

Health knowledge of consumers can influence the choice of sweeteners used by food manufacturers.

What is this research about?

Information about links between diet and health is increasingly available to the public. Consumer awareness of the relationship between the foods they eat and their personal health has been a stimulus for change in both food consumption and food processing behaviour. For example, as consumers become more aware of the negative health effects of certain sweeteners, including sweetening agents such as high fructose corn syrup, their demands change accordingly. This study reasons that when deciding which sweetener (or combination of sweeteners) to use in their products, food manufacturing firms are likely influenced by both publicly available health information and the relative cost of production of using different sweeteners. Essentially, these firms need to weigh the costs of substituting the sweetener currently used in their product against the benefits they might receive from maintaining or increasing their market share. This research therefore seeks to examine the relative importance of publicly available health information and cost of sweetener substitution from the perspective of U.S. food manufacturers. In this study, the sweeteners examined were high fructose corn syrup and cane sugar.

What did the researchers do?

The researchers first used economic models to estimate the relative cost to manufacturers of using each type of sweetener in U.S. food products. This enabled them to comment on whether manufacturers are likely to substitute cane sugar for high fructose corn syrup (or vice versa), based on market forces. The researchers then used statistical techniques to determine whether there is a relationship between the use of a particular sweetener and publicly available health information.

What you need to know:

While it is not the most important factor, publicly available health information does affect the choice of sweeteners used by food manufacturers. To make their decisions, manufacturers weigh the trade-offs between relative price of sweeteners and increasing the market share of their food product.

What did the researchers find?

Results showed that cane sugar and high fructose corn syrup are used more often in combination than as substitutes for one another. This may be because manufacturers blend the two sweeteners in order to produce a certain taste in their product. The use of cane sugar could be significantly affected by changing prices of corn; for example, if the price of producing corn were to rise, high fructose corn syrup would then become a less competitive substitute for cane sugar. While the choice of sweetener is influenced by cost and health information, substitution between cane sugar and high fructose corn syrup is more closely related to changes in relative prices. The choice of sweetener is more readily influenced by media coverage than by scientific publications.

How can you use this research?

The food manufacturing industry and regulatory authorities can use this research to direct attention to the importance of media information on sweetener choice.

Policy makers in the sweetener segment of food manufacturing can use this research to design policy instruments based on the nature of the price responses of cane sugar vs. high fructose corn syrup.

Keywords:

Sweeteners; relative prices; health information; trade-offs

About the University of Guelph researchers:

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