



MMM PRACTITIONERS STARTER KIT

Answers to 3 Key C-level questions



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INTRODUCTION

Marketing Mix Modelling is a technique supporting marketing and business decisions which is getting more and more traction in recent months as it brings promise to address key industry challenges with measurement. Many companies want to try but it's complex. This paper answers 3 key questions every business will face - if, how and what's next?

Performance advertisers can no longer rely solely on legacy attribution solutions which are now lacking cookies and device IDs to stitch the digital journey together and are heavily impacted by privacy regulations. That is even more true for web and app advertisers who struggle with understanding the real impact of their marketing as siloed measurement systems do not provide a full picture. It's getting even more complex if you are an omnichannel player with a strong ecom but still a big offline legacy.

There are some alternatives though - experiments that are based on randomised control trials with a control group (not exposed to ads) would be able to answer the question of "how many people targeted by a campaign would have purchased regardless of the ad?".

Although they add accuracy, experiments have limitations as well - in that they are often "in platform" and not "cross-platform" and can offer insights that are useful for in-platform optimisation, but not for cross-platform media planning.

Marketing Mix Modeling (MMM) examines how a large number of variables impact sales - both media factors but also non media ones. The goal is to understand which marketing channel or strategy (eg promotional strategy - eg discount price vs buy 1 get 1) impacts sales, over and above the baseline of sales that are happening irrespective of paid advertising. With MMM, data is aggregated and anonymised, making the solution privacy safe. That seems like a holy grail for many, and the rapid rise of MMM industry (incl CMMMO position) is visible. Same time many face challenges in making it work. That is why we bring a starter kit based on hundreds of projects we've already delivered to guide through this process.

3 questions every C-level is asking - if (will this work for us?), how (how to implement this?), what's next (how to make it a successful part of our decision making process)?



QUESTION 1

IF

Promise is big - connecting all things that impact sales on one page, understanding the value of each strategy, see ROI of every channel in the same way in one place and do this in a privacy-safe way - that is what every company should have. Then comes the questions to what extent the promise can be delivered for a performance advertiser?

MMM is changing. It's no longer the technique reserved to large established CPG, Retail and Autos brands. It's evolving from static multi-year models into dynamic shorter and more granular models. Machine learning, automated variable selection is taking over from the traditional "hand-made" manual modeling, minimizing exposure to the analyst's subjectivity.

And finally digital marketing's data availability and readiness makes Direct Response marketing an auspicious contender for MMM. Today (with latest developments like Robyn, SaaS MMM tools etc) You can scale models quickly and affordably across many markets, business units - especially when You own the whole process. Proofs You can find in tens of cases new businesses and also through tens of publications. All this being reflected in an overall prolific use of the MMM approach across key decision makers: according to [The CMO Survey](#) by the Duke University and Deloitte almost half (48,7%) of marketing leaders do leverage the MMM in their day to day operations. Finally You read this so we can assume IF is already answered.

Be resilient!:
Rome wasn't built in a day

3 KEY CHALLENGES FOR NEWCOMERS TO MMM

The initial excitement of starting your MMM journey, especially when choosing an inhouse delivery of models, can at times be quickly overshadowed by mounting challenges and problems. Don't be discouraged! Even if the initial projects take more time, stay committed and power through the difficulties. During the early steps it is often productive and constructive to have an experienced MMM expert/partner by your side to help you troubleshoot/assist as you move along the crawl-walk-run axis.

To illustrate potential challenges three example challenges across different process stages with comments on the solutions below.

1. Data: Data availability

Data availability together with data quality / missing data is a very common initial challenge and in truth to an extent appears in every MMM project. For multimarket organizations it is usually the case that top tier markets do enjoy a solid data environment, but smaller ones suffer from multiple data issues such as shorter time periods, missing data or outright missing context variables.

Recommended approach with data challenges would be to (a) assess how data deficiencies impact MMM results and if we are still able to answer main business questions and (b) whether we are still able to build an overall good quality model. We can then introduce different tiers of MMM results/quality such as:

- Deep-dive MMMs with high results granularity for top tier and data rich markets “Basic MMM”s for smaller markets with only top-line (e.g. channel level) ROI results
- Benchmarks (ideally fine-tuned to account for market specificity) for cases when running an MMM would be uneconomical and/or not advisable from data quality/availability perspective



2. Modeling: Being stuck with an improbable (business-wise) model

The range of problems leading to an improbable/inconsistent MMM model is virtually unlimited and it is well beyond the scope of this article to even attempt at a comprehensive overview of potential MMM model issues. Having said this, when you are - across many model iterations - time and again ending up with model results which are improbable/wrong from a business standpoint you can always try to:

- Liaise with business stakeholders to make sure you understand all the key business events affecting sales happening within your modeled period (new product launches, key price dynamics, key competitors dynamics, external factors, regulatory changes, etc.); what are the key business facts that we are trying to quantify and measure with an MMM model. Once this is well understood we need to make sure we have variables (even proxies) in the MMM model able to account for all such key business facts/events.

