Independent Study: Why Label Changes Don't Affect Food Prices

Prepared by Kai Robertson, independent consultant,
for
Just Label It
September 11, 2013

PROJECT OVERVIEW

Study objectives

The purpose of this study is to determine whether there is a connection between changes to product labels by food processors and prices set by U.S. supermarket operators. As such, this document:

1. summarizes factors that influence how food prices are set by supermarket operators in the United States, and
2. provides a perspective on the circumstances under which label changes are made by food processors in order to assess the impact of label changes on retail prices.

Methodology

This report is based on a desktop review of the existing literature about how prices are set at supermarkets as well as the author's own knowledge base. To determine whether label changes have historically had an impact on a product's retail price, the author reviewed the publicly available literature about the nature of label changes by food processors and searched for reports that studied the impact on retail prices of various mandatory labeling programs.

EXECUTIVE SUMMARY

Establishing supermarket prices is a complex process that is affected by a number of interdependent variables. At the corporate level, pricing strategies are established by supermarket operators based on their desired brand image and overarching strategic objectives. This influences store-level prices, which are also tied to specific category or market-related variables to which retailers need to respond.

Researchers have shown that it is the confluence of demand-oriented factors – namely consumer demographics and rival pricing behavior, along with market, chain and store characteristics – that have a significant impact on the prices ultimately paid by shoppers. While a product's wholesale cost is an important variable, it has, relatively speaking, less of an impact on retail prices than these demand-related forces.

In terms of changes made to product labels by food processors and their impact on a product's retail prices, it is clear that label changes are a minor element in the complex and fluid mix of pricing considerations that drive the price of an individual product. Food processors regularly make changes to the labels of their products – as part of ongoing product innovation to anticipate and meet changing consumer demands and for other marketing or regulatory reasons. There are no studies that document the impact of a product's label change on prices charged by supermarkets. This is not too surprising given the interdependence of factors that influence prices set by supermarkets, inherent "stickiness" of prices set at the wholesale level and the regularity with which many labels are changed as part of a company's normal business practices. In sum, this study finds no evidence that changes to a food processor's product labels affect the prices paid by shoppers.

DETAILED FINDINGS

The following pages summarize (1) the factors that influence how prices are set by supermarkets, (2) drivers of label changes among food processors, and (3) links to increased food prices from label changes.

I. Factors That Influence How Prices Are Set by Supermarkets

No simple formula

Supermarket operators face a complex task in developing pricing strategies and tactics. This is not surprising given today's highly competitive retail environment and the multitude of products sold in the average supermarket – nearly 39,000 according to the Food Marketing Institute, the leading supermarket trade association.[1]

In order to describe how prices are set by supermarkets, it's important to recognize that decisions at different levels of a company all affect pricing. At a corporate level, pricing decisions are closely related to a store's image, branding goals and overall positioning in the local market. To meet these corporate-level objectives, supermarkets choose from a myriad of tactics at store level. In pricing individual items, supermarkets adopt a range of approaches with many also considering factors that seek to satisfy regional and category-level strategies, adding further levels of complexity to item-level pricing. Ultimately, prices set by supermarkets result from a complex web of many interdependent decisions – from a supermarket's overall market positioning to shopper demographics and local market conditions. There is no one universal formula.

Despite the complexity of factors affecting pricing, one important and commonly shared truth emerges. While product costs are certainly taken into account in pricing decisions and affect a retailer's margins, it is demand-oriented factors that both marketing and economics researchers highlight as having a far greater impact on prices paid by shoppers. The five demand-oriented factors identified as important determinants of retail prices are consumer demographics and rival pricing behavior, along with market, chain and store characteristics.[2]

The following sections offer a high-level view of how supermarket operators' overarching market positioning and merchandising plans relate to prices and the impact of the afore-mentioned demand-oriented factors. Collectively they reflect the fact that decisions are made at different levels and consequently result in many different pricing outcomes.

Strategic factors affect pricing

Overall market positioning. In order for a supermarket operator to meet its overarching objectives, which include delivering on its brand promise and financial goals, it is critical to select the appropriate pricing strategy. Its overarching corporate-level goals are typically based on an assessment of its customers, competitors and own capabilities. This analysis is in turn used to identify the company's marketing strategy and drives how it will maintain and expand its customer base through product, price, place and promotion decisions.

