of 1999 on Food Labels and Advertising, and The Indonesian FDA Regulation No. 26 of 2021 on Nutrition Information on Processed Food Labels. The nutrition information policy allows consumers to understand and choose processed foods according to their nutritional needs. The Indonesian FDA's regulation on nutrition labeling mandates that all individuals producing and/or distributing processed foods must include nutrition information. The mandatory dietary components include sugar, salt, and fat. Additionally, The Indonesian FDA has introduced a nutrition labeling innovation to facilitate consumer understanding, including a monochrome-designed guide highlighting key nutritional information and the "Healthier Choice" logo. This innovation provides supplementary nutrition information to enhance consumer comprehension of food choices and does not replace standard nutrition information (Engelhardt *et al*., 2023).

The inclusion of the "Healthier Choice" logo is regulated under The Indonesian FDA Regulation No. 22 of 2019, which was later revised by The Indonesian FDA Regulation No.

26 of 2021 (The Indonesian FDA, 2019, 2021). This regulation stipulates those businesses, including nutrition information tables, may also feature the "Healthier Choice" logo. The inclusion of this logo is voluntary. Businesses must meet the nutritional requirements of their products following the criteria outlined in The Indonesian FDA's Regulation No. 26 of 2021. Currently, the regulation defines 20 nutritional profiles of processed foods, including instant noodles and ready-to-drink beverages, as eligible for the "Healthier Choice" logo if they meet the criteria. The "Healthier Choice" logo is illustrated in Figure 1. The logo includes the phrase "Compared to Similar Products When Consumed in Reasonable Amounts" at the bottom, outside the circle, signifying that products with this logo have a healthier composition than similar products when consumed in reasonable quantities (The Indonesian FDA, 2021).

Figure 1. Healthier Choice Logo
Source: The Indonesian FDA Regulation No. 26 of 2021 (The Indonesian FDA RI, 2021)

The inclusion of the "Healthier Choice" logo aims to assist consumers in making initial decisions about processed food selection based on their dietary needs. It is also expected to encourage food businesses to innovate processed food products that align with WHO's program to reduce NCD rates so that NCD prevention and reduction through nutrition labeling can ultimately be realized.

The "Healthier Choice" logo also serves as a standard communication tool for healthy food labeling to consumers. This logo indicates that the product meets the recommended nutritional profile criteria for sugar, salt, and fat for specific food categories (Muangsri *et al*., 2021). However, there are still limitations in public understanding of nutrition labels, especially in developing countries. Additionally, previous studies, such as Hapsari et al. (2019), have highlighted the influence of labels like the halal logo on consumer purchasing decisions. This study indicated that the visual symbol of the halal logo positively influences purchasing decisions and that awareness of the importance of halal labeling correlates positively with consumer purchase decisions.

Food labels, including specific logos on processed food products, can influence consumer choices and ultimately affect health. Several studies have reinforced this. A study by Fadlillah et al. (2015) on consumer awareness of food labels and food additives in Bogor found that 67% of respondents aged >24 read labels, and 73% were familiar with the term "food additives."

Perception theory states that perception is how individuals organize and interpret sensory impressions to give meaning to their environment. When consumers see or hear about a product/service through their senses, it leaves an impression on them, allowing them to perceive the product/service. This definition also states that perception arises and occurs through a process influenced by three factors: the characteristics of the perceiver, the object being perceived, and the environmental elements surrounding the perceiver (Putri, 2018).

In marketing management, when consumers form a negative impression of a product/service, they tend to reject it. Conversely, consumers are more likely to accept, consume, and use the product/service when they form a positive impression. Such actions constitute consumer behavior. Consumer behavior involves actions directly related to acquiring, consuming, and disposing of products and services, including the decisions leading up to these actions. Consumer behavior is influenced by cultural (culture, social class), social (family, roles, and status), personal (age, occupation, economic status), and psychological factors (beliefs, motivation, learning, attitudes, and perception) (Putri, 2018).