Think twice about the KPI you model and the consumer journey that connects your media and marketing investments to the modeled KPI. Are we accounting in the MMM model for the specificities of the consumer journey? E.g. the length of time delay between an impression seen and a final sale happening or the return/sustained purchases after the initial customer acquisition? Once the link between marketing and media investments and our KPI is revisited and well understood make sure we are applying the right variable transformations and model parametrizations for it to be able to account for how the actual purchase journey looks like

- If the difficulties are of technical nature or you feel stuck no matter what, do not be afraid to seek external assistance of an experienced MMM expert/partner. Good MMM partners know how to provide the sometimes necessary assistance and a bit of hand-holding while avoiding any type of vendor-lock or other form of vendor-client addictive relationship.



3 KEY CHALLENGES FOR NEWCOMERS TO MMM



3. Implementation: Explaining the past vs forward looking scenario planning

It is true that MMM ROIs are reflective of the past - they measure past investments at their respective historical executional quality levels. Now, the extent to which using such estimates for future budget planning and optimization is warranted without any adjustments rests on a number of factors such as:

- How do we adjust our in-channel tactics/execution going forward: is it evolutionary or revolutionary? Are we drastically changing the way we execute a given channel?
- Are by channel costs changing asymmetrically: are there specific channels that are becoming much more expensive much quicker than other ones? Do we expect a very large/very significant price increase for one of the channels?
- Do we broadly follow the same big picture strategy (consumer/prospect targets, brand vs performance messaging, creative big idea, etc.) or are we launching a completely new approach to media and marketing?
- Have consumer patterns and/or media consumption habits stayed broadly similar to the time of ROI measurement or have we experienced significant shifts? (usually, these are rather slowly evolving trends than changes that happen drastically from month to month or quarter to quarter but that may vary for audiences or verticals)
- Other very significant changes to our business model/business overall

Once we have an assessment of what is changing in our business and media/marketing environment we can draft a solution addressing the challenges. And these can range from:

- Simple constraints on optimizations (e.g. mandatory minimum spend for a new tactic to be evaluated as part of a T&L agenda, irrespective of historical ROI)
- Adjustments to ROIs (e.g. decreasing the ROI relative to all other ROIs due to asymmetrical cost increase)

All the way up to:

- Deciding on an ongoing MMM framework with e.g. by quarter or by month model refreshes to be able to faster capture the changing nature of our investment options efficiencies





QUESTION 2

HOW

There are multiple ways to execute on an MMM project. Advertisers can pick the most appropriate one based on a list of factors that includes media complexity, customized scope, data ecosystem, analytical capabilities and desired frequency of insights but in any of the case there will be 2 key elements to consider: model of implementation and team (resources).

