Market Turbulence Following a Major New Product Introduction: Is It Really So Bad?

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ABSTRACT

Apart from its beneficial effects on sales performance, the introduction of a major new product in the market can be an important source of concern to managers if it results in higher uncertainty and a significant rise in sales volatility over time. From an operational perspective, more volatile sales is undesirable for manufacturers who face difficulties in planning production, while also retailers will experience increasing inventory complexity and costly stock outs with large sales swings. However, from a demand perspective, we provide arguments that large sales peaks followed by steep drops in brand sales after innovation launch could have both positive and negative effects on (cumulative) sales levels and the brand's growth prospects.

Using a multivariate Generalized Autoregressive Conditional Heteroscedasticity model (GARCH), this study empirically establishes that the launch of Coca Cola Zero in Germany in 2008 was indeed associated with a significant and persistent rise in sales volatility at four main German retailers that adopted the Coca Cola Zero innovation upon market launch. Not only the innovating brand faced larger sales swings, but also its main competitors Pepsi and the retailer's private label were affected. The model further incorporates the volatility estimates into a reduced-form VAR model to assess if higher brand and/or store sales volatility around launch was rewarded and thus associated with larger sales levels over time, or whether it instead inhibited growth and reduced brand and category performance in the long run. This paper bridges topics on new product introduction (NPI) and sales volatility modelling and contributes to the literature by studying the dynamics caused by the former on the latter and eventually on sales levels. Our findings reveal that sales volatility is not always bad, but can improve brand and category performance levels at the retailer. Hence, the common reaction by managers to (try to) smooth out large sales fluctuation may not always be warranted.

Keywords: New product, sales volatility, retailer, time-series econometrics, GARCH

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