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Factors Influencing Consumer Purchasing Decisions for Fruit Drinks: The Role of Nutritional Claims in Gampaha District, Sri Lanka

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Abstract: Nutritional claims refer to statements or labels on food and beverage products that highlight their nutritional content, health benefits, or ingredient-related attributes. These claims are commonly used by manufacturers to influence consumer purchasing decisions by emphasizing a product's perceived healthiness and nutritional value. This study aimed to examine the impact of nutritional claims on consumers' purchasing decisions regarding fruit drinks in Gampaha District. Primary data were collected from 150 consumers through a market survey using a pre-tested questionnaire conducted from June to August 2023. A convenience sampling method was employed to select the consumers. Multiple regression analysis was used, with consumer purchasing decisions as the dependent variable, while independent variables included consumer preferences, purchase intentions, nutritional claims, packaging design, and labeling information. Hypotheses were formulated based on a conceptual framework derived from existing literature on nutritional claims. Data were analyzed using descriptive statistics and multiple regression analysis. The results revealed that consumer perception of healthiness has the strongest positive impact on purchasing decisions, as indicated by the highest coefficient value. All structural model path coefficients were positive and statistically significant. Additionally, consumer preferences played a crucial role, while product labeling and nutritional claims further influenced purchasing behavior. Future studies may extend this research by considering a longer study period, different market sectors, and alternative statistical methods to obtain more comprehensive insights.

Keywords: Consumer preference; consumer purchasing decisions; nutritional claims; Sri Lanka

INTRODUCTION

Nutrition claims on food labels highlight specific nutrients, such as "low-fat" or "high in fibre", and influence consumer perceptions of a product's healthiness. In the beverage industry, particularly with fruit drinks, these claims are used to appeal to health-conscious consumers. With increasing health awareness, consumers prioritize products that align with their wellness goals. As a result, fruit drinks have gained popularity as a perceived healthier alternative to sugary soft drinks. Nutritional claims, such as "rich in vitamins" or "low in sugar", are employed to influence purchasing decisions. Research into how these claims affect consumer choices, particularly in regions like Gampaha District, is crucial for understanding preferences and guiding marketing strategies for beverage manufacturers. This study provides a valuable insights into how nutrition claims influence purchasing behavior in this context, contributing to better-targeted products and campaigns. The research gap in examining the impact of nutritional claims on consumers' purchasing decisions for fruit drinks in Gampaha District, Sri Lanka, lies in the lack of

empirical studies addressing the region's unique market dynamics. While global studies, such as those by Brown and Williams (2017) and Smith et al. (2020), highlight the influence of nutrition claims like "low in sugar" or "high in vitamin C", their applicability to Gampaha's cultural factors and consumer preferences remains underexplored. Rising health concerns, as noted by the Gampaha District Health Department (2020), and traditional beverage consumption patterns suggest a need to investigate how local consumers perceive and respond to nutrition claims. Additionally, the trust and understanding of labelling regulations by the Sri Lanka Consumer Affairs Authority (2019) warrant further study. Addressing these gaps will enrich the literature on consumer behavior and help businesses create targeted marketing strategies for this region.

The broad objective of this study was to examine the impact of nutritional claims on consumer purchasing decisions regarding fruit drinks in Gampaha District, Sri Lanka. Specifically, the study aimed to identify the presence of nutritional claims and their influence on consumer purchasing decisions, analyze how packaging design and labeling information interact with these claims to shape consumer behavior, assess the effect of consumer preferences for nutritional claims on their purchasing choices, and evaluate how consumer perceptions of healthiness influence their purchasing decisions in this context.