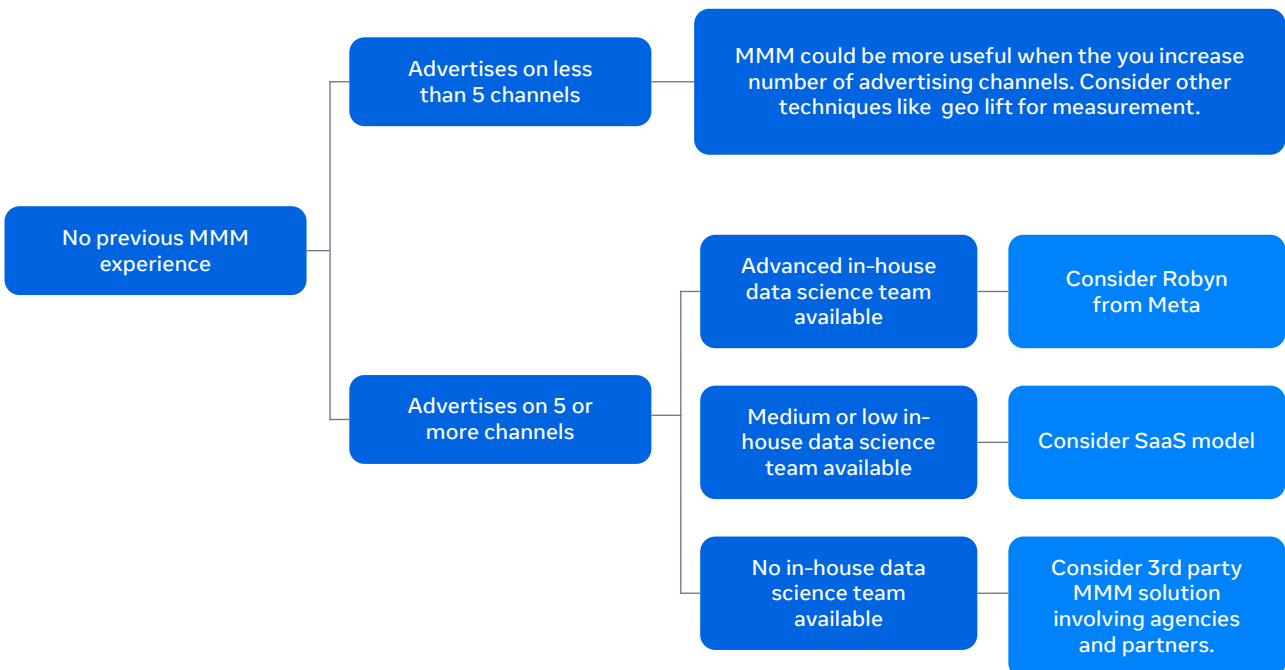
MODEL OF IMPLEMENTATION

As a general rule: In-Housing your MMM, or leveraging a SAAS solution will deliver the most value for advertisers who:

- Have a mature data ecosystem, preferably within an internal data platform that allows for streamlined data collection and processing
- Have access to a Data Science or Analytics team, who can build and maintain the models
- Can make use of a higher frequency of insights



Considering the right solution



TEAM

Next to the way of implementation you need to think about the team. You need project stakeholders that covers 3 key skill-sets. Those are:

- Analytical Skills
- Marketing Strategy
- Business Insights

While every MMM project will have its unique features and scope differences there indeed is a good blueprint for MMM success from a stakeholder management perspective. And the main principle, that has been proven to work time and again, is very clear: there needs to be business+analytics teams working hand in hand right from the start and all the way. And while analytics people are usually by definition engaged from the very start, there is sometimes temptation to wait involving senior business stakeholders until there are results to present, until we are already able to bring recommendations to the table. But from maximizing the project's impact that is a mistake. Leadership (i.e. media/marketing and sales key leadership roles, ideally the company's CMO and CFO (yes! MMM is a tool for CFO as well)) should be involved right from the start of the MMM project with their active presence during all key project milestones.

And yes, including intermediary milestones such as Data Validation (reviewing and signing off on the data gathered for the project) meeting and Work in Progress session (reviewing early models and initial results). As for the specific roles to define, it is key to have at least the following included in the project:

- Analytics leader and single point of contact for data gathering to ensure coordination and ownership of the data gathering process across all the departments providing/sourcing the data; ownership of the models
- Senior business sponsor and overall project owner (CMO/CFO or senior media/marketing/sales leader) to keep track of project's alignment with overall strategic business objectives/perspective, provide proper project's visibility across the whole organization, assign and enforce proper resources are dedicated and secured for the project as well as facilitate and push results' deployment and implementation
- Marketing/Media execution leads (internal teams if available or external agency leads if responsible for marketing/media execution) to first validate the data going into the MMM, but equally important to ensure MMM actionability (define how the results should be presented/split/shared so that they can be acted upon in day to day budget allocation decisions)

“We’ve defined an extremely ambitious goal for the MMM project - to support us in fulfilling the vision of omnichannel retailers reaching and supporting our customers across all channels. For this we needed to have complete understanding on how our e-commerce, our apps are working together with traditional stores and how we can make our omnichannel work even better across more than 20 markets we operate in. As this is a key project supporting our business operations we’ve defined a cross team workstream to deliver. Of course BI/analytics teams are instrumental here but at the same time business and performance teams need to build this to be able to execute efficiently on the results, That is why our commerce/performance teams were in the project from the beginning.”

RADOSŁAW WOJCIECHOWSKI,
Head of E-Commerce, Reserved, LPP

“Data and science is one side of this project - having a talented and ambitious team it was feasible for us to define a project which goes beyond traditional performance analytical scope. Our teams needed to learn and adopt new techniques (first 3rd party tools, now Robyn for scaling across all our markets) but that was a part that was well structured and which with the help of our partners we were able to get a sound understanding of the MMM technical toolkit... The hardest part started when we needed to build, and properly adjust and interpret models and here crucial was the fact that since the data collection part we partnered with business stakeholders. MMM is project driven by analytics but ultimately it’s a tool for business. Great one in fact!”

MAREK PEŁSZYŃSKI,
Head of Analytics, Reserved, LPP



OK, HOW TO START?

