



## Healthy Ice Cream as an Alternative to Conventional Counterpart: A Conjoint Analysis of Consumer Preference



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### Abstract

Ice cream is a delicious and nutritious dairy product preferred by consumers in all age categories. However, the high sugar and fat content of ice cream has raised concern about its healthiness. Current health-conscious consumers seek healthy foods without compromising taste. A study was conducted to investigate the consumer preference for healthy ice cream using conjoint methodology. A Convenience sampling technique was used to select 300 consumers residing in Southern Province of Sri Lanka. They were asked to rank 16 hypothetical choice cards with appropriate ice cream images and relevant information to evaluate healthy ice cream profiles obtained using the orthogonal design of SPSS software. According to the conjoint analysis, the sugar content of ice cream was identified as the most important factor for the overall consumers, followed by flavour, fat content, price and quality certification. The ideal healthy ice cream profile for the overall consumers was identified as having chocolate flavour, being fat-free with no added sugar, having SLS certification and being priced at Rs. 480/L. Cluster analysis revealed that there were 2 clusters with different ideal product profiles;

cluster 1: chocolate flavoured, low fat with no added sugar, having ISO certification and priced at Rs. 520/L and cluster 2: vanilla flavoured, fat-free with no added sugar, having SLS certification and priced at Rs. 480/L. Consumers in cluster 1 ranked sugar content in ice cream as the most important factor of concern, followed by fat content, flavour, price and quality certification, indicating their high health consciousness, while consumers in cluster 2 identified flavour as the most important factor, followed by sugar content, fat content, price and the quality certification. Chi-square analysis revealed that the consumer demographic profiles were significantly ( $p < 0.05$ ) different among clusters with respect to age, education level, occupation and household income. The conjoint analysis results revealed that even though the consumers are health conscious, their flavour preference also plays a significant role in selecting healthy ice creams. Therefore, further studies are suggested with real samples to find out the actual preferences of the consumers and make inferences.

**Keywords:** Attributes, Cluster analysis, Conjoint analysis, Healthy ice cream

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