Despite the extensive research on nutrition labeling, studies on consumer perception and behavior toward the "Healthier Choice" logo in Indonesia remain limited. This study aims to identify consumer perceptions and behaviors regarding implementing the "Healthier Choice" logo on processed food products, particularly instant noodles and ready-to-drink beverages. The selection of these processed food products is based on literature considerations. The September 2017 National Socioeconomic Survey (SUSENAS) showed that instant noodles were among the 25 essential food commodities consumed nationwide. Meanwhile, in September 2017, the average consumption of instant noodles per capita in Indonesia for urban and rural areas was 308 grams and 269.6 grams, equivalent to 3 packs assuming that one pack of instant noodles weighs 80 grams (BPS-Statistics Indonesia, 2017). Additionally, Indonesia ranks as the second-highest consumer of instant noodles after China and Hong Kong, with 13.27 billion servings consumed in 2021 (World Instant Noodles Association, 2021). Regarding beverages, Indonesia ranks third in sugary drink consumption in Southeast Asia (Fanda *et al*., 2020).

This study examines consumer perceptions and behaviors toward implementing the "Healthier Choice" logo and consumer characteristics related to these perceptions and behaviors. The findings are expected to contribute to developing more effective nutrition labeling policies and increasing public awareness of healthy eating habits. Furthermore, the study can serve as an evaluation tool for implementing policies related to Indonesia's "Healthier Choice" logo.

2. Methodology

This study employs a quantitative research method using an online questionnaire distributed via Google Forms, a component of Google Docs for conducting online surveys. The study was conducted from July 10 to 12, 2022, targeting consumers residing in Jakarta. Jakarta was chosen as the study location because it is the capital city of Indonesia and one of the most densely populated provinces. According tos Statistics Indonesia (BPS), in 2021, the population of Jakarta reached 10,609,681 people (BPS DKI Jakarta, 2021). Several studies emphasize the government's role in increasing health awareness and protecting public health, particularly in urban areas. Urban environments are believed to positively and negatively impact health (Jiang *et al*., 2021; Pinchoff *et al*., 2020).

The consumption levels of instant noodles and sugary beverages in Jakarta show high per capita weekly consumption rates. In 2021, assuming an instant noodle weight of 80 grams per serving, the weekly per capita consumption in Jakarta's regions was as follows: South Jakarta 1,087 grams, East Jakarta 1,069 grams, Central Jakarta 1,211 grams, West Jakarta 1,250 grams, and North Jakarta 1,116 grams. The 2018 Basic Health Research (Riskesdas) survey indicated that 60.3% of Jakarta residents aged ≥3 years consumed instant/processed foods 1–6 times per week (Ministry of Health, 2018).

The percentage of Jakarta residents aged ≥3 years who consumed sugary beverages ≥1 time per day and 1–6 times per week was 61.72% and 28.58%, respectively Ministry of Health, 2018). Excessive sugar consumption from sugary beverages can cause health disorders, including the onset of NCDs. Research by Malik and Hu (2022) found a relationship between high sugary beverage consumption and increased body weight and cardiometabolic diseases. High consumption levels have also been linked to financial burdens. In Brazil, reducing sugary beverage consumption was projected to save medical costs associated with diseases caused by excessive sugar intake (Leal *et al*., 2022).

This study also considers respondents' income levels, as there is a correlation between income and health status. Higher-income individuals tend to allocate resources toward healthier lifestyles (Rakasiwi, 2021).

The questionnaire consists of demographic data, perception (6 statements), and behavior (7 statements) related to the implementation of the "Healthier Choice" logo. Respondents' perception and behavior toward the "Healthier Choice" logo are assessed using a Likert scale from 1 to 5. The mean value (23.57) is a cutoff point due to the normal data distribution (0.276) to determine respondents' perception scores. Perception scores are classified into positive perception (≥ mean) and negative perception (< mean). Bloom's cutoff point classification applied for behavior scores: good behavior (80–100%), moderate behavior (60–79%), and poor behavior (<60%) (Swarjana, 2022).

Chi-square analysis is used to examine correlations between respondent characteristics and perception, respondent characteristics and behavior, and perception and behavior. Univariate analysis is conducted to obtain frequency distributions of each variable. The chi-square test analyzes relationships between age, place of residence, gender, education level, occupation, average monthly income, primary household food purchaser, and perception and behavior. The study sample consists of respondents who meet the inclusion criteria: aged at least 15 years, residing in Jakarta, and having consumed instant noodles and ready-to-drink beverages. Respondents who have never consumed these products or do not reside in Jakarta are classified under exclusion criteria.