DEFINE THE CHALLENGE AND SCOPE THE PROJECT

Start with the end vision in mind. Be clear about the outcomes you need to get out of the MMM analysis and how you will act upon receiving them at the end of the project. Align with involved decision makers on how the MMM is going to feed into their area of control.

From a helicopter-view perspective, MMM business questions/objectives can fall into one of three categories:

- Strategic decision making on optimal cross media budget allocation (Media mix and channel-level ROI related with the intention to apply the results to channel-level media mix optimization and increase the overall ROI of the marketing and media budget)
- Tactical decision making on “in-channel” optimisations (e.g. brand vs generic, 30sec vs 15sec video copy, creative A vs creative B) with the goal to improve in-channel performance, i.e. increase the ROI of individual channels and thus total ROI)
- Non-media sales drivers results (e.g. price elasticity or buy two get one free promotions) aimed at informing decisions on other than media related marketing spends
- The least complex MMMs - and thus the easiest ones from data gathering and modeling perspective - are the ones focusing only on channel-level allocation.

We do encourage however to go deep-dive and include in-channel detailed ROI splits as these types of MMMs have been found to be most impactful from additional business value perspective and allow to avoid the low-ROI-historically-always-low-ROI trap.

While defining one’s approach to MMMs depth of ROI results/insights is one dimension but an equally important one is the frequency of MMM measurement. With one-off projects providing a valuable snapshot of our business performance, but lacking in the ability to proactively define a Test&Learn agenda with MMM measurement providing ongoing assessment and course correction so very much needed to improve the overall efficiency over time.

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DEFINING KEY DECISIONS TO BE IMPACTED / KEY POST-MMM ACTIONS

Decide before the start of the project what kind of actions you will take once the project is completed and results have been delivered. Ensure the whole MMM team works with end vision as for post-MMM action points clearly defined.

01 Guiding strategic focus for the business

Knowing which sales drivers to put in the center of a brand's strategic focus and where key contexts/synergy opportunities are given MMM derived assessment of the scale of sales drivers contributions.

02 Setting the right total media/marketing budget

Understanding total level of marketing ROI as well as diminishing returns to scale/ additional investments (marginal ROI) to navigate the volume vs. efficiency landscape. Enabling total budget setting that maximizes incremental volume delivered given efficiency/profitability minimum threshold.

03 Optimizing channel-level media budget allocation

Define channels in accordance with how the annual/monthly/weekly budget allocation is performed to maximize actionability. Measure channels' ROI with MMM and optimize accordingly.

04 Improving in-channel and campaign-level performance

Align on key in-channel performance levers (e.g. creative, format, in-platform optimization KPI, flighting/scheduling) and assess ROI differences. Optimize in-channel execution accordingly.

05 Optimizing non-media sales drivers

Formulate hypotheses for non-media sales drivers (e.g. price promotions, product innovations, bundles, coupons, new distribution channels, co-ops, etc.) and validate incremental sales with MMM measurement. Adjust post-MMM strategy accordingly.

GATHER THE DATA IN ALIGNMENT WITH EXPECTED MMM RESULTS

While the main data categories like sales or media will be a common requirement among all MMM projects, their granularity and additional cross-sections will differentiate between MMM analyst's ability to deliver a Deep-dive vs. Basic MMM. The differences in the level of data detail will in most cases very directly translate into the level of detail and specificity of MMM results. The basic logic being that if we do not provide a certain split in the input data we will simply not have the ability to split the ROI results.

Luckily, the biggest media platforms have over the years made their data environments much more MMM analyst friendly and enabled the sourcing of data for the purpose of MMM modeling very straightforward and - from available splits and granularity perspective - very much deep-dive ready. A good example being Meta MMM feed now already available as part of broadly available Business Manager reporting capability.



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UNDERSTAND THE LINK BETWEEN THE DATA GATHERED AND THE MMM OUTCOME ENABLED

Variable	Example metrics	Impacted MMM outcome
Sales	value Volume Market Shares	Overall granularity of results; can be split by sales channel, by product/ product group, by buyer/subscriber category, etc
Seasonality / trend / holidays	index 0-1 variables	Synergy effects with calendar effects / seasonality effects
Price	value per unit of volume YoY Index	Insights into price elasticity and pricing optimizations
Promotion	depending on promotion type	Granularity of learnings / optimizations of promotional activities
Distribution	weighted or numerical distribution Sales channel development	Cost-benefit analysis of expanded distribution
New product launches	sales distribution	Cost-benefit analysis of new launches / new product developments
Media	impressions GRP Reach Cost	Granularity of media results; required granular splits by campaign, format, optimization method, audience, etc. to allow for deep-dive understanding of channel level ROI drivers
Competition	media-wise price-wise distribution-wise	Impact of competitive activities
Macroeconomy	consumer Confidence Index Business Confidence Index	Synergy effects with macroeconomic environment
Weather	temperature Precipitation	Synergy effects with weather patterns
External shocks - e.G. Covid	google Mobility Index New COVID Cases/Deaths	Proper assessment of external shocks costs/benefits

WATCH OUT FOR MODELING PITFALLS WHILE WORKING WITH YOUR MMM EQUATION

Given the diversity of industries and sales oriented strategies executed by various companies it is very difficult to provide a universal recipe for the creation of a good, robust model. There are however a few watchouts common to all and three of these we commented on in the MMM Starter Kit text box below.