Among supermarket companies, common marketing positions typically revolve around some combination of the value equation, which for most retailers includes quality, variety, service and price

[1] Food Marketing Institute, http://www.fmi.org/research-resources/supermarket-facts
[2] Venkatesh Shankar and Ruth N. Bolton, *An Empirical Analysis of Determinants of Retailer Pricing Strategy,* 34 Marketing Science 23(1), pp. 28–49, Winter 2004.

image. As it is not possible for a retailer to be all things to all people, most stores choose to emphasize one or two of these elements to stand out from the competition; this is their primary position. They then try to maintain a parity position on the other dimensions. For some retailers low price will be the primary position; for others, aspects such as high quality may be the leading market position with prices therefore factoring in to a relatively lesser extent and set to be at parity with the competition.

As part of its positioning, supermarket operators also consider factors that affect its market perception, such as whether to take an "Every Day Low Prices" (EDLP) approach that favors consistent pricing or a "Hi-Lo" strategy with frequent temporary price reductions, i.e. sales and promotions. Shoppers may use such brand images as early screening choices in deciding where to shop, giving price a "branding value" beyond simply the financial implications for retailers. Pricing programs also evolve in response to the changing retail and shopper landscape. A current trend is the use of "price promises" that pledge to match competitor prices on individual items or baskets of products. These are being used to reinforce a retailer's price-value image and drive spending and loyalty.[3]

Merchandising plans. How individual items and even entire categories of products are priced in a supermarket (whether regular and promotional pricing) is based on the need to balance profits, volume and image objectives. While pricing is therefore clearly an important element of a retailer's merchandising mix at the individual product level, it is only one part – promotion, merchandising and product mix decisions are also key and ultimately affect pricing decisions.

Many supermarkets practice category management, in which they develop specific category-level strategies based on an assessment of consumer needs, category trends and the competition. Product-level decisions are therefore often made based on category-level goals and criteria, rather than at an individual brand or item level. The tactical plan for executing a category strategy will include pricing elements, *along* with promotions, product mix and space management plans. The products and brands that make up a category are related and as such decisions about one product usually affect other products in the category. For the category plan to be effective these marketing mix elements (of which price is just one) need to be coordinated and prices, logically, aren't set or changed in isolation of the broader plan.

Demand-oriented factors affect pricing

Supporting the importance of corporate and category-level strategies are numerous studies which highlight that the most significant drivers of supermarket prices are demand-oriented. The five drivers that are most often noted are shopper demographics and rival pricing behavior, along with market, chain and store characteristics.

Shopper demographics. Researchers Ellickson and Misra (2006) conclude in their study that "consumer demographics play a significant role in the choice of local pricing strategies: firms choose the policy that their consumers demand." Several other frequently cited papers highlight the impact of demographics on pricing strategy (Ortmeyer et al., 1991; Hoch et al.,1994; Lal and Rao, 1997; Bell and Lattin, 1998) and note the particular importance of factors such as income, family size, age and access to automobiles.[4] These demographic variables also influence shoppers' price sensitivity, product-level preferences and overall behavior.

[3] Jon Hauptman, *Is a Price Promise Right for You?,* Competitive Edge, Willard Bishop, May 2013.
[4] Paul B. Ellickson and Sanjog Misra, *Supermarket Pricing Strategies*, Duke University and University of Rochester, November 2006.

Consumers' shopping behaviors are regularly shifting, influenced by factors that include the state of the economy and use of technology (such as smart phones to scan and compare prices and promotions). As shoppers shift, pricing strategies and the tactics deployed will typically also be adjusted to align with changing consumer needs, wants and preferences. Recently, for example, Rabobank Research released a report about the "hybrid consumer" who shops for value brands and premium brands, ignoring products that are "in the middle."[5] This new trend among shoppers is causing retailers (and their brand partners) to reconsider their overall marketing strategies, which will therefore also affect pricing strategies and tactics.

Competition. With respect to the actions of competitors, researchers Shankar and Bolton (2004) built upon other studies to show that the price and promotion decisions of competitors play a significant role in retailer's prices. Their findings include a review of the frequency with which competitors offer deals and the effect on how consistent a retailer's prices are in the face of these types of actions. Ellickson and Misra (2006) also examined the impact of competition and determined that stores competing in a given market choose pricing strategies that match rather than deviate from their rivals. In today's highly competitive retailing environment, the local market's prices are a significant factor in a supermarket's prices, even causing companies to drift away from other strategic pricing decisions.