Data collection is conducted through the distribution of an online questionnaire to consumers. The questionnaire collects respondents' demographic characteristics, perceptions, and behavior. Quantitative data from the questionnaire is processed using SPSS 16.0 software. Additionally, researchers review related literature for supporting information.

3. Results and Discussion

3.1 Consumer Characteristics

Based on the questionnaire results, 83 respondents participated in the survey. However, after data cleaning, only 63 met the inclusion criteria. Twenty respondents were excluded due to unwillingness to complete the survey, residence outside Jakarta, or lack of consumption of instant noodles and ready-to-drink beverages.

The characteristics of respondents in this study include age, gender, marital status, place of residence, educational background, occupation, average monthly income, primary household food purchaser, and whether they are following a special diet. These characteristics are detailed in Table 1.

Table 1. Frequency Distribution of Respondents' Characteristics

No	Characteristics	Percentage (%)
1	Age	
	15-24 years	6
	25-54 years	85,7
	≥ 55 years	4,8
2	Gender	
	Male	20,6
	Female	79,4
3	Marital Status	
	Married	68,3
	Single	28,6
	Divorce	3,2
4	Residence	
	Central Jakarta	49,2
	East Jakarta	22,2
	South Jakarta	12,7
	West Jakarta	6,3
	North Jakarta	9,5
5	Education Level	
	Primary School	1,6
	Junior High School	4,8
	Senior High School	9,5
	Higher Education	84,1
6	Occupation	
	Student	1,6
	Housewifw	17,5
	Worker	41,3
	Merchant	6,3
	Civil Servant	31,7
	Retired	1,6
7	Average Monthly Income	
	a. < Rp.1.000.000	11,1
	b. Rp.1.000.000 - Rp.3.000.000	12,7
	c. Rp. 3.000.001 – Rp.6.000.000	33,3
	d. >Rp.6.000.000	42,9
8	Primary Household Food Purchaser	
	Yes	71,4
	No	28,6
9	Following a Special Diet	
	Yes	11,1
	No	87,3

3.2. Consumer Perception and Behavior Toward the "Healthier Choice" Logo

For the perception variable regarding the implementation of the "Healthier Choice" logo, 54% of respondents had a positive perception, while 46% had a negative perception. In terms of behavior, 68.3% of respondents exhibited good behavior, 30.2% exhibited moderate behavior, and 1.6% exhibited poor behavior toward the implementation of the "Healthier Choice" logo.

Table 2. Relationship Between Age and Consumer Perception and Behavior Toward the "Healthier Choice" Logo

Variabel	Age (years)		
	15 – 24	*25 – 54*	*≥55*
Perception			
Positive	33,3%	74,1%	33,3%
Moderate	50,0%	25,9%	66,7%
Poor	16,7%	0%	0%
Behavior			
Positive	16,7%	59,3%	33,3%
Negative	83,3%	40,7%	66,7%

Table 2 shows the chi-square results for the correlation between age and perception and age and respondent behavior regarding the application of the "healthier choice" logo.

The frequency distribution analysis shows variations in perception and behavior among different age groups regarding the "Healthier Choice" logo. Among respondents aged 15–24, 33.3% had a positive perception, 50.0% had a moderate perception, and 16.7% had a poor perception. In the 25–54 age group, 74.1% had a positive perception, 25.9% had a moderate perception, and none had a poor perception. In the ≥55 age group, 33.3% had a positive perception, and 66.7% had a moderate perception, with no respondents having a poor perception.

For behavior, 16.7% of respondents aged 15–24 exhibited positive behavior, while 83.3% showed negative behavior. Among respondents aged 25–54, 59.3% exhibited positive behavior, while 40.7% exhibited negative behavior. In the ≥55 age group, 33.3% exhibited positive behavior, while 66.7% exhibited negative behavior.