These become especially important while building the first model for a certain category of sales - often called a foundational model - which then becomes the basis and point of reference for more frequent ongoing updates and refreshes. If there is a moment when the extra effort, on-top stakeholder involvement and potentially external support should be maximized is exactly during the foundational model setup as the good and the bad from it will very much reverberate into the future.



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MODELING WATCHOUTS

Be mindful of the below watchouts that - from our experience - do appear quite often in real life and can lead an MMM analyst astray and create serious problems for results validity.

01 Trend in the modeled variable

Trend in the modeled variable gives rise to what is called among econometricians as nonstationarity and what can in turn very easily lead to spurious regressions - i.e. variables having strong impact on sales simply because they exhibit a similar trend with absolutely no causal effect whatsoever (=wrong results). Remedies to the problem vary from including a trend variable in the model (and thinking about its interpretation) to considering an alternative target variable (e.g. shares vs. absolute levels) to theoretically grounded but much more complex solutions like modeling period-to-period differences instead of absolute levels.

Either way, if your modeled variable exhibits trends - stop, think and choose a solution. Do not leave it unaddressed.

02 Multicollinearity across media variables

Another common modeling challenge in MMMs is multicollinearity (variables having very similar dynamics in a modeled period, i.e. variables being highly correlated with each other) across media variables, esp. in a deep-dive MMM setting, when an analyst needs to work with granular channel splits and is introducing multiple additional breakdowns like by campaign, by format, by creative, etc.

From a modeling standpoint, there is no magic solution and if two variables are the same the model will not be able to tell the difference between them. In real life seldom two variables will be exactly the same, but the same logic applies to very high levels of similarity (in terms of dynamics). The way to mitigate these risks is to first control for highly correlated explanatory variables and ideally consider a model setup that eliminates/limits such situations. And second, to apply a modeling technique that is by design equipped to at least partially deal with the multicollinearity challenge like e.g. Ridge Regression (part of the Robyn framework MMM solution). Third option is brought by MMM calibration - bringing experiment results (conversion lift) to inform the model on the real impact of tested variable.

03 Model ambiguity

Managing and communicating model ambiguity is a skill in itself an experienced data scientist/analyst builds over the course of many models they created. It involves the know-how on how to deal with low spends, short execution periods, low variance in explanatory variables, etc. As usual, it is difficult to provide an always working general rule, but for newcomers to MMM it would be advised to (a) be transparent and (b) be conservative. Transparency means clearly communicating and highlighting the risks behind low scale results and indicating to the business the need for confirmatory research/analytics. Being conservative means approaching extremely optimistic ROIs behind e.g. low spends with caution as to their ability to scale efficiently / as to their replicability and e.g. assuming rather cautious constraints for the budget optimization task.

IF IT IS NOT IMPLEMENTED IT DID NOT HAPPEN

In the end the value of every analytics is measured by its impact on the business, on sales. If no action, no decision was taken based on the output of the analysis, on the recommendations it is as if we did not do it at all.

Now, business stakeholders taking action based on MMM results requires success in two areas:

- Establishing trust in the underlying mathematical model, in the MMM approach
- Equipping business stakeholders with actionable recommendations outlining specific and concrete next steps



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LEARNING TO TRUST AN MMM MODEL

Very often once a model has been built both the analyst and the business stakeholders ask themselves whether the model is the right one, the correct one and can be trusted to be applied to support real-life decisions. While we believe there is no single golden metric or criterion that once fulfilled would guarantee a model's superb quality there are a few things both the analyst and the business stakeholder can look at to increase the odds of success.

01 MMM process that is transparent and that facilitates frequent interactions between the analysts and the business stakeholders

Building trust of business stakeholders in an MMM model begins already during the Data Gathering and Data Validation stage, when even the most senior ones should participate to understand what data goes into the model, how the data looks and discuss the initial hypothesis even before the first model has been built. The engagement only continues during the Work-In-Progress meeting when still not final models are being discussed and additional checks to be performed in the models are written down as next steps. If involved properly and deeply at earlier MMM process stages, the final results meeting becomes one when results are already properly discussed only in the business context (vs. still trying to bring everyone together on the methodology and data issues) and deployment/implementation for maximum impact becomes the primary objective.

