A Modern View of Marketing Mix Modeling



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Understand marketing mix modeling to build a better measurement strategy for your organization.

Marketing Mix Modeling (MMM) emerged as an academic discipline in the 1980s before later being adopted by several advertising agencies as a mechanism to statistically analyze and forecast sales and make informed decisions about marketing investments. Over time, MMM has matured and grown in its ability to ingest and account for a greater number of marketing variables, yet it still remains a somewhat misunderstood topic even amongst marketers.

If you are currently evaluating MMM as part of your planning or as a component of your performance marketing management strategy, this whitepaper will help you get started.

Why Marketing Mix Modeling?

Marketing Mix Modeling (MMM) is a way for marketers to gain visibility into the extent to which business results, such as sales, are driven through marketing initiatives. Traditionally, statisticians and marketers have attempted to use econometric approaches, such as MMM, to evaluate the efficacy of marketing, generally stated in terms of return on investment (ROI). The results of these analyses allow marketers to justify budgets to financial stakeholders including the CFO

In layman's terms, MMM seeks to demonstrate how much business success was generated by controllable marketing variables, otherwise known as the four Ps of marketing: Price, Product, Place and Promotions.

How Marketing Mix Modeling Works

Typically, MMM analysis involves two separate phases.

The first phase involves data collection to inform the analysis. This involves either utilizing time-series, aggregated data or self-stated guestionnaires in order to understand consumer behavior in regards to exposure to advertising. These approaches can also be used in combination. Time-series analysis involves creating many different intervals (e.g. 52 weeks, 24 months, etc.) and the corresponding business results within those periods. Similarly, survey data captures purchase intent during specific time periods.

The primary criticism of survey-based approaches is the associated cost and focus on 'intent' vs. recognized revenues. Time-series analysis is often less time intensive and more cost effective to execute.

The second phase is when the actual analysis occurs. In time-series analysis, a regression model is usually at the foundation. These models are predicated on the decades-old concept known as "adstock" which describes the prolonged or 'lagged' influence of advertising on consumer purchase behavior. Each model is unique, but all share common attributes (e.g. thresholds, saturation levels, etc.) and analysis involves understanding the optimal mix of marketing variables (the four Ps) as well as forecasting the business impact of integrated marketing campaigns.

Common Critiques of Traditional Marketing Mix Modeling

The most common critique of traditional MMM approaches is that reports are too infrequent and lack modern conveniences like a modern, dynamic user interface or integration with business intelligence tools. Additionally, because the data collection requirements for MMM involves a rigorous, lengthy process some feel it lacks the level of granularity and real-time analysis required to deliver actionable insights regarding how to maximize marketing performance beyond budget allocation.

Another criticism from digital marketers is that traditional MMM tends to under credit smaller channels, such as online video, paid social and mobile, which often serve as "promoters" or "influencers" moving leads down the marketing funnel. This can lead to brands undervaluing these channels and potentially losing opportunities.

Marketing Mix Modeling vs. Data-Driven Attribution

One major difference between MMM and marketing attribution is that MMM involves aggregate data, whereas digital marketing attribution involves one-to-one, user-level data. Another difference is that MMM uses historical data (previous quarters or annual results) while marketing attribution, when applied to digital channels, often involves real-time analysis of performance data.

Conversely, it's important to note digital is only a piece — albeit growing -- of the overall marketing budget. For marketers that want to know how digital channels are performing relative to other traditional channels, such as TV, radio or direct mail, MMM and attribution can be employed together.

Adometry and Marketing Mix Modeling

In order to keep up with the modern era of consumer behavior and marketing mix, Adometry believes MMM must incorporate both a top-down view of the marketing mix in combination with a bottoms-up data-driven attribution solution.

Adometry's approach is built on proven, econometric lag regression models designed to evaluate all marketing channels, encompassing both digital and traditional, offline channels including broadcast, print and out-of-home, in conjunction with external factors such as economic, competitive and promotions to accurately measure their effects on key business outcomes. A unique data analysis process then integrates aggregate-level, time-series marketing data sets with exogenous data (seasonality, competitive information, etc.) to drive a more accurate understanding of the complete marketing mix.

Preparing for Marketing Mix Modeling

Like any other strategic initiative, Marketing Mix Modeling is most successful when approached holistically by key stakeholders across the organization. Following the steps below will allow you to get the most from your MMM engagement.

- 1. Establish goals. Before you begin, you need to clearly define organizational priorities and key questions the MMM initiative will seek to answer. These questions will guide both the scope of your MMM initiative as well as the data requirements to offer actionable recommendations.
- 2. Align your organization and key stakeholders to understand the data. For most organizations, collecting relevant data for modeling will involve assembling a team encompassing the CMO, TV channel owners, site analytics, agency partners, CRM managers and more. These individuals should be engaged early in the process to establish ownership and a common roadmap for the MMM initiative.
- **3. Identify relevant data.** Start with existing data repositories. Take advantage of your organization's Business Intelligence platform and other key reporting tools to understand what data has already been collected and can be repurposed for MMM. This will save time and help involve stakeholders responsible for managing those tools.
- 4. Understand your access to data sources, including any limitations. Take time to create an inventory of available data, at as granular a level as possible, as well as any associated costs. Keep in mind, in some cases third-party data only may be accessible indirectly through a subscription. You'll also want to account for data frequency across sources including any limitations or delays for offline data sources.

Completing the Picture: Marketing Mix Modeling Plus Data-Driven Attribution

Brands that rely on both digital and offline channels should absolutely explore integrating digital attribution into MMM analysis to inform decision making and ensure digital channels are accurately captured and accounted for within forecasting models.

Just as digital analysis alone is incapable of delivering a truly comprehensive view of marketing performance — both online and offline — traditional MMM analysis often lacks the granularity required to fuel strategic decisions around optimal annual marketing spend, across channels, brands and geographies. Incorporating digital attribution within MMM analysis offers the most complete view of marketing performance to give you — and the C-suite — the information you need to get the most from your marketing investments.

In Conclusion

As the media landscape continues to transition to digital, incorporating attribution into MMM analysis will help eliminate the guesswork from channel allocation and ensure your organization is fully equipped to handle the ever-changing landscape.

Finally, as you evaluate whether your organization would benefit from Marketing Mix Modeling, consider how external resources can augment and assist your internal teams to create the optimal mix of MMM experts, consultants and strategic thinkers necessary to fully understand existing media and marketing efforts and to build constraints. Remember, even the best models will fail without the right combination of people championing your MMM and digital attribution initiatives.

Next Steps

To learn more about Adometry's Marketing Performance Management Suite, please drop us a line at info@adometry.com or visit www.adometry.com.



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Adometry by Google transforms the way the world's top brands improve marketing performance. Acting as marketing's "system of record," Adometry solves the complex challenge of integrating, measuring, and optimizing marketing performance across all channels—both online and offline. Combining and interpreting previously silo'd sources of data; the Adometry Marketing Performance Management Suite provides data-driven attribution, modern marketing mix modeling, and intelligent optimization recommendations across and within channels. As a result, marketers are able to identify their true impact on the customer journey and generate actionable insights that improve ROI.