These results indicate that the 25–54 age group demonstrates the highest level of positive perception and behavior toward the "Healthier Choice" logo compared to the other age groups. This finding suggests that the working-age population is more responsive to nutritional information provided through the logo than younger (15–24 years) and older (≥55 years) groups. This aligns with the study by Sulong et al. (2023), which found that younger consumers are less interested in labels and tend to purchase products without considering or understanding the nutritional information provided. These differences in perceptions and behavior between age groups indicate a need for tailored communication and education strategies. Education based on digital technology, such as social media and interactive applications, can be an effective approach to increase understanding and awareness of the young age group regarding the importance of choosing healthy food products. This approach can also be integrated with promoting healthy lifestyles that are relevant to the preferences and habits of the younger generation.

3.3. Relationship Between Income and Consumer Perception and Behavior Toward the "Healthier Choice" Logo

Table 3 presents the correlation between respondents' average monthly income and perception of the "Healthier Choice" logo implementation.

Table 3. Distribution of Respondents Based on Average Monthly Income and Perception Toward the "Healthier Choice" Logo

Income	Perception (%)	
	Positive	Negative
<Rp. 1.000.000	57,1	42,9
Rp. 1.000.000 – Rp. 3.000.000	50,0	50,0
Rp. 3.000.001 – Rp. 6.000.000	57,1	42,9
>Rp. 6.000.000	51,9	48,1

The analysis indicates variations in positive and negative perceptions of the "Healthier Choice" logo based on respondents' income levels. In the income group of < Rp. 1,000,000, the majority (57.1%) had a positive perception, while 42.9% had a negative perception. A similar trend was observed in the Rp. 3,000,001 – Rp. 6,000,000 income group, where 57.1% had a positive perception. Meanwhile, in the Rp. 1,000,000 – Rp. 3,000,000 and > Rp. 6,000,000 income groups, the perception distribution was relatively balanced. For the income group Rp. 1,000,000 – Rp. 3,000,000 positive and negative perceptions were recorded at 50.0% each. Meanwhile, in the income group > Rp. 6,000,000, positive perceptions are slightly higher (51.9%) than negative perceptions (48.1%). This finding aligns with Kumarga et al. (2024), which suggests that income level does not significantly influence consumer perception of the "Healthier Choice" logo.

Table 4 shows the correlation between respondents' average monthly income and behavior toward the "Healthier Choice" logo.

Table 4. Distribution of Respondents Based on Average Monthly Income and Behavior Toward the "Healthier Choice" Logo

Income	Behavior (%)		
	Good	Moderate	Poor
<Rp. 1.000.000	71,4	28,6	0
Rp. 1.000.000 – Rp. 3.000.000	75,0	25,0	0
Rp. 3.000.001 – Rp. 6.000.000	76,2	23,8	0
>Rp. 6.000.000	59,3	37,0	1

Bivariate analysis shows that respondents with incomes ranging from < Rp. 1,000,000 to > Rp. 6,000,000 positively perceived the "Healthier Choice" logo, with at least 50% in each category. This study is consistent with the *Science for Policy report by the Joint Research Centre* (JRC), which states that higher income levels are generally correlated with greater interest in front-of-pack nutrition labeling (FOPNL) (European Commission, 2022).

3.4. Correlation Between Perception and Behavior Toward the "Healthier Choice" Logo

Table 5 shows the chi-square analysis results for the correlation between respondents' perceptions and behaviors toward the "Healthier Choice" logo.

Table 5. Distribution of Respondents Based on Perception and Behavior Toward the "Healthier Choice" Logo

Perception	Behavior (%)

	Good	*Cukup*	Good
Positive	88,2	11,81	0
Negative	44,8	51,7	3,4

The bivariate analysis between consumer perception and behavior toward the "Healthier Choice" logo shows a strong correlation, with 88.2% of respondents who had a positive perception also exhibiting good behavior. This indicates that consumers who perceive the logo positively are more likely to accept and choose processed food products displaying the "Healthier Choice" logo. These findings align with Puspita et al. (2024), which state that nutrition label perception influences communication behavior in disseminating nutrition information and promoting healthy eating habits.

3.5. Correlation Between Residence in Jakarta and Perception Toward the "Healthier Choice" Logo

Table 6 shows the correlation between respondents' residence in Jakarta and their perception of the "Healthier Choice" logo.