02 Technical/statistical validation

From an analyst perspective, model statistics like NRMSE, MAPE, R^2 can provide guidance on model selection and - to an extent - differentiate between model adjustments leading to a better vs. worse model. And by all means should be used and tracked while building models. In the end however, given that MMMs deal with small vs big data and require substantial business and marketing context to arrive at meaningful results, if treated as the only criteria for model selection and evaluation can lead to models being discarded by business stakeholders as unrealistic or simply wrong given wider business context.

03 MMM calibration/validation with lifts and/or other incrementality research

The very best MMM models do incorporate auxiliary incrementality analytics to arrive at more robust incrementality estimates. Methodologically very strong test-control research setups such as conversion or geo lifts can provide a valuable assessment of incrementality ground truth an MMM model can then ingest for increased overall precision, stability and robustness of ROI estimates. It also help solve the multicollinearity issues of the model which is one of the more common challenges as mentioned in the modeling watchouts section.

With respect to facilitating MMM implementation one of the best MMM output types out there is simply an optimization results chart or table. See below MMM Starter Kit on a basic optimization framework/slide to see how the first steps could look like.

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BASIC FRAMEWORK FOR MODEL-DRIVEN OPTIMIZATIONS

For an MMM model to bring value to the business it must be implemented and must impact real-life business decisions. Below we are sharing a very simple yet effective template for MMM based optimizations that has proven over the years a strong facilitator for MMM results deployment.

01 Work with business stakeholders to define optimization input and constraints

To ensure actionability of any optimizations start by aligning with business budget owners all the inputs and constraints. These usually involve total budget to be optimized, period of the optimization as well as min/max constraints on individual allocation options taking into account e.g. existing trading commitments or maximum inventory potential. If business growth is the target discuss the approach to total budget setting (e.g. calculate 3-5 scenarios with increasing budget to assess marginal ROI and total ROI dynamics)

02 Define business-as-usual (bau) scenario as a benchmark

To put MMM optimization in context and report improvement, define and calculate incremental sales uplift and ROI for a business-as-usual scenario - this can be an already existing allocation plan that has been worked out by the marketing department or simply last year shares of spend applied to new year's budget.

03 Calculate an optimized scenario based on MMM

Recommend optimized budget allocation using response curves (saturation curves) from the MMM model to account for diminishing returns to scale. Be mindful of marginal ROI - i.e. the return on the next dollar spent given a certain initial budget level - as opposed to looking only at total budget ROI. Be sure to calculate improvement vs the BAU scenario - typical MMM optimizations show an improvement in incremental sales/ROI in the range of 15%-25%, but this can vary greatly depending on optimization constraints and previous incrementality-based optimizations.



QUESTION 3

WHAT'S NEXT

Final model is not the end in a similar way monthly gA report is not. It needs to work for Your company as a living organism (although models are not necessarily that often updated). This is where loads of projects ends while in fact here those should start bringing value to business. So how to make it live?

It's a journey

It's a continuous process rather than one off exercise - in MMM we build a model that should describe and explain how different factors (both those that we control and those we do not) impacted (in past) our business outcomes. It is common that first iterations of a model are far from being perfect and only iterative improvements make it useful at the end. And this process is the first step to successful transformation measurement project into business project by gaining trust and understanding for the tool itself. Get buy-in from business and explore opportunities of frequent deliveries of updates which will make Your model Source Of Truth (SOT)

And it's our (organization) journey - not just analytical project

As MMM is designed for strategic (also budget) decisions it's inevitable that it's widely accepted in the organization. As some may argue that it's a "black box" it's key to build trust and acceptance by education and inclusion in the whole process. Starting from defining business questions, identifying key data sources, through data collection stage, iteration of first results with business stakeholders, to validation MMM view with current source of truth. On all these stages BI/analytics team plays PM role while relevant business stakeholders are must.

Let's do it together

Historically modeling was limited to data scientists who understand and can run code in R or Python. Today there are several solutions that can be used to include a wide set of stakeholders in the modeling process. SaaS platforms, no code/ low code solutions helps include in the process almost anyone. It's an interesting tool for building organizational transparency.

How does this plugs in?

