Marketscience Study Challenges Dual-Adstock in Marketing Mix Modeling (MMM)

Peer-reviewed research reveals how traditional MMM methods may overstate long-term ROI and misrepresent brand-building impact

Marketscience - advanced marketing measurement and optimization

NEW YORK CITY, NY, UNITED STATES, July 1, 2025 /EINPresswire.com/ -- Marketscience, a leading consultancy in advanced marketing analytics, today announced the publication of a new peer-reviewed paper in Applied Marketing Analytics, authored by Executive Partner Dr. Peter Cain. The paper, titled “Long-term Advertising Effects: The Adstock Illusion”, questions the validity of one of the most widely used techniques in commercial marketing mix modeling (MMM): the dual-Adstock approach.

The research provides a critical examination of how long-term advertising effects are typically measured – and reveals that standard dual-Adstock methods may overstate the lasting impact of marketing investments, leading to inaccurate ROI estimates and misguided budget decisions.

“Too often, we see brand-building effects being assumed, not proven,” said Dr. Cain. “This paper outlines a more credible, time-series-based framework that helps marketers distinguish between short-term sales activation and true, persistent brand growth.”

The dual-Adstock method, which applies different retention rates to the same advertising input in an attempt to separate short- and long-term effects, has become a common industry standard. But Cain’s findings show that this practice can produce spurious correlations – especially when high-retention Adstocks are used to simulate long-term brand effects in sales data that don’t actually show long-term shifts.

The paper offers an alternative modeling approach based on the time-series properties of the data. It recommends first testing whether sales exhibit a permanent (non-stationary) component before attempting to measure brand-building effects. If not, all observed impact is likely short-term and mean-reverting i.e. not indicative of true brand equity growth.

Why this matters for marketers:
• Many MMMs may be misrepresenting brand effects – overstating long-term ROI
• Better modeling protects against over-investing in underperforming tactics
• Understanding the difference between temporary lift and base sales evolution is key for credible, strategic media planning

The full paper is available in Applied Marketing Analytics, and a practical summary can be found on the Marketscience blog:
 https://market.science/modelling-the-long-term-the-adstock-illusion/

About Marketscience
Marketscience is an independent marketing analytics consultancy specializing in advanced econometric modeling, time-series forecasting, and marketing effectiveness strategy. With a blend of academic rigor and commercial expertise, the firm helps brands, agencies, and consultancies make smarter, data-driven decisions about their marketing investments.

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