MATERIAL AND METHOD

The quantitative research approach and a survey with an observation strategy were used for this research. Mainly Likert scale questions were used to develop the structured questionnaire based on the previous study authors adopted as research strategies. The study employed a mixed-methods research design to gain a comprehensive understanding of the impact of nutrition claims on consumer purchasing decisions related to fruit drinks. The Gampaha District was selected for this study due to its diverse consumer demographics, urban and semi-urban market structure, and the growing demand for fruit drinks. The district represents a mix of different income groups and purchasing behaviors, making it an ideal location to analyze the influence of nutritional claims and other factors on consumer purchasing decisions. Additionally, the rising health awareness in the region, as highlighted in the Gampaha District Health Department report (2020), provides a relevant context for studying consumer preferences regarding fruit drink choices. This study focuses on commercially available fruit drinks in the Gampaha District, including packaged juices, fruit nectars, and flavoured fruit beverages. The selected products were chosen based on their prevalence in local supermarkets, convenience stores, and grocery outlets. Specific brands and product types were considered based on their use of nutritional claims on labels. A structured survey will be administered to a representative sample of consumers in Gampaha District. The survey will include questions about demographics, purchasing behavior, and the influence of nutrition claims on their fruit drink choices. For this study, a simple random sampling method was employed to ensure representation across different demographic and socio-economic groups within the Gampaha District. To gather data from consumers in Gampaha District making purchasing decisions related to fruit drinks. The sampling process involved systematically selecting participants from various areas within the district to ensure a representative sample. The sample size consisted of 150 participants, and a pre-tested questionnaire was administered to collect relevant data. Quantitative data was analyzed using statistical techniques, such as regression analysis, to determine the strength of relationships between nutrition claims and purchasing decisions.

This study aimed to investigate the presence of nutrition claims on fruit drink packaging and their impact on consumer purchasing decisions. The Elaboration Likelihood Model (ELM**)** is the theoretical framework that explains how consumers process and respond to information presented on packaging (Ajzen, 1991). According to the ELM, consumers can be influenced either through a central route, where they critically

evaluate the nutritional information and health benefits or through a peripheral route, where they make decisions based on simpler cues, such as packaging design or brand familiarity (Figure 1).

RESULTS AND DISCUSSION

Demographic Information

This study investigates the impact of nutritional claims on consumer purchasing decisions related to fruit drinks in Gampaha District, Sri Lanka. The sample consists of 150 respondents, with the majority (57.56%) aged between 30 and 40 years. Regarding occupation, 18.9% were unemployed, 21.1% were employees, 30.2% were middle managers, and 19.2% were businesspersons. Income levels varied, with 18.9% earning below 50,000, 21.1% earning between 50,000 – 100,000, 30.2% earning between 100,000 – 150,000, and 19.2% earning above 150,000.

Descriptive statistics indicate that the median, range, variance, mean, and standard deviation for nutritional claims (NC), design and labeling information (DF), consumer perception (CP), and consumer health perception (CH) vary, with CP showing the highest mean value (3.2086) and CH the highest variance (0.42674).

Hypothesis testing revealed that nutritional claims explain 63.70% of the variation in consumer buying behavior, with a significant impact at the 5% level ($B = 0.820$, $p < 0.05$, $F = 638.851$). Packaging design and labeling information explain 65.70% of the variation in purchasing decisions ($B = 0.964$, $p < 0.05$, $F = 458.149$). Consumer perception of healthiness accounts for 64.20% of purchasing decisions ($B = 0.830$, $p < 0.05$, $F = 680.085$), while consumer preferences similarly explain 64.20% of the variation in purchasing decisions ($B = 0.830$, $p < 0.05$, $F = 680.085$).

Regression Analysis

According to the Table of model summary (Table 5), the selected independent variables explain

Table 1. Age Composition of the respondents

Age Category	Frequency	Percent
20 – Below 30 years	06	03%
30 – Below 40 years	87	57.56%
40 – Below 60 years	41	27.3%
60 years and above	20	15.11%
Total	150	100.0

Source: Author.