Ultimately all tools used in the organization are helping in making the same decisions about marketing strategy. In this context it's key to align how modeling will fit into an existing set of tools and how an organization will make a decision based on it. Most common approach is on hand to use MMM as a source of hypothesis for testing and on the other hand to leverage it's holistic view as an umbrella connecting dots that alternatively stays in siloes (eg. web, app, offline - if applicable). It also adds a view where it is blurred by missing or incomplete data (opt out etc). But often it's hard to establish this position from day one. That is why triangulation is key - cross validation and cross interaction with experiments and attribution. In practice it means sometimes redefinition of KPIs for teams (as often those are based only on attribution tools) or building a "sandbox" approach where teams are welcomed to make decisions based on new data source and test the outcomes before scaling through the organization.



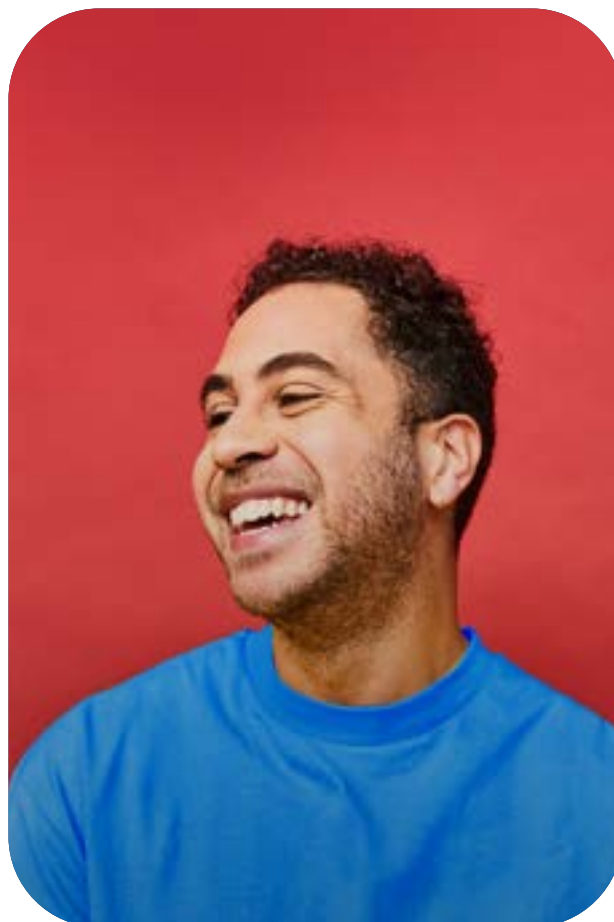
3,2,1... Live!

When MMM settles as a trusted tool, it's a great source of hypotheses that can be tested and cross validated. Frequent interactions with business on model outcomes provide ideas and hypotheses for strategy improvements. This is the way to truly embed test and learn culture in an organization which is equipped with a holistic 360 measurement set up. That's the moment where all key work streams in the org should cross - branding, user acquisition, LTV, pricing, product - they all should iterate with MMM, feed it and use it for better strategies in their own areas.

Shine

We all know how important good marketing of good work is. It's not different from measurement. Teams which have built a complete, holistic measurement framework for performance by adding MMM into the toolkit should also consider how this will be communicated back to organization and beyond (with care). It's an important step in transforming "siloes, measurement tool" into value that is brought to business by implementation of it. Internal papers, QBRs, mailings, company-wide meetings - each organization has its own way and this should be used for telling MMM story within the org.

In some cases external publications can also serve well - feedback from the ecosystem is definitely a positive stimulus and confirmation of good strategy. Of course in external coms more focus goes to generic case study rather than detailed business results - but here a lot depends on organizational culture.



And repeat!

Models are often attached to markets which means that running complex, multimarket business You need to multiply the effort to build multiple models. With so rapidly changing economies it's also essential to have models updated frequently to keep them accurate - luckily latest with open-source tools, SaaS solutions, semi automated, AI-supported methodologies and processes it is possible now. Any advertiser (including performance only ones) can now benefit out of this technique.

With an evolving ecosystem, the tool is evolving as well. Some may say that last 20 years was the attribution era - all businesses relied on it and now the MMM era has started. But it's important to understand that this will be changing as well - key factor to success is to embrace it, prepare and use it for building Your competitive advantage through test and learn culture not only test and learn tools.