Tabel 6. Distribution of Respondents based on residence in Jakarta and Respondents' perceptions of the application of the "healthier choice" Logo

Residence	Perception (%)	
	Positive	Negative
Central Jakarta	51,6	48,4
East Jakarta	71,4	28,6
South Jakarta	50,0	50,0
West Jakarta	50,0	50,0
North Jakarta	33,3	66,7

The results indicate that only North Jakarta had a negative perception rate exceeding 50.0% (66.7%), while East Jakarta had the highest positive perception rate (71.4%). Although research on the "Healthier Choice" logo in different Jakarta regions is limited, a study by Retno & Fatmah (2019) found increased nutrition label comprehension among respondents in East Jakarta.

3.6. Correlation Between Place of Residence in Jakarta and Behavior Toward the "Healthier Choice" Logo

Table 7 presents the correlation between respondents' place of residence in Jakarta and their behavior toward the "Healthier Choice" logo.

The findings indicate that ≥50.0% of respondents in all Jakarta regions exhibited good behavior toward the "Healthier Choice" logo. This suggests a positive consumer response to the implementation of the logo on processed food products. This aligns with the study by Fatimah & Ruhaya (2019), where 80% of respondents supported the implementation of the Healthier Choice Logo (HCL) as it helps consumers choose food products. Similarly, Feunekes et al. (2008) found that the Healthier Choice Tick may effectively assist consumers in selecting food products. Hawley et al. (2013) noted that the logo did not increase

consumption of "less healthy" products, indicating that consumers can differentiate between healthy and unhealthy products (Vargas-Meza *et al*., 2019).

Table 7. Distribution of Respondents Based on Residence in Jakarta and Behavior Toward the "Healthier Choice" Logo

Residence	Behavior (%)		
	Good	***Moderate***	***Poor***
Central Jakarta	74,2	22,6	3,2
East Jakarta	71,4	28,6	0
South Jakarta	62,5	37,5	0
West Jakarta	50,0	50,0	0
North Jakarta	50,0	50,0	0

The "Healthier Choice" logo aims to facilitate consumer identification of healthier food options within the same food category and encourage manufacturers to reformulate products to meet the criteria. In addition to consumers, food manufacturers in Malaysia have also shown higher acceptance of the "Healthier Choice" logo. The logo has encouraged food manufacturers to reformulate their products (Nguyen Ngoc *et al*., 2023; Sulong *et al*., 2023).

This study has some limitations, including the focus on respondents residing in Jakarta and most respondents have a higher education background. Further research is needed with a broader geographic scope and more diverse educational backgrounds.

4. Conclusion

This study demonstrates that 54% of consumers, with the majority having higher education, have a positive perception of the implementation of the "Healthier Choice" logo on processed foods. The study also reveals that 68.3% of respondents behave well toward the logo. The correlation between the place of residence in Jakarta and respondents' behavior toward the logo shows that ≥50.0% of respondents in all Jakarta regions display good behavior regarding the "Healthier Choice" logo. This indicates a positive response and consumer support for the logo's implementation. The study also finds a correlation between consumer perception and behavior toward the "Healthier Choice" logo, showing that consumers with a positive perception are likely to adopt positive behavior toward products displaying the logo. Further research with a wider geographical scope and more diverse respondent characteristics is recommended to provide greater benefits to consumers and contribute to more effective nutrition labeling policies.

References

BPS-Statistics Indonesia. (2017). Expenditure for Consumption of Indonesian Population by Province. BPS-Statistics Indonesia (Vol. 7, Issue 1). https://www.bps.go.id/publication/download.html?nrbvfeve=YTc1ODBjM2FkYzQ2Y2Y5MjI3OGVjZTU4&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2F0aW9uLzIwMTgvMDYvMTEvYTc1ODBjM2FkYzQ2Y2Y5MjI3OGVjZTU4L3BlbmdlbHVhcmFuLXVudHVrLWtvbnN1bXNpLXBlbmR1ZHVrLWluZG9uZXNpYS1wZXIt

The Indonesian FDA. (2019). Indonesian Food and Drug Administration Regulation

Number 22 of 2019 on Nutrition Information on Processed Food Labels. *The Indonesian FDA*, *53*, 1689–1699.