For many supermarket operators, Walmart in particular has a significant effect on prices. The renowned retail consulting firm, Willard Bishop, has found that Walmart's price advantage over traditional full-service supermarkets is often in the 12-20% range on a robust basket of non-perishable and perishable goods.[6] While a few retailers are able to offer prices that match Walmart's, most supermarket operators simply cannot. Instead, retailers aim to offer prices that are not disruptively higher than Walmart's and otherwise manage the price differences to send the appropriate message to shoppers. Rather than compete on price alone, they compete on other factors; for example, the shopping experience or convenience benefits offered, and consider the complex and fluid mix of pricing considerations before setting their unit prices.

Market, chain and store characteristics. Prices may be affected by the type of *market* in which a supermarket is located, i.e., urban, suburban or rural, as well as *chain* size and *store* size. A U.S. Department of Agriculture (USDA) study found, for example, that supermarkets in central cities tend to have higher prices than those in suburban areas. This is likely because central-city business costs are higher and they may face less competition. The same study also noted that small stores charge an average of 10 percent more than supermarkets. The assumption is that larger stores can charge lower prices because of their "economies of size" and offer a greater assortment of store label and generic items, which typically sell for lower prices.[7]

The relative role of wholesale costs

Given the wide range of factors that influence product demand, an item's wholesale cost is not the primary driver of prices paid by shoppers, even though this may seem counterintuitive. The relatively minimal role of cost in determining retail prices is noted in a report by the Federal Trade Commission

[5] Carel van der Hamsvoort, *The Rise of the Hybrid Consumer*, Rabobank Research, 2013.
[6] Jon Hauptman, *Are You Ready for the Walmart Pricing Challenge?,* Competitive Edge, Willard Bishop, September 2012.
[7]. Phillip R. Kaufman, James M. MacDonald, Steve M. Lutz, and David M. Smallwood, *Do the Poor Pay More for Food? Item Selection and Price Differences Affect Low-Income Household Food Costs.* Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 759. November 1997.

(FTC). It states that empirical studies have revealed several regularities in retail pricing behavior, one of which is that most retail price changes reflect changes in retail margins, rather than changes in wholesale prices (from Levy et al. [1999]). The FTC report studied how retailers adjust prices through sales, that is, temporary reductions in prices. That these reductions are made independent of cost is just one example of a product's prices being decoupled from the wholesale cost.[8]

II. <u>Drivers of Label Changes Among Food Processors</u>

Food processors regularly make changes to the labels of their products. One of the primary reasons for this is product innovation, which is central to anticipating and meeting changing consumer demands. As part of their innovation cycle, food companies often redesign and re-launch products, adding "new" attributes to existing products such as different flavors or added ingredients. Labeling is commonly used to communicate these product improvements to shoppers, and therefore changes are regularly made to the labels of many products. This is underscored by a survey of food processors in the UK, which found that the most common reasons for label changes are voluntary redesign (36%) and re-launch (21%), followed by new product launches (11%) and reformulation (10%). While this study was undertaken in the UK, it can be assumed that food processors in the UK act similarly to those in the US.[9]

Several other factors in addition to the regular rhythm of product innovation affect how often food processors make changes to a product's label. The frequency is influenced by a company's marketing culture, the type of product, and the degree of competition for that product in the market. A company that is more marketing-oriented, for example, may make greater use of "on-pack flashes," which can range from "contains x" type of statements to promotions such as "free x with y purchases." Label changes are also more prevalent in categories where competing products are perceived to be equal (such as breakfast cereals or beverages) and a market advantage is sought through tempting on-pack offers.

That regular label changes are a standard part of a food processor's activities was also noted in the US Food and Drug Administration's (FDA) Labeling Cost Model report. It noted that manufacturers of branded products generally do not order more than one year's inventory of packaging or labels at a time because they frequently update the labeling information for marketing reasons.[10]

III. <u>Links to Increased Food Prices From Label Changes</u>

There are no studies that document the impact of changes to a product's label on the prices charged by supermarkets. This is likely because many factors influence how prices are set, as noted in this report. Researchers presumably see little value studying this link, as it is difficult to tease out the association between a price change and a specific action, such as a label change, when so many other factors play a role in the final product price.