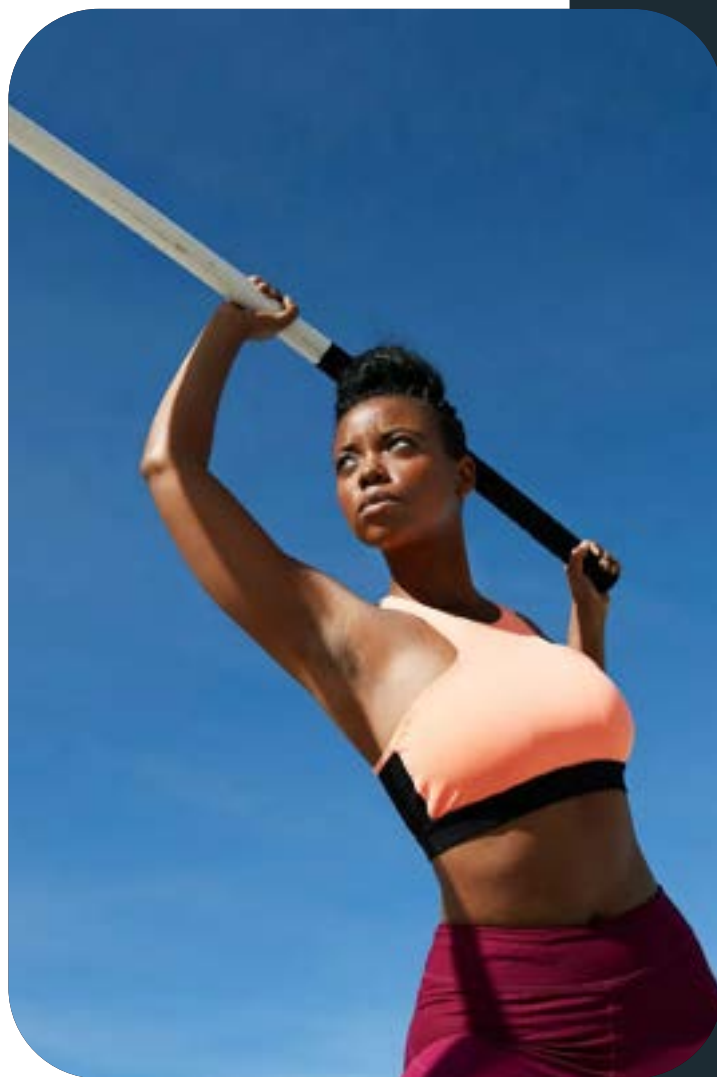
LESSONS LEARNED FROM IMPLEMENTING THE MMM OMNICHANNEL RETAIL

Allocating significant analytical resources is a must

Quality MMM, especially with deep-dive results into in-channel ROI performance, is simply a lot of work and it is not a commitment to be taken lightly. Think of it as a large separate project that will involve your/your team's resources rather across months than weeks. Do not just add an MMM project on top of your current workload, make room for it and commit/shield your resources from other priorities while you execute. Esp. during the first project when a lot of new skills and capabilities for your internal analytics team get tested with trial by fire. For troubleshooting and quality assurance, esp. in the beginning, it's good to have someone experienced by your side - either an external resource with significant MMM experience or an internal expert e.g. from other markets/other analytics centers of excellence, but someone with whom you will be able to discuss key data gathering and modeling decisions and who can assist in solving the operational challenges. And there surely will be challenges to be solved.

Building a model is an iterative process

The difference between our first and final model was really significant in terms of model quality, business fit as well as the business facts/events we were able to measure and quantify using the model. Be prepared to experiment and iterate what variables are included in the model and how they are included (feature engineering) to maximize alignment with key business questions as well as the reality of sales dynamics happening within the modeled period. Think deep about what a given variable actually represents and what impact on consumer actions we were able to capture with it in the models.





Understand model ambiguity and how it translates into communicated results

MMM model is a small data model and in practice we are often tempted to push the boundaries in terms of the number of variables included in the model, their interrelationships as well as individual factors' historical variance/scale (in terms of media investments we want to measure individually). But at the same time you need to be mindful of model results which are really robust (e.g. large historical spends with significant variance/dynamics) vs. those which are rather directional/require further validation (e.g. small spends or only very short execution/campaign). Look for additional incrementality research to calibrate and double-check your models - Meta conversion lifts provide a great auxiliary measurement to mitigate the risks and help with model ambiguity.

Plug it in and share

For both of our divisions - traditional retail and e-commerce MMM was a new thing. Securing buy in from the beginning enabled us to plug it in into existing BI systems and inform decisions especially those on omnichannel strategy. As for any new project it required iterative interaction with a net of stakeholders, getting them to understand the process of getting the results as well as the results themselves. I believe often this part may be underestimated by analytical teams but it's one of the most important for driving impact out of the project.

Scaling

First implemented models reassured us that the only way of truly leveraging the value of MMM is to build it inhouse. Otherwise it wouldn't be possible to use it at scale - with such detailed view, across our main markets, as often as we need. With first models we've also built processes, data flows and frameworks that will be used for next markets to make the modeling process fast and agile for the future.

LESSONS LEARNED FROM IMPLEMENTING THE MMM OMNICHANNEL RETAIL

