Separating Negative and Positive Effects of Price with Choice-Based Conjoint Analyses

by Franziska Völckner and Henrik Sattler

Consumers use the price of a brand both as a signal for product quality and as a monetary constraint when choosing a brand. Consequently, price has two distinct roles whenever consumers evaluate a product, i.e., an informational (signal) role and an allocative (constraint) role. These two roles are conceptually distinct, yet measuring them becomes confounded due to the difficulties of empirically isolating their distinct effects. In practice, only the total effect of price is estimated, particularly by using conjoint analysis. The three main objectives of our research are: (1) to present a new methodology in a choice-based conjoint setting that is designed to isolate and estimate separate effects of price. A segment level analysis and an individual level analysis are conducted using latent class and hierarchical Bayes procedures to account for respondents' heterogeneity; (2) to quantify the different effects of price by calculating price elasticities for each effect; and (3) to test the validity of the proposed methodology in an empirical setting within the scope of a large representative sample.

Keywords
Pricing, informational role of price, allocative role of price, choice-based conjoint analysis

1. Introduction

It is well known that price is a complex stimulus. At a minimum, price represents the amount of money that must be given up. However, many consumers perceive price more broadly than strictly as an outlay of economic resources. Numerous studies have provided evidence that many consumers use price as an indicator of product quality (e.g., Sattler/Rao 1997; Lichtenstein et al. 1993; Erickson/Johansson 1985). Product quality in a broader sense comprises different dimensions, e.g., the quality of the physical product attributes, social desire of prominence and status (purchasing products with higher prices signals the achievement of a desired social rank to an audience of peers), or egocentric desires to give oneself a present. Thus, the perception of price as an indicator of quality is not a unidimensional one. Evidence suggests that the use of the price cue as a signal to indicate product quality varies across situations and products (e.g., Erdem 1998; Urbany et al. 1997). In addition, some consumers are simply more likely than others to use price as a general indicator of quality across situations and products (e.g., Lichtenstein et al. 1993).

These two distinct roles that price plays in consumers’ evaluation of alternative offerings in the marketplace can be labeled as the allocative (constraint) role of price and the informational (signal) role of price (Urbany et al. 1997, p. 45). The allocative effect is the consumer’s evaluation of the amount of money that must be sacrificed to satisfy consumption needs. In this respect, the price represents a financial burden, and higher prices therefore negatively affect purchase probabilities (negative role of price; Erickson/Johansson 1985). Due to informational effects, some consumers may also perceive prices in a positive role, i.e., they assume a positive association between price and perceived quality (and vice versa) that result in positive price elasticity of demand. Consumers primarily tend to use price as a surrogate indicator.