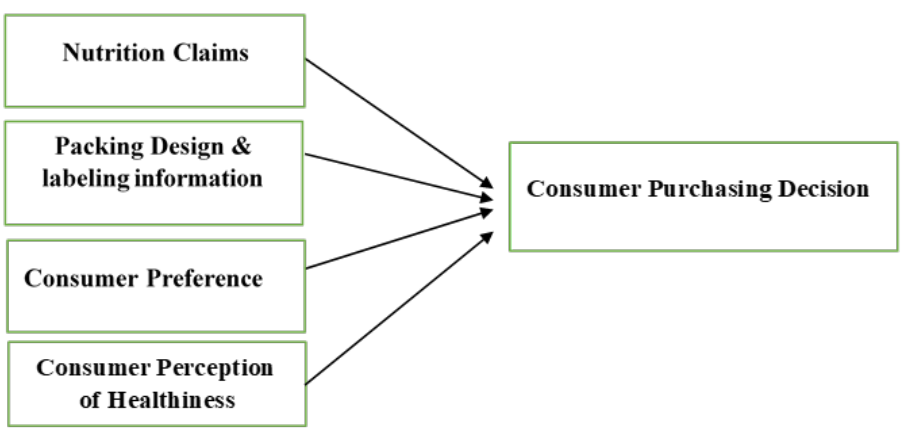

Fig. 1. Conceptual Framework – labelling
Source: Author.

Table 2. Occupation of the respondents

Qualification	Frequency	Percent
Unemployment	28	18.0
Student	29	21.0
Middle Management	46	30.0
Business Person	29	19.0
Others	18	12.0
Total	150	100.0

Source: Author.

Table 3. Income of the respondents

Income	Frequency	Percent
Below 50,000	25	18.0
50,000 – 100,000	32	21.0
100,000 – 150,000	46	30.0
Above 150,000	44	31.0
Total	150	100.0

Source: Author.

Table 4. Descriptive Analysis

Report				
	NC	PL	CP	CH
Minimum	0.69	0.71	0.63	0.75
Maximum	3.623	3.6114	3.178	3.85
Median	3.0000	3.0000	3.3333	3.1000
Range	2.69	2.40	2.33	3.00
Variance	0.398	0.251	0.398	0.427
Mean	3.1673	3.1016	3.2077	3.5167
Std. Deviation	3.63775	0.50107	0.63058	0.65325
N	150	150	150	150

Source: Author.

the total variation of the consumer purchasing decisions by 69.70% which results in overall significance due to the P-value of ANOVA Table (0.000) being less than 0.05. As per the results most positively impacted variables are CH and CP due to having the highest B value (Regression Coefficient) at a 05.00% level of significance. Further; the Durbin-Watson statistic is 1.947, which is approximately equal to the +02. Therefore, there is no autocorrelation between variables. Additionally, the Tolerance of each variable is >0.10 and VIF < 10. These results indicate that there is no multicollinearity in the independent variable.

For the study, the forecast model can be represented as below (Equation 1),

Equation 01: Estimated Forecast Model

$$\text{Consumer Purchasing Decisions} = 0.072 + 0.312 \times X_1 + 0.438 \times X_2 + 0.702 \times X_3 + 0.555 \times \varepsilon$$

The research examined the influence of four predictors – Nutrition Claims (NC), Product Labeling (PL), Consumer Preference (CP), and Consumer Perception of Healthiness (CH) – on consumer purchasing decisions (CB) in the Gampaha District. The model demonstrated substantial explanatory power with an R-squared value of 0.697, indicating that 69.7% of the variance in consumer buying behavior can be explained by these predictors.

Consumer Perception of Healthiness (CH) predictor exhibited the highest positive standardized coefficient (T = 0.603), indicating it is the most influential factor in shaping consumer purchasing decisions. Consumer Preferences

Table 5. Model Summary, ANOVA Table

Model Summary [b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin - Watson			
1	.829[a]	.697	.683	.36776	1.947			
ANOVA [a]								
Model	Sum of Squares		Df			Mean Square	F	Sig.
1	Regression		111.734	5	22.347	165.228	.000[b]	
	Residual		50.853	143	.135			
	Total		162.588	146				
a. Dependent Variable: Consumers' purchasing decisions								
b. Predictors: (Constant), NC , PL, CP, CH								

Source: Author.

