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Research Update: Consumer Responses to Price Promotion of Organic Products in Virtue and Vice Food Categories

Danhong Chen,^a[Ⓞ] Ji Yan,^b Kun Tian,^c and Rodolfo M. Nayga^d

^a*Assistant Professor of Agribusiness, Department of Agricultural Sciences,
Sam Houston State University, PO Box 2088,
Huntsville, TX 77341, USA*

^b*Associate Professor in Marketing, School of Business,
Durham University, Mill Hill Lane,
Durham DH1 3LB, UK*

^c*Lecturer in Marketing, Norwich Business School,
University of East Anglia, Norwich Research Park,
Norwich, Norfolk NR4 7TJ, UK*

^d*Distinguished Professor and Tyson Endowed Chair in Food Policy Economics,
Department of Agricultural Economics and Agribusiness,
University of Arkansas, 217 Agriculture Building,
Fayetteville, AR 72701, USA*

A substantial body of literature has examined price premiums, willingness-to-pay (WTP), and demand elasticities for organic products, but they have yielded conflicting results regarding how consumers respond to price changes of organic products. These mixed results may be attributed to a number of factors, including frequency of buying organic products, product categories, and consumers' adaptation to prices of organic products over time. This study investigates the effects of price promotions on purchases of organic products in relative virtue and vice food categories.

Consistent with prior research, we consider healthy and unhealthy foods as relative virtue and vice foods, respectively. Using data from the 2015 Nielsen Consumer Panel, our preliminary analyses focus on 57 food categories. Building on the standard log–log model of assessing the effect of price promotions on sales, we consider possible differential responses between organic and nonorganic food within each product category. The estimated demand elasticities suggest that

[Ⓞ]Corresponding author: Tel: (936) 294-1214
Email: dchen@shsu.edu

consumers are less sensitive to price changes in organic foods than in conventional foods in certain categories but more sensitive in other categories.

We use a logit model to investigate how differential responses depend on food category features, especially the virtue/vice classification. The virtue feature increases the probability that consumers are more sensitive to price changes of organic foods compared to conventional counterparts. This is consistent with past findings that the own-price elasticities of organic fruits and vegetables (virtue foods) are higher than those of their conventional counterparts using data from both the United Kingdom and United States. Consumer WTP for organic products is higher among virtue products, which translates to higher price premiums for organic virtue foods, making a price discount enticing.

A price discount on organic virtue foods is more likely to trigger indulgent consumption, as consumers don't need to find justifications for consuming larger quantities of healthy products. In contrast, to mitigate the guilty feeling from consuming vice foods, consumers may impose quantity constraints on the consumption of these foods, making them less price elastic.

We conclude that price promotion effects of organic foods are stronger in virtue categories. Understanding these differential effects has important implications for both manufacturers and retailers in terms of distinctive promotion strategies for organic virtue and vice foods.

Keywords: demand elasticity, price promotion, organic foods, vice food, virtue food

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The conclusions drawn from the Nielsen data are those of the researcher(s) and do not reflect the views of Nielsen. Nielsen is not responsible for, had no role in, and was not involved in analyzing and preparing the results reported herein.