The Indonesian FDA. (2021). Indonesian FDA Regulation Number 26 of 2021 on Nutrition Information on Processed Food Labels. *The Indonesian FDA* (pp. 1–16).

BPS-Statistics Indonesia Jakarta Province. (2021). *Population of Jakarta Province by Age Group and Gender 2019-2021*. https://jakarta.bps.go.id/indicator/12/111/1/jumlah-penduduk-provinsi-dki-jakarta-menurut-kelompok-umur-dan-jenis-kelamin.html

Engelhardt, K., Nishida, C., Reid, J., & Kelly, B. (2023). Nutrition labelling for NCD prevention and control. *Noncommunicable Diseases: A Compendium*, 179–185. https://doi.org/10.4324/9781003306689-27

European Commission. (2022). JRC Science for Policy Report: Front-of-pack nutrition labelling schemes: an update of the evidence. *European Commission*. https://doi.org/10.2760/932354

Fadlillah, H. N., Nuraida, L., Purnomo, E. H., Studi, P., Profesional, M., Pangan, T., Pascasarjana, S., Pertanian Bogor, I., Ilmu, D., & Pertanian, T. (2015). Kepedulian Konsumen terhadap Label dan Informasi Bahan Tambahan Pangan (BTP) pada Label Kemasan Pangan di Kota Bogor Consumer Awareness on Label of Food Packaging and Information of Food Additives in Bogor City. ©*JMP2015 Jurnal Mutu Pangan*, *2*(1), 119–126.

Fanda, R. B., Salim, A., Muhartini, T., Utomo, K. P., Dewi, S. L., & Samra, C. A. (2020). Policy Brief Mengatasi Tingginya Konsumsi Minuman Berpemanis di Indonesia. *Pusat Kebijakan dan Manajeman Kesehatan*.

Fatimah S, Ruhaya S, Z. M. (2019). Consumer Attitude Regarding Food Labelling and Perception of Healthier Choice Logo (HCL). *Biomedical Journal of Scientific & Technical Research*, *17*(1), 12459–12464. https://doi.org/10.26717/bjstr.2019.17.002936

Feunekes, G. I. J., Gortemaker, I. A., Willems, A. A., Lion, R., & van den Kommer, M. (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. https://doi.org/10.1016/J.APPET.2007.05.009

Hapsari, D. R., Kusumaningrum, I., Aminah, S., & Puspitasari, S. D. (2019). Studi Kasus Pengaruh Logo Halal dan Kesadaran Halal terhadap Keputusan Pembelian Bakso Sapi di Ciawi - Bogor. *Jurnal Agroindustri Halal*, *5*(2), 196–203. https://doi.org/10.30997/jah.v5i2.1965

Hawley, K. L., Roberto, C. A., Bragg, M. A., Liu, P. J., Schwartz, M. B., & Brownell, K. D. (2013). The science on front-of-package food labels. *Public Health Nutrition*, *16*(3), 430–439. https://doi.org/10.1017/S1368980012000754

Jiang, T. B., Deng, Z. W., Zhi, Y. P., Cheng, H., & Gao, Q. (2021). The Effect of Urbanization on Population Health: Evidence From China. *Frontiers in Public Health*, *9*, 706982. https://doi.org/10.3389/FPUBH.2021.706982/BIBTEX

Kementerian Kesehatan. (2018). Laporan Nasional RISKESDAS 2018. In *Kementerian Kesehatan RI* (Vol. 1, Issue 1). https://www.kemkes.go.id/article/view/19093000001/penyakit-jantung-penyebab-kematian-terbanyak-ke-2-di-indonesia.html

Kumarga, M. F., Muhandri, T., & Hasanah, U. (2024). Effectiveness, Consumer's Perception, and Behavior Towards Healthier Choice Logo on Indonesian Instant

Noodles in Jakarta. *Jurnal Gizi Dan Pangan*, *19*(2), 117–126. https://doi.org/10.25182/jgp.2024.19.2.117-126