Information does exist about attempts to *predict* possible labeling-related costs. This includes the FDA Labeling Cost Model and a study undertaken in response to Proposition 37, The California Right

---

[8] Daniel Hosken, David Matsa, and David Reiffen, *How do Retailers Adjust Prices?: Evidence from Store-Level Data***,** Federal Trade Commission, January, 2000.

[9] Maria Balazs-Horvath, Neville Craddock, Andrew Morgan, *Developing a Framework for Assessing the Costs of Labelling Changes in the UK*. Conducted on behalf of Department for Environment, Food and Rural Affairs (DEFRA) by Campden BRI, May 2010.

[10] Mary K. Muth, Erica C. Gledhill, Shawn A. Karns, RTI Project Number 06673.010, *FDA Labeling Cost Model: Final Report*, prepared for Dr. Amber Jessup, DHHS/PHS/FDA/CFSAN/OSAS/DMST, revised April 2002.

to Know Genetically Engineered Food Act. The FDA report, however, only focused on the possible costs that might be incurred among food processors due to labeling regulations – and not the extent to which these are actually realized, or passed through to retailers and shoppers. The research related to Proposition 37 estimated the possible increased cost to consumers from labeling GE foods but was based on a set of assumptions that extended far beyond the label changes, including the substitution of ingredients by food processors and significant changes in shopper's purchasing behavior.[11]

As with supermarkets, a food processor's overall costs (and therefore prices charged to retailers) are affected by a wide range of variables, most significantly the cost of ingredients and energy prices, as well as manufacturing, packaging, and marketing expenses. Label changes are but one of a myriad of necessary and voluntary variables that affects a manufacturer's costs and therefore prices.

Even though a food processor's costs naturally fluctuate, there are several factors that deter companies from making adjustments (either up or down) in the prices charged to their retail or wholesale customers. Economists call this "price stickiness," meaning the tendency of prices to remain constant despite changes in supply and demand. This stickiness has been linked to companies being unwilling to risk losing long-term customers by raising prices and to "repricing" costs, which include managerial time to set, implement, and advertise new prices. On this last point, researchers note that the cost of repricing is markedly higher for manufacturers than for retailers and conclude that, at the wholesale level, these costs are a significant deterrent to making price adjustments.[12]

In addition to the stickiness of prices, economists note that the pass-through of costs is predicted to be even lower when shocks to marginal costs are *anticipated* by firms.[13] Most changes that will be made to labels are known in advance and can be incorporated into a company's manufacturing cycles. In combination with the other factors mentioned, this helps to explain why the cost of label changes has not been found to affect the prices charged by supermarkets.

About the author. *As an independent Senior Corporate Sustainability Advisor, Kai Robertson provides practical guidance to companies and non-profits. She draws on more than two decades of experience working closely with a wide range of food retailers and consumer packaged goods companies.*

Most recently, Kai led the global food, beverage and agriculture practice for BSR, a world-renowned leader in corporate responsibility, where she developed effective business strategies and solutions. Earlier in her career, she played an influential role at the leading supermarket trade association, the Food Marketing Institute (FMI), researching and speaking about a range of food and retail industry trends, from category management to consumer's interest in health and nutrition. Kai is a frequent public speaker on sustainability and food industry issues and has served on several advisory councils. She received her MBA from Northwestern University's Kellogg School of Management and undergraduate degree from Cornell University.

[11] *The Genetically Engineered Foods Mandatory Labeling Initiative: Overview of Anticipated Impacts and Estimated Costs to Consumers*, Northridge Environmental Management Consultants, July 2012.
[12] Pinelopi Goldberg and Rebecca Hellerstein, *Sticky Prices: Why Firms Hesitate to Adjust the Price of Their Goods*, Vol. 13, Number 10, Current Issues in Economics and Finance, Research and Statistics Group of the Federal Reserve Bank of New York, November 2007.
[13] Morten Ravn, Stephanie Schmitt-Grohe, Martin Uribe, *Incomplete Cost Pass-Through Under Deep Habits*, Working Paper 12961, National Bureau of Economic Research, March 2007.