Table 6. Regression results

Coefficients a								
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	.072	.123		.518	.048		
	NC	.312	.084	.214	2.648	.008	.127	2.564 7.886
	PL	.438	.062	.271	5.714	.000	.370	2.701
	CP	.702	.117	.504	4.465	.000	.653	1.310 2.114
	CH	.555	.177	.603	3.556	.001	.244	
a. Dependent Variable: Consumer purchasing decisions								

Source: Author.

also showed a strong influence with a T value of 0.504, highlighting its substantial impact on consumer buying behavior. Product Labeling predictor also played a substantial role with a T value of 0.271, emphasizing the importance of clear and informative product labeling in influencing consumer decisions. Nutrition Claims (NC) although having a smaller influence, NC still showed a statistically significant positive effect on consumer behavior with a T value of 0.214. The ANOVA results supported the robustness of the model, with a significant F-statistic ($F = 165.228$, $p < 0.001$), confirming the overall fit and the collective influence of the predictors on consumer buying behavior. The Durbin-Watson statistic of 1.947 indicated no significant autocorrelation in the residuals, supporting the independence of observations in the dataset.

Additionally, collinearity diagnostics revealed no serious multicollinearity issues among the predictors. The tolerance values and condition indices indicated that the predictors are relatively independent of each other, further confirming the model's reliability.

Based on the research findings, it is clear that consumer preferences play a crucial role in the purchasing decisions of consumers. Marketers should prioritize understanding and catering to these preferences by offering products that align with consumer tastes and needs. Conducting regular market research to track changing preferences can help companies stay ahead of trends. Additionally, offering a range of flavors, packaging options, or customizable products could cater to diverse consumer segments, enhancing customer satisfaction and loyalty (Malhotra, 2017).

The significant influence of consumer perception of healthiness suggests that consumers are increasingly health-conscious. Marketers should capitalize on this by emphasizing the health benefits of their products (Hair et al., 2018). This could involve reformulating products to include healthier ingredients or reducing sugar content. Marketing campaigns should highlight these health benefits, using clear and transparent messaging that resonates with the health concerns of consumers.

A significant factor in influencing consumers' decisions in product labeling. Labels on products should be easy to read, informative, and clear. Including comprehensive nutritional information, health claims, and certifications can increase the attraction of a product and build trust. In addition to adhering to legal requirements, labels should be visually appealing and efficiently communicate essential details. Even though their impact was less, nutrition claims were still very important, so businesses should keep using them wisely. Even with health-conscious consumers, highlighting important nutritional benefits like "low sugar" or "high in vitamins" can make a difference. However, since false claims can cause customers to lose faith in a company, it is imperative that these statements are accurate and backed up by data.

In summary, the findings highlight that consumer preference and concerns about health significantly influence buying decisions, along with product labeling and, to a somewhat lesser extent, nutrition claims. These insights are valuable for marketers and policymakers in understanding the key drivers of consumer purchasing behavior in the context of fruit drinks, ultimately aiding in the development of more effective marketing strategies and policies to meet consumer demands and promote healthier choices. The most successful marketing approach will probably be one that takes into consideration consumer preferences, emphasizes health benefits, and provides transparent and informative product labelling. Policymakers should encourage healthier consumer choices by supporting public health campaigns and recommending for clearer labeling regulations.

CONCLUSION

The findings highlight that consumer preference and health concerns significantly influence purchasing decisions, along with product labeling and, to a lesser extent, nutrition claims. These insights help marketers and policymakers develop strategies to meet consumer demands and promote healthier choices.

Marketers should prioritize understanding consumer preferences by offering products that align with their tastes and needs. Regular market research can help track changing trends and diversifying product options can enhance customer satisfaction and loyalty.

The strong influence of health perception suggests that consumers are increasingly health-conscious. Marketers should emphasize the health benefits of their products through reformulation, clearer labeling, and transparent messaging to resonate with consumer concerns.

Although nutrition claims had a smaller influence, they still play a role in shaping consumer choices. Properly highlighting nutritional benefits, such as reduced sugar or added vitamins, can enhance a product's appeal. Marketers should use credible claims supported by scientific evidence to avoid misleading consumers and maintain brand credibility. Clear and transparent communication of nutrition claims can reinforce positive perceptions and contribute to healthier consumer choices.

Overall, businesses should adopt a holistic approach by integrating consumer preferences, health perceptions, product labeling, and nutrition claims into their marketing strategies. A combination of targeted product development, effective labeling, and strategic communication can drive consumer engagement and loyalty. By aligning with consumer expectations, companies can strengthen their market position and contribute to healthier purchasing behaviors.

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