Leal, J. S. V., Fogal, A. S., Meireles, A. L., Cardoso, L. de O., Machado, Í. E., & Menezes, M. C. de. (2022). Health economic impacts associated with the consumption of sugar-sweetened beverages in Brazil. *Frontiers in Nutrition*, *9*(December). https://doi.org/10.3389/fnut.2022.1088051

Malik, V. S., & Hu, F. B. (2022). The role of sugar-sweetened beverages in the global epidemics of obesity and chronic diseases. *Nature Reviews Endocrinology*, *18*(4), 205–218. https://doi.org/10.1038/s41574-021-00627-6

Muangsri, K., Tokaew, W., Sridee, S., & Chaiyasit, K. (2021). Health communication to reduce sugar consumption in Thailand. *Functional Foods in Health and Disease*, *11*(10), 484–498. https://doi.org/10.31989/ffhd.v11i10.833

Ndubuisi, N. E. (2021). Noncommunicable Diseases Prevention In Low- and Middle-Income Countries: An Overview of Health in All Policies (HiAP). *Inquiry (United States)*, *58*. https://doi.org/10.1177/0046958020927885

Nguyen Ngoc, H., Photi, J., Tangsuphoom, N., & Kriengsinyos, W. (2023). Uptake of Front-of-Package Nutrition Labeling Scheme after 5 Years of Adoption in Thailand: An Analysis of New Launched Pre-Packaged Food and Beverages Products. *Nutrients*, *15*(14). https://doi.org/10.3390/nu15143116

Pinchoff, J., Mills, C. W., & Balk, D. (2020). Urbanization and health: The effects of the built environment on chronic disease risk factors among women in Tanzania. *PLOS ONE*, *15*(11), e0241810. https://doi.org/10.1371/JOURNAL.PONE.0241810

Dina Puspita Sari Daulay, Lismawarni Lismawarni, & Rita Hartati. (2024). The Impact of Food Label Perception and Nutrition Literacy on Communication Behavior : A Case Study of Medan State University Students. *Fonologi : Jurnal Ilmuan Bahasa Dan Sastra Inggris*, *2*(4), 271–286. https://doi.org/10.61132/fonologi.v2i4.1237,

Rakasiwi, L. S. (2021). Pengaruh Faktor Demografi dan Sosial Ekonomi terhadap Status Kesehatan Individu di Indonesia. *Kajian Ekonomi Dan Keuangan*, *5*(2), 146–157. https://doi.org/10.31685/kek.v5i2.1008

Retno, D., & Fatmah. (2019). The impact of front-of-package traffic light (FoPTL) in the senior high school students' nutrition labels comprehension. *Current Research in Nutrition and Food Science*, *7*(3), 918–926. https://doi.org/10.12944/CRNFSJ.7.3.30

Sulong, F., Ibrahim, N. S., Norrahim, N. M., Aziz, L. H. A., Zawawi, N. I. A. A., & Nor, N. M. (2023). Acceptance and effectiveness of the Healthier Choice Logo (HCL) among food industries in Malaysia. *Malaysian Journal of Nutrition*, *29*(2), 355–366. https://doi.org/10.31246/mjn-2022-0137.

Swarjana, I. K. (2022). *Konsep Pengetahuan, Sikap, Perilaku, Persepsi, Sterss, Kecemasan, Nyeri, Dukungan Sosial, Kepatuhan, Motivasi, Kepuasan, Pandemi Covid-19, Akses Layanan Kesehatan*.

Vargas-Meza, J., Jáuregui, A., Pacheco-Miranda, S., Contreras-Manzano, A., & Barquera, S. (2019). Front-of-pack nutritional labels: Understanding by low- And middle-income Mexican consumers. *PLoS ONE*, *14*(11), 1–16. https://doi.org/10.1371/journal.pone.0225268

WHO. (2013). Global action plan for the prevention and control of noncommunicable diseases 2013-2020. *WHO*, *7*(2). https://doi.org/10.3390/soc7020010

WHO. (2018). Noncommunicable Diseases Country Profiles 2018. *WHO*.

https://doi.org/10.1002/9781119097136.part5
World Instant Noodles Association. (2021). *Global Demand for Instant Noodles*. World Instant Noodles Association. https://instantnoodles.org/en/noodles/